

# Weber State University 2018-19 Catalog

(captured 4/4/18) (The pdf version is only for specific use. Students, please view the online catalog at <http://catalog.weber.edu/>)

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# University Profile

## **Overview**

Weber State University is an exceptional comprehensive university providing associate, bachelor and master's degrees to meet the needs of the region. WSU graduates are broadly educated, capable and prepared for meaningful careers, graduate and professional schools, and civic engagement. The hallmark of the university is excellent teaching with extraordinary interactions between faculty and students. WSU offers a wide and diverse variety of degrees/programs (see Programs Sorted by Degree or Programs Sorted by Major/Minor) - the largest and most expansive undergraduate program in the State of Utah. With a student body of over 26,000 drawn predominantly from Utah, but also including students from 49 states and 60 foreign countries, WSU takes pride in its student-centered environment for learning and believes that quality education is founded upon close associations between faculty and students.

WSU is distinguished by outstanding academic programs that recruit motivated students to work with faculty to create and share knowledge. More than fifty academic departments and programs in seven colleges provide learning opportunities for a diverse spectrum of students, including grants and support for undergraduate research, community-based and service learning, an Honors program, and a Bachelor of Integrated Studies (BIS) program. The Office of Undergraduate Research (OUR) and the Center for Community Engaged Learning help to engage students in learning both inside and outside the classroom, and the Honors program provides small classes in a rich, supportive, and challenging academic setting. The BIS offers students the opportunity to design their own degrees with three areas of academic emphasis meant to prepare them for specific career paths or graduate study.

Academic studies are complemented by a wide range of extracurricular activities, including student government, intramural and intercollegiate athletics, and award-winning performing arts groups. In addition, the Student Success Center along with the First Year Experience program helps new students adjust to the university community, while a variety of support services aid those with particular needs.

The WSU Ogden campus has 60 buildings on 526 acres that house abundant classrooms and laboratories, excellent student computing facilities, outstanding performing arts auditoriums, a spacious library, and a well-equipped health and fitness center. An area of continued growth is WSU-Davis, which provides instruction to students on a new high-tech campus in Layton. In addition to its Ogden and Davis campuses, WSU offers courses throughout the state and Intermountain West and is a leader in online instruction.

## **Historical Perspective**

Weber State University was founded in Ogden, Utah, as Weber Stake Academy on January 7, 1889, by the Weber Stake Board of Education of the Church of Jesus Christ of Latter-day Saints. The 1933 Utah Legislature established Weber College as a state junior college and placed it under the control of the Utah State Board of Education. Following World War II the college outgrew its downtown campus and moved to the present 400-acre site, spectacularly perched on the mountainside overlooking Ogden and the Great Salt Lake.

In 1959 the Utah Legislature authorized the addition of upper division courses, leading to award of the first baccalaureate degrees by Weber State College in 1964. The 1969 Legislature created the Utah System of Higher Education, comprising nine public institutions of higher learning, including Weber State College. The system is governed by a State Board of Regents, and each institution has its own Board of Trustees; members of both boards are appointed by the governor.

In 1990 the state legislature renamed the institution Weber State University, effective New Year's Day 1991, appropriately symbolizing its role as Utah's premier public, undergraduate university.

## **Mission Statement**

Weber State University provides associate, baccalaureate and master degree programs in liberal arts, sciences, technical and professional fields. Encouraging freedom of expression and valuing diversity, the university provides excellent educational experiences for students through extensive personal contact among faculty, staff and students in and out of the classroom. Through academic programs, research, artistic expression, public service and community engaged learning, the university serves as an educational, cultural and economic leader for the region.

## **WSU Mission Core Themes Assessment**

Each of the mission core themes has objectives, indicators of achievement and empirical assessment measures of the indicators. This section contains summary assessment data for the indicators of achievement for each of the core theme objectives.

### **ACCESS**

- Programs and degrees are responsive to student needs
- Students earn degrees
- Graduates have "next step" success
- Student enrollments reflect support for non-traditional students
- Student enrollments reflect diversity and inclusion

### **LEARNING**

- Students participate in learning experiences such as undergraduate research, service learning, and other forms of experience-based learning
- Students experience extensive contact with faculty, staff and other students
- Students are satisfied with student support services
- Students achieve General Education learning goals
- Students achieve the learning goals of Major programs
- Faculty engage in creative and scholarly activity
- Faculty perceive that WSU fosters knowledge creation, free inquiry and free expression for faculty and students.

### **COMMUNITY**

- WSU contributes to Pre K-12 education and professional development
- WSU promotes preparation for higher education
- The community participates in a diverse offering of WSU events
- WSU facilitates community development through public service
- WSU facilitates economic development in the region through professional development and technical support

## **Accreditation**

Weber State University is regionally accredited by the Northwest Commission on Colleges and Universities. All applied technical education programs are accredited by the Utah State Office of Vocational Education. Teacher education programs are accredited by the National Association of State Directors of Teacher Education and Certification. In addition, specific professional agencies currently accredit or approve the following departments and programs:

### **College of Engineering, Applied Science & Technology**

Automotive Service Technology [AAS programs] (*National Automotive Technicians Education Foundation*)

Design Engineering Technology, Electronics Engineering Technology, Manufacturing Engineering Technology, Mechanical Engineering Technology (*Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.*)

Electronics Engineering (*Engineering Accreditation Committee [EAC] of ABET, Inc.*)

Interior Design--Technical Sales BS/BA (*Council for Interior Design Accreditation [CIDA]*)

### **Telitha E. Lindquist College of Arts & Humanities**

Music (*National Association of Schools of Music*)

Visual Arts (*National Association of Schools of Art and Design [NASAD]*)

## **John B. Goddard School of Business & Economics**

All undergraduate and graduate programs in business (*AACSB - Association to Advance Collegiate Schools of Business*)

School of Accounting & Taxation-all undergraduate and graduate programs in accounting (*AACSB - Association to Advance Collegiate Schools of Business*)

## **Jerry and Vickie Moyes College of Education**

Athletic Training (*Commission on Accreditation of Athletic Training Education*)

Early Childhood and Early Childhood Education (*National Association for the Education of Young Children Teacher Education Standards, National Council for Accreditation of Teacher Education*)

Family Studies (*National Council on Family Relations Standards for the Certified Family Life Educator*)

Teacher Education (*National Council for Accreditation of Teacher Education, Utah State Board of Education Standards*)

## **Dr. Ezekiel R. Dumke College of Health Professions**

Dental Hygiene (*Commission on Dental Accreditation of the American Dental Association*)

Emergency Care & Rescue (*Commission on Accreditation of Allied Health Education Programs, (CAAHEP) Committee on Accreditation of Educational Programs in the Emergency Medical Services Professions*)

Health Administrative Services (*Association of University Programs in Health Administration*)

Health Information Management, Health Information Technology (*Commission on Accreditation for Health Informatics and Information Management Education*)

Master of Health Administration Program (*Commission on Accreditation of Healthcare Management Education*)

Medical Laboratory Sciences (*National Accrediting Agency for Clinical Laboratory Science [NAACLS]*)

Nursing (*Accreditation Commission for Education in Nursing [ACEN]*)

Respiratory Therapy (*Commission on Accreditation for Respiratory Care [CoARC]*)

## **College of Science**

Chemistry (*American Chemical Society*)

## **College of Social & Behavioral Sciences**

Social Work (*Council on Social Work Education*)

## **Division of Student Affairs**

Nontraditional Student Hourly Childcare Program (*National Association for the Education of Young Children*)

## **Catalog Information**

The Weber State University catalog is maintained by the Registrar's Office based on approved curricula. Although some areas of information are covered in detail, much of the content is presented in a general way. The catalog is not to be considered a binding contract between Weber State and any student or other institution. Weber State reserves the right

to change its regulations or course offerings as conditions require during the period of any student's attendance. Students should refer to the official schedule of classes online which is available before and during registration each semester.

### **Assessment at WSU**

WSU routinely conducts campus-based studies of student attitudes, student achievement, student satisfaction, and personal, professional and career development. These studies are grouped under the heading of student outcomes assessment. Each WSU student is expected to participate in outcomes assessment. While every student is not selected for participation in every activity, it is likely that an individual student will be involved in one or more assessment activities during the college years. It is only through cooperative participation in the assessment process that WSU can better understand itself and better serve its students.

*For more information on outcomes assessment at WSU, contact the Office of Academic Affairs, MAB 306, 801-626-6006, <http://www.weber.edu/assessment>.*

### **Campus Safety and Nondiscrimination Policy Statement**

#### **CAMPUS SAFETY**

Your safety while attending WSU is extremely important to us. The university maintains a campus alert system called Code Purple that provides notices about significant emergency situations on campus such as snow closures, power outages, gas leaks, or other potentially dangerous threats. We encourage you to sign-up for campus alerts at [weber.edu/codepurple](http://weber.edu/codepurple).

To report any crime or emergency, call **911** or University police at **801-626-6460**, 3734 Dixon Parkway, Ogden, UT 84408.

The university also publishes an Annual Security Report and Fire Safety Report which provides information about crime statistics, crime prevention, alcohol and drug policies, fire statistics, etc. These reports can be found online at <http://apps.weber.edu/wsuiimages/police/2014-15%20Clery%20Book.pdf>. You may request a physical copy by calling **801-626-7440** or visiting the WSUPD at 3734 Dixon Parkway, Ogden, UT 84408.

#### **NONDISCRIMINATION**

Weber State University is committed to protecting the personal rights of all students, employees, and visitors by providing an environment free from harassment and other forms of discrimination based upon race, color, national origin, pregnancy, genetics, age (over 40), disability, religion, sex, sexual orientation, gender identity/expression, veteran, active military status, and other classifications protected by law. Such an environment is a necessary part of a healthy learning and working atmosphere. Unlawful discrimination undermines human dignity and the sense of community WSU seeks to foster.

Discrimination and harassment are illegal and specifically prohibited by the constitutions, statutes, precedents and regulations of the United States and Utah. It is the policy of the University to vigorously enforce these laws among its students and employees.

Individuals who believe any of these rights have been violated should review information available at Affirmative Action/Equal Opportunity website (<http://weber.edu/aeo>) and PPM 3-32, available at [http://www.weber.edu/ppm/Policies/3-32\\_DiscriminationHarassment.html](http://www.weber.edu/ppm/Policies/3-32_DiscriminationHarassment.html).

#### **Discrimination and harassment complaints or those who need assistance with reasonable accommodations may contact:**

**Executive Director of AA/EOAA-EO@weber.edu 801-626-6239 Miller Administration Building, Room 101, 3850 Dixon Parkway, DEPT. 1022, Ogden, UT 84408-1022**

Note that persons who participate in this grievance procedure in good faith are protected against retaliation for doing so.

Questions may also be directed to:

1) Utah Antidiscrimination and Labor Division  
P.O. Box 146630 Salt Lake City, UT, 84114 6630  
Street Address: 160 East 300 South, 3rd Floor, Salt Lake City, UT 84111  
Phone: 801 530 6801  
Email: [discrimination@utah.gov](mailto:discrimination@utah.gov)

2) Equal Employment Opportunity Commission  
Phoenix District EEOC Office  
3300 North Central Avenue, Ste. 690  
Phoenix, AZ 85012 2504  
Phone: 602 640 5000  
Fax: 602 640 5071

3) Office for Civil Rights  
Denver Office  
U.S. Department of Education  
Cesar E. Chavez Memorial Building  
1244 Speer Boulevard, Suite 310  
Denver, CO 80204 3582  
Telephone: (303) 844 5695  
Facsimile: (303) 844 4303  
Email: [OCR.Denver@ed.gov](mailto:OCR.Denver@ed.gov)

Sexual harassment is a type of discriminatory harassment involving unwelcome conduct directed against persons based on their sex, sexual orientation or gender identity/expression which is prohibited by WSU. Sexual harassment includes unwelcome sexual advances, requests for sexual favors or other verbal or nonverbal conduct of a sexual nature, including potentially criminal conduct such as rape, sexual assault, sexual exploitation, dating violence, domestic violence and stalking. Sexual violence is a severe form of sexual harassment. Individuals who experience or become aware of any form of violence, sexual violence, or sexual harassment are encouraged to immediately report such behaviors. To report any emergency or to file a police report regarding these behaviors, call **911** or University police at **801-626-6460**, 3734 Dixon Parkway, Ogden, UT 84408. For help responding to non-emergency situations involving these behaviors, contact the Executive Director of AA/EO, [AA-EO@weber.edu](mailto:AA-EO@weber.edu), Miller Administration Building, Room 101, 3850 Dixon Parkway, DEPT 1022, Ogden, UT 84408-1022, or **801-626-6239** or a Survivor Advocate with the Women's Center at **801-626-6372**. For more information, including options, processes, and a list of on and off campus resources, go to: <http://www.weber.edu/safeatweber/>.

The university provides training materials regarding sexual assault, violence prevention, dating violence, domestic violence, stalking, alcohol abuse, and how to assist if you are a bystander. These materials are a helpful guide for safe practices on and off-campus. The university expects all students, faculty and staff to complete this training. Go to [portalapps.weber.edu/everfiSSO/](http://portalapps.weber.edu/everfiSSO/).

### **Commitment to an Inclusive Community**

Pivotal to Weber State University's mission is the need to embrace and value the diversity of its members. Acknowledging the uniqueness of each individual, we seek to cultivate an environment that encourages freedom of expression. Because the University is a community where inquiry is nurtured and theories are tested, every individual has the right to feel safe to express ideas that differ from those held by other members of the community. However, all persons who aspire to be part of our campus community must accept the responsibility to demonstrate civility and respect for the dignity of others. Recognizing that the proper balance between freedom of expression and respect for others is not always apparent or easy to achieve, we must continually challenge ourselves and each other in an atmosphere of mutual concern, good will and respect. Therefore, expressions or actions that disparage an individual's or group's ethnicity, gender, religion, sexual orientation, marital status, age or disability are contrary to the mission of Weber State University.

### **Exceptions to University Policy**

All students at Weber State University have the right, with appropriate rationale, to request an exception to University policies or requirements. Help with preparing requests for exceptions can be obtained from the Registrar's Office, SC 101, 801-626-6061, or from the Assistant Dean of Students, Davis Campus Room 261, 801-395-3460.

### **Student Code**

Students attending the University are expected to adhere to certain standards as defined in the Weber State University Student Code, a copy of which is available from the Office of the Dean of Students (Miller Administration Building, Suite 317) or on-line at <http://weber.edu/ppm/6-22.html>.

# Enrollment Services and Information

Weber State University is continually working to make it easier for students to access information and receive the assistance they need. Students may apply for admission and access registration, transcripts, and a lot more online at *weber.edu*. Academic advisement, admissions, registration and other enrollment services are also provided at the Davis Campus. Class schedule information for specific semesters is available online at *weber.edu*.

*Information on records, grading and transcripts; academic standards and eligibility; credit by examination or petition; and graduation requirements is provided in this catalog under the Academic Info & Policies.*

## **The Office of Admissions**

**Admissions Director:** Scott Teichert

**Associate Director of Admissions:** Andrew Young

**Location:** Student Service Center, Room 201 and Room 210

**Telephone:** 801-626-6050

**Internet Address:** [www.weber.edu/admissions](http://www.weber.edu/admissions)

The Office of Admissions encourages future students to reach their educational dreams by providing exceptional service and personal support through the exploration, application, acceptance, transfer, orientation and initial enrollment processes.

## **Recruitment Services**

**Location:** Student Service Center, Room 210

**Telephone:** 801-626-6050

**Email:** [www.weber.edu/getintoweber](http://www.weber.edu/getintoweber)

Admissions Advisors and staff help future students navigate the admission process and provide general information on transferring from another institution, scholarships, programs and majors. Additionally, staff regularly visit high schools and community colleges to inform students, educators, and parents of the educational programs and opportunities available at Weber State University.

Members of the Office of Admissions, including Student Ambassadors, provide campus tours and regularly host campus visit opportunities. Campus visits may be scheduled through the Office of Admissions by calling 801-626-6050 or by visiting [weber.edu/getintoweber](http://weber.edu/getintoweber).

## **Orientation**

**Location:** Student Service Center, Room 201

**Telephone:** 801-626-6050

**Internet Address:** [weber.edu/orientation](http://weber.edu/orientation)

All new students are strongly encouraged to complete a New Student Orientation. This experience will help connect students with academic advisors, friends, and resources, easing the transition into the WSU community. During Orientation, students will have the opportunity to become familiar with:

- Student services, student involvement and activities, and Weber State's campus
- eWeber account and how to register for classes
- Procedures for obtaining parking permits, Wildcards, and purchasing textbooks
- Policies and procedures
- General Education requirements
- Program specific degree information

View dates and times for New Student Orientations and register online at [weber.edu/orientation](http://weber.edu/orientation).

## **Transfer Advisement**

**Location:** Student Service Center, Room 201

**Telephone/Appointments:** 801-626-6050

**Email:** admissions@weber.edu

**Internet Address:** weber.edu/transfer

**Transfer Guide:** weber.edu/transferguide

Transfer students are strongly encouraged to contact the Office of Admissions for valuable information and assistance while making the transition to Weber State University. This office provides advisement on transferring courses and general education requirements, information on admission, scholarships and financial aid, and more. In addition, students can learn how a course might transfer to Weber State from another school by exploring the transfer guide on the Office of Admissions website.

**NOTE:** The Office of Admissions does not determine how courses will transfer; those decisions are made by academic departments. To see how your credits will transfer, first check the transfer guide to see if an equivalency has already been established. If an equivalent course does not exist, students may either submit the *transfer request form* on the transfer guide website or apply for admission providing official transcripts.

## **Admission Process**

Before students may take classes at Weber State University, they must first be admitted. To apply for admission a student must submit a completed application for admission, a \$30 non-refundable processing fee and official high school/college transcripts to the WSU Admissions Office located in the Student Service Center, Room 201. This may also be done by mail:

Weber State University  
Admissions Office  
3885 West Campus Drive Dept. 1137  
Ogden, UT 84408-1137

Students can complete an online application by going to [www.weber.edu/apply](http://www.weber.edu/apply).

For more information visit the above Internet address or call 801-626-6050.

*Refer to the Academic Calendar for semester dates.*

*Specific guidelines for international students are described below.*

Acceptance letters are sent to students for the academic semester indicated on their application. A student must inform the Office of Admissions if they wish to begin school in a semester earlier than that listed on his/her acceptance letter.

*Important: All information submitted for admission will be kept on file for 6 months. If applicants do not enroll within 6 months, the information will be destroyed.*

## **Freshman Students**

Students will be considered freshmen if they meet any of the following criteria:

- Students who have never attended any college or university.
- Students who graduated from high school or have a GED.
- Students with fewer than 30 semester credit hours from another university or college.

## **Application Steps for Freshman Admission**

1. Submit an application for admission.
2. Pay the \$30 application fee (non-refundable processing fee).

3. Submit an official transcript from the high school of graduation. The transcript should be sent directly from the high school to the WSU Admissions Office or brought into the Admissions Office in an envelope sealed by the school.
4. Submit an official transcript for any college-level course work completed through another institution. The transcript should be sent directly from the institution to the WSU Admissions Office.

### **Transfer Students**

Students who have attended another college or university after high school graduation, and have completed the equivalent of at least 30 semester credit hours, will be considered a transfer student.

*Students who have completed fewer than 30 semester hours will be considered freshman (see above). These students will also receive transfer credit based on the guidelines below.*

### **Application Steps for Transfer Students**

1. Submit an application for admission.
2. Pay the \$30 application fee.
3. Submit an official transcript from EACH college or university previously attended. The transcript must be sent directly to the WSU Admissions Office.

### **Transfer Credit**

Weber State University accepts transfer credit from regionally accredited colleges and universities. Associate of Arts (AA) and Associate of Science (AS) degrees earned at any higher education institution accredited by one of the following six regional accrediting associations (recognized by the U.S. Department of Education) will satisfy all general education core and breadth requirements provided the granting institution was regionally accredited at the time the degree was awarded.

- North Central Association Commission on Accreditation and School Improvement
- New England Association of Schools and Colleges
- Middle States Association of Schools and Colleges
- Southern Association of Schools and Colleges
- Western Association of Schools and Colleges
- Northwest Association of Schools and Colleges

Transfer credit for college courses that are remedial or developmental **will not** be transferred to WSU. Credit will be carried on the student's transcript by WSU but may not apply toward certain degree requirements. WSU Academic Departments will evaluate and determine whether the transfer credits will be acceptable toward their major or minors.

For students who are transferring from a non-regionally accredited institution, please refer to Credit by Examination or Petition in Academic Information.

### **Interstate Passport**

The Interstate Passport enables successful transfer of a block of lower-level general education learning to other institutions participating in the Interstate Passport Network. Students who complete their Passport at Weber State University will not be required to repeat or take additional course work to meet lower-division general education requirements in the Passport's nine areas when they transfer to any other Passport institution. Weber State University will begin transcribing the Interstate Passport following the Spring 2017 semester. Students with an interest in achieving the Passport should see our website at [weber.edu.passport](http://weber.edu.passport) and contact their Advisor.

## International Students

International applicants with no prior college or university credit will be considered for admission by submitting evidence of the U.S. equivalent of a high school diploma. International applicants who have attended a U.S. college or university and have at least 30 semester hours and a 2.0 GPA will be considered a transfer student.

### Application Steps for International Students

The following must be submitted at least 60 days prior to the start of the semester in which the applicant plans to enroll.

1. A completed international application for admission. (see [weber.edu/issc](http://weber.edu/issc))
2. A \$65 USD non-refundable application fee (check or money order payable to Weber State University).
3. A copy of the identification page of the passport.
4. A Financial Guarantee consisting of the following documents.

*Bank Statement or a Bank Letter:* Indicating the required funds are available for use. This document may **NOT** be faxed or printed from the internet; it must be printed on bank letter head with a signature and stamp from a bank official. The bank statement or letter may be from any banking institution in the world. Please make sure that the amount being verified by the bank is listed in U.S. dollars (\$).

*Financial Guarantee Form:* Must be filled out by the sponsor, which is the person that provided the bank statement. The sponsor will need to fill out the form completely. If the bank statement is from the applicant's personal bank account, then a Financial Guarantee form is not required.

5. Official transcripts, certificates and diplomas from all high schools, colleges, and universities previously attended. To be considered official they must either be sent directly from the school to Weber State University or be in a sealed envelope. The transcripts must show course work taken and marks earned. Please send them in the original language as well as a certified English translation, if appropriate.

**International Transfer Students:** Need to provide all items listed above and also the items listed below.

6. Copy of current I-20 from a U.S. educational institution and a copy of their visa.
7. Transfer Authorization form, which will be provided by WSU once all other application requirements have been met. Please inform the school you previously attended that you wish to transfer to WSU and submit the Transfer Authorization form to them to be complete and faxed back to WSU.

*NOTE: If you are transferring from a school outside of the U.S., you will be considered a freshman until your credential evaluation report is received and entered into your student record by the WSU Admissions office. If you wish to receive credit for college/university course work completed outside the U. S., you will need to send your transcripts to a credential evaluation company accepted by WSU. You may view a list of accepted credential evaluation companies at [weber.edu/issc](http://weber.edu/issc). Please request that the course by course evaluation be sent to the WSU International Student and Scholar Center.*

**International Graduate Applicants:** If you wish to apply for a graduate program at WSU, you will need to apply for admission with the graduate program in addition to applying to the University as an international student. You will need to meet the graduate program's admission requirements and the International Student admission requirements before you will be issued an I-20.

**TOEFL or IELTS Requirements:** A TOEFL or IELTS score is not required for admission to WSU. However if an official score report with the following minimum scores is provided, the student will not be required to take Learning English for Academic Purposes (LEAP) courses.

### Minimum placement scores:

TOEFL Internet Based Score: 61 or higher

TOEFL Paper Based Score: 500 or higher

IELTS Score: 6.0 or higher, with a minimum of 5.0 on each subscale

If a TOEFL or IELTS score is not provide or the score is below the required score, you will be required to take a placement test to determine your English proficiency level.

### **Additional Requirements**

International students must attend fall and spring semesters and take at least 12 credit hours each semester. All international students are required to meet with an International Student advisor immediately after arriving on campus to receive individualized guidance. The International Student advisor gives assistance to students in meeting U.S. Immigration and Customs Enforcement requirements concerning visas, passports, permits, permission to work, and related matters. Students are also assisted in making academic, social, and environmental adjustments to campus and community life.

International students must carry medical insurance while studying in the U.S.

### **Graduate Program Information**

WSU offers fourteen master's degree programs. More information is available at [weber.edu/graduateprograms](http://weber.edu/graduateprograms).

- Master of Arts in English (MA) Telitha E. Lindquist College of Arts & Humanities
- Master of Professional Communication (MPC) Telitha E. Lindquist College of Arts & Humanities
- Master of Accounting (MAcc) John B. Goddard School of Business & Economics
- Master of Business Administration (MBA) John B. Goddard School of Business & Economics
- Master of Taxation (MTax) John B. Goddard School of Business & Economics
- Master of Education in Curriculum and Instruction (MEd) Jerry and Vickie Moyes College of Education
- Master of Science in Athletic Training (MS) Jerry and Vickie Moyes College of Education
- Master of Health Administration (MHA) Dumke College of Health Professions
- Master of Science in Nursing (MSN) Dumke College of Health Professions
- Master of Science in Nursing-Nurse Practitioner (MSNP) Dumke College of Health Professions
- Master of Science in Radiologic Sciences (MSRS) Dr. Ezekiel R. Dumke College of Health Professions
- Master of Science in Respiratory Therapy (MSRT) Dumke College of Health Professions
- Master of Science in Criminal Justice (MCJ) College of Social & Behavioral Sciences
- Master of Science in Computer Engineering (MSCE) College of Engineering, Applied Science, & Technology

### I. Application Procedures

To apply to a graduate program all individuals must contact the graduate program for specific admissions requirements. The following items must be provided to the specific graduate program office:

1. A completed online application accompanied by the nonrefundable application fee (as designated by the Graduate Council).
2. A bachelor's degree from a regionally accredited college or university is required for admission as a graduate student at Weber State University. An official transcript from each previously attended college and/or university (except WSU) must be sent directly from each institution to the graduate program. Transcripts must be submitted for all coursework above the high-school level and all prior degrees. For international students, transcripts must be accompanied by a professional degree and transcript evaluation, which must be sent directly to the graduate program by a WSU-approved foreign credentials evaluation service. See International Student Admissions website for further details. Transcripts submitted as application credentials become the property of the Weber State University and will not be returned to the applicant.

3. Admissions tests may be required by the specific graduate program (GRE, GMAT, Miller's Analogies Test, etc.), as well as proof of English language competency for international applicants. Applicants should request that their test score reports be sent directly to the graduate program to which they are applying, or to WSU if a specific institutional code is not available for the graduate program.

## II. Admission Requirements

Admission to a graduate program at Weber State University is based on the applicant's academic ability, past performance and evidence of a reasonable chance of success within that program. Selection for admission is made without regard to race, color, ethnic background, national origin, religion, creed, age, lack of American citizenship, disability, status of veteran of the Vietnam era, sexual orientation or preference or gender.

Admission is competitive and solely at the discretion of the graduate program to which the applicant has applied: meeting minimum admission requirements does not guarantee admission. Minimum requirements for admission to a Weber State University graduate program are as follows:

- A bachelor's degree from a regionally accredited college or university that will be completed before matriculation into the graduate program (see the U.S. Department of Education website for a list of recognized regional accreditation agencies). A satisfactory GPA on all undergraduate work. Contact the graduate program for specific GPA requirements.
- Appropriate admissions test scores if required. (Contact graduate program for specific admissions test requirements.)
- A completed application, along with the submission of all required supporting materials (contact graduate program office for specific requirements).

*Note: Individual graduate programs may have additional requirements. Information concerning admission to and requirements for these programs is located in the sections of this catalog for the colleges indicated above.*

### **Departmental Admissions**

For a number of programs, students must submit a separate application and fee and must meet additional admission requirements specific to that program. More detailed information is available in this catalog under the Admission Requirements listed for each program. Students should contact the academic department responsible for the program in which they are interested for more information about specific admission and/or prerequisite requirements.

### **Admission Requirements**

#### **Freshman Students**

New freshmen students, and transfer students with fewer than 30 semester credit hours, will be admitted to the University on the basis of the following:

- Verification of high school graduation from an accredited high school or General Education Development test (GED) with scores established by the University. (See Applicants Without High School Diplomas.)
- Submission of official college or university transcripts if college credit has been earned.

#### **Applicants Without High School Diplomas**

Applicants who are not high school graduates must present evidence of high school equivalency to be considered for admission. High school equivalency may be satisfied in one of the following ways:

- Passing the General Education Development test (GED) with an overall score of 2250 or above with no individual score below 450. Applicants who plan to submit GED scores in lieu of a high school diploma are not eligible to take the test until they are 16 years old.
- Passing the American College Test (ACT) with a composite score of 21 or above (SAT score of 1030 or above).

## **Transfer Students**

Transfer students will be admitted to the University on the basis of the following:

- More than 30 semester credit hours earned at an accredited institution with a cumulative college-level GPA of 2.00 or above.

Transfer students with a cumulative GPA below 2.00 will be referred to the Admissions Committee and may be considered for admission to WSU on warning or probation according to the current Academic Standards policy.

## **Admission Appeal Process**

An information sheet highlighting grounds for appeals to admission decisions is available at the WSU Admissions Office.

## **Utah Residency**

The Admissions Office classifies all applicants as either resident or non-resident based on information from the application for admission. Applicants whose credentials indicate out-of-state status are classified as non-residents. If there is doubt concerning resident status, an applicant is classified as a non-resident.

Non-residents who have reason to believe they can qualify for resident status should file a residency application with the Admissions Office. Applications are accepted only until the end of the third week of the current semester. Any application received after the third week will be considered for the following semester only.

Residency applications are available online at [weber.edu/utahresident](http://weber.edu/utahresident). Each application will be considered in accordance with the provisions of Utah Code Annotated 53B-8-102 and Utah State Board of Regents Policy and Procedures R-512 and WSU PPM 6-01.

## **Math and English Placement**

Upon admission to Weber State University, Math and English course placement is determined based on students' prior academic performance and test results. Fees may be charged for assessment tests and/or tutoring. Students may enroll in courses for which they meet the prerequisites. For specific information about placement, visit [weber.edu/placement](http://weber.edu/placement).

## **Special Admission Programs**

### **Concurrent Enrollment**

The Weber State University Concurrent Enrollment Program allows eligible high school juniors and seniors to fulfill both high school and university graduation requirements at the same time by attending WSU-approved high school classes taught by WSU approved teachers. These classes match the WSU course content and student performance criteria. These students, though not officially matriculated at WSU, still create a WSU official permanent transcript. WSU academic department representatives work closely with these teachers to provide professional development opportunities as well as to assure WSU standards are maintained.

*For updated information, visit [weber.edu/concurrent](http://weber.edu/concurrent).*

### **Early College**

**Location:** Student Service Center, Room 140

**Telephone:** 801-626-8953

Early College allows students to fulfill both high school and university graduation requirements at the same time by attending classes at the university while they are still in high school. University faculty teach classes, and the credits/grades from the Early College program become part of the student's permanent WSU transcript. Students are responsible for the university tuition and fees, although scholarships are available. Utah colleges and most out-of-state and private universities will accept Early College credits.

For more information, visit [weber.edu/earlycollege](http://weber.edu/earlycollege).

## **First Year Experience**

**Location:** Student Service Center, Room 140

**Telephone:** 801-626-6752

**Internet Address:** [weber.edu/fye](http://weber.edu/fye)

The First Year Experience (FYE) Program is designed to help incoming students make a successful transition into the university community. The program assists students in making progress toward fulfilling the following educational and personal goals:

- Acquiring a sense of competence as a student and becoming successful in college.
- Mastering academic skills, such as note taking, textbook reading, test taking, writing, and time management.
- Demonstrating knowledge and use of campus resources.
- Demonstrating effective interpersonal skills with a variety of people.
- Developing a sense of belonging to the WSU community through the connections with other students, teachers, mentors and WSU employees.
- Enhancing his or her mental, physical, spiritual and social health.

*The FYE Program is further explained below.*

## **Honors Program**

**Location:** Library, Room 324

**Telephone:** 801-626-7591

The Honors Program is designed to offer students of superior ability and motivation opportunities to broaden and enrich their academic program and accelerate their preparation for graduate work.

*The Honors Program is further explained on Engaged Learning, Honors, and Interdisciplinary Programs.*

## **Senior Citizen**

**Location:** Student Services Center, Room 201

**Telephone:** 801-626-6743

Utah residents age 62 and over are permitted to enroll on a tuition-free, audit basis. Senior citizens will be required to complete an application for admission and register at the Registration Office on or after the first day of class. Where applicable, senior citizens will be charged a fee for use of consumable materials. A \$10 per semester administrative fee will be charged and enrollment is limited to space availability.

## **Scholarships**

**Director:** Jed W. Spencer

**Location:** Student Service Center, Room 120

**Telephone:** 801-626-7569

**Internet Address:** [weber.edu/scholarships](http://weber.edu/scholarships)

WSU awards scholarships for achievement of excellence in either academics or specific activities as described below. Unless otherwise specified, all scholarships are for one year and are not renewable. New freshmen students are automatically considered for academic scholarships upon completion of the Admission Application. New students should complete the Financial and Scholarship Application to apply for non-academic scholarships. Continuing students must apply by the 2nd Monday in January for all scholarships, by updating their scholarship application in their eWeber student portal each year. It is important to apply early; the online application becomes available on September 1st each year.

*An award may be canceled if the Award Offer is not accepted within the specified time period.*

The priority deadline for scholarships is:

Continuing Students      2nd Monday in January

New Freshman              1st Friday in December

Transfer Students         March 1st

*Students may only have up to full tuition in academic and activity waiver combined.*

## **Academic Awarding Categories**

### **New Freshmen**

Scholarships include the Presidential Aletheia Scholarship (8 consecutive semesters of tuition waiver and general fees); High Honors, Honors, Achievement, Concurrent Enrollment Edge, and Sterling Scholar Winners. Awards may consist of up to full tuition, and are generally based upon an index score (determined by the high school cumulative grade point average and the composite ACT/SAT score - see the Scholarship Index Score Chart) or upon competition placement level.

### **Transfer Students**

Scholarships are awarded based upon cumulative GPA and completion of 30 GPA hours of college credit. Scholarships include High Honors, Honors and Achievement Awards.

### **Continuing Students**

Scholarships are based upon WSU cumulative GPA. A minimum of 12 semester credit hours at Weber State University is required for this category. Scholarships include High Honors, Honors, and Achievement.

## **Wildcat Activity Award Categories**

### **General Requirements**

- Must be registered full time (12 credit hours).

Activity scholarships are one-year awards waiving up to full tuition, and are based on the student's abilities or outstanding achievements. Activity scholarships (with the exception of leadership scholarships) may be renewed when the student meets the selection criteria established by the awarding department.

### **Scholarships for Specific Activities**

With the exception of leadership, students are required to contact the activity area to get information about specific requirements and auditions. Scholarships are available in the following areas:

**Performing Arts** - Band, Orchestra, Dance, Theatre Arts, Piano, Vocal. Advise contact prior to January 9, audition only, call 801-626-6437 for more information

**Debate** - Contact WSU Communication Department, 801-626-8924

**Cheerleaders** - Contact WSU Athletics, 801-626-6500

**Rodeo** - Contact Club Sports, 801-626-6476

**Signpost** - Student newspaper. Contact Signpost, 801-626-7974

**KWCR Radio** - Contact KWCR, 801-626-6299

**Visual Arts** - Contact WSU Visual Arts Department, 801-626-6455

**Club Sports** - Contact Club Sports, 801-626-6476

### **Emerging Leaders Scholarships**

These scholarships are available only to graduating high school seniors and transfer students. Students need not be student body officers to be considered. In addition to the scholarship application, students applying for a leadership scholarship must meet the following requirements:

1. Have a cumulative GPA of 3.0 or higher on a 4.0 scale.
2. ACT score: 18 or greater, or a SAT of 950 or greater.
3. Exhibit involvement in academic and community activities, with particular experience in leadership roles within the state of Utah. (Only Utah residents are eligible.)
4. Be accepted to Weber State University and will be attending in the next fall and spring semesters.
5. Successfully participate in the Emerging Leaders program as established by the Department of Student Involvement & Leadership.

*Students must apply for admissions/scholarships by the 2nd Monday in January. Portfolios are due February 1 - Send to: Aaron Newman, Student Involvement & Leadership Programs, 2102 University Circle, Ogden, UT 84408-2102.*

### **Donor Sponsored Departmental and Special Consideration Scholarships (Privately Funded)**

Privately funded scholarships are awarded according to the donor's specifications, which can be major-specific (often referred to as departmental scholarships), need based or special conditions. To apply for private donor scholarships, complete the Finaid and Scholarship Application by the 2nd Monday in January.

### **General Requirements**

- Maintain the minimum GPA specified by the scholarship (varies between 2.0 and 3.7).
- Register for the minimum number of credit hours specified by the scholarship (most scholarships require 12 credit hours).

### **Scholarships for Out-of-State Students**

Out of state students are eligible for tuition incentive programs or academic waivers. Tuition incentive programs include: Weber Edge, Alumni Legacy, the Western Undergraduate Exchange Program, and the 100 mile radius scholarship. Academic Waivers include High Honors, Honors, and the Achievement Scholarships. Nonresident waivers cannot be combined with tuition incentive programs. Current information for each program can be found on WSU website at [weber.edu/Scholarships](http://weber.edu/Scholarships).

### **Nonresident Academic Scholarships**

Academic nonresident scholarships for new freshmen students are determined based on index score (high school GPA and ACT/SAT test scores). Academic nonresident scholarships for transfer students will be determined by cumulative transfer GPA.

### **Alumni Legacy**

The Alumni Legacy Program allows children or grandchildren of non-resident Weber State alumni to pay in-state tuition. This scholarship pays the out-of- state portion of tuition and fees for students who live in on-campus housing.

## **Weber Edge**

This scholarship pays the out-of- state portion of tuition and fees for students who live in on-campus housing.

## **100-Mile Tuition Reduction**

Non-resident students living within 100 highway miles of WSU are eligible to apply for this tuition reduction. It will pay one-half of the difference between resident and nonresident tuition charges.

## **Western Undergraduate Exchange Program (WUE)**

For undergraduate students from Alaska, Arizona, California, Colorado, the Commonwealth of the Northern Marianas Islands, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Washington and Wyoming. This program offers a reduced tuition level to 150% of Weber's resident tuition.

## **International Students**

International students who have not attended another Utah System of Higher Education may apply for any non-resident scholarships. Donor specified selection criteria are the only limitations imposed upon international students for sponsor scholarship competitions.

## **Scholarship Deferment**

Scholarship deferment requests must be submitted at [weber.edu/returntoweber](http://weber.edu/returntoweber).

## **Scholarship Index Score Chart**

## **Financial Aid**

**Director:** Jed W. Spencer

**Location:** Student Services Center, Room 120

**Telephone:** 801-626-7569

**Internet Address:** [weber.edu/financialaid](http://weber.edu/financialaid)

The Financial Aid Program was established to assist students in achieving their educational goals. The following sources of financial aid are available for eligible students:

*Grants* - Funds that are considered gifts and do not have to be repaid if Satisfactory Academic Progress (SAP) is maintained.

*Student Loans* - Funds that are loaned to students and must be repaid with interest.

*Work-Study* - Employment opportunities that allow students to earn funds to help pay for school.

Each form of financial aid has different regulations. The following is only a brief summary of the financial aid process. Students desiring financial aid should contact the Financial Aid & Scholarship Office as early as possible for guidance and assistance. **The priority deadline for financial aid is April 1.**

## **General Eligibility Requirements**

- Meet the admission requirements of WSU as described in the Admissions section of this catalog. Conditional admission does not qualify for federal aid.
- Be enrolled or accepted for enrollment in a program that leads to a degree or certificate at WSU.

- Be a U.S. citizen, permanent resident, or other eligible non-citizen.
- Be registered with the Selective Service, if required.
- Be in good standing (not in default) on any student loan, federal loan or grant.
- Maintain Satisfactory Academic Progress.
- Have a correct Social Security Number.

## **Types of Financial Aid Available at WSU**

### **Grants/Gifts**

Grants are gifts that do not have to be repaid if Satisfactory Academic Progress is maintained. All grants require a minimum overall GPA of 2.00 by the end of a student's fourth semester. All grants require that the student demonstrate a financial need, as determined by the FAFSA. The types of grants available are:

*Federal Pell Grant* - Available to undergraduate students. For the 2017-2018 aid year, awards may range up to \$2,960 per semester.

*Federal SEOG* (Supplemental Educational Opportunity Grant) - Awarded to help undergraduates pay for their education after high school. Awards may range up to \$400 per semester.

### **Student Loans**

Loans are aid that **must** be repaid with interest. The types of loan programs available are:

- Federal Direct Loan
  - Subsidized Stafford
  - Unsubsidized Stafford
  - Federal Parents Loan for Undergraduate Students (PLUS)
  - Federal Graduate Plus Loan for Students in Graduate Programs
- Federal Perkins Loan (formerly National Direct Student Loan) - This loan will be phased out during the 2017-2018 aid year.

### **Employment - FWSP (Federal Work-Study Program)**

This program provides jobs for undergraduate and graduate students who meet the basic eligibility requirements for financial aid and demonstrate financial need. Jobs are available both on-campus and off-campus. The Career Placement Center (Student Services Center, Room 230) has a listing of all available jobs and, where possible, will help students with employment that relates to their course of study. Work-study earnings are not reported as income in the application for federal aid, which may make the student eligible for more grant money.

### **Application Process**

Students should first determine if they are eligible for financial aid. Refer to General Eligibility Requirements above. The priority application deadline is April 1; this does not guarantee receipt of any specific type(s) of grants. Applications received after the deadline will be processed as quickly as possible with no guarantee that the award will be ready to meet fall semester tuition and fees payment deadlines.

### **Application Steps**

The WSU FINANCIAL AID CODE IS 003680. This code will be needed to complete your FAFSA application online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). All other applications and forms are available online at [www.weber.edu](http://www.weber.edu).

1. Complete the Free Application for Federal Student Aid (FAFSA) or the Renewal Application (for continuing students) at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).
2. Complete the WSU Finaid and Scholarship Application, located in the eWeber student portal.

3. Submit additional, required documents through Financial Aid Verify, located in the eWeber student portal.

### **The Review Process**

Students are advised to apply online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Applications will go through a Federal "needs analysis." The ability of a student and the student's family to contribute, as well as other resources, will determine the need for financial assistance. Students will receive a Student Aid Report (SAR) which will provide information on the expected family contribution and financial need.

Once a student's FAFSA is sent to Weber State University, it will be reviewed in the order it was received. File reviews will not take place until students have completed their Financial Aid and Scholarship Application in their eWeber student portal. As part of the review, our office may require additional information which may include, but is not limited to, official academic transcripts, tax return transcripts, marriage documentation, citizenship documentation, and/or emancipation documentation.

Students will be notified through their Wildcat Mail of additional requirements. If a student feels that their FAFSA does not accurately reflect their situation, they should contact a Financial Aid Advisor.

When a student's file is complete, an award notice will be emailed to the student, directing them to their student portal. Students can view/accept their award(s) through the eWeber student portal, under Award Information.

*An award may be canceled if the Award Offer is not accepted within the specified time period.*

### **Satisfactory Academic Progress**

In order to receive financial aid, students must meet qualitative and quantitative academic standards.

#### **Qualitative (Academic Standing)**

In addition to the University's standards, all students who receive financial aid must maintain at least a "C" average overall GPA (2.00) by the end of their fourth semester. This includes transfer work. Students not meeting this requirement will be disqualified from financial aid until they bring their overall GPA to the minimum requirement.

#### **Quantitative (Completion Rate & Maximum Time Frame)**

Students who receive financial aid must satisfactorily complete (receive grades other than I, T, W, UW, NC, E, or AU) at least 67% of their attempted credits, on a semester-by-semester and overall basis.

Students who receive financial aid must also complete their program of study within 150% of their program length. For example, a student in a bachelor's program that requires 126 credits will need to complete their program within 189 attempted credit hours. A student in an associate's degree that requires 62 credits will need to complete their program within 94 attempted credits. A student in a certificate program that requires 30 credits will need to complete their program within 45 attempted credits.

Any exceptions to these requirements must be approved by the Financial Aid & Scholarship Petition Committee (see Petitions and Reinstatement of Aid). Only cases resulting from mitigating circumstances will be reviewed by the committee.

### **Eligibility Status**

Students who receive financial aid and complete less than the minimum number of credit hours required by their award level will be put on financial aid denial or warning.

**Please be aware that any time a student drops a class, there will be financial aid consequences.**

*Credit hours transferred from other colleges/universities will be included in the total hour eligibility for Satisfactory Academic Progress whether or not financial aid was received at the other institution(s).*

*If students change their program of study, credit hours completed for the previous major or majors will still be included in the total number of hours for financial aid eligibility even though the credit hours may or may not satisfy program requirements for the new major. If a student cannot complete their program within the maximum time frame for their program (150% of credits needed for graduation), their financial aid will be denied.*

### **Petitions & Reinstatement of Aid**

Students who are denied financial aid, but who experienced extenuating circumstances, may petition to have their denial removed. Petitions include 1) a letter from the student 2) documentation of their circumstance and 3) a graduation plan. All petitions are reviewed by the Financial Aid & Scholarship Petition Committee.

For students who do not have extenuating circumstances, or whose petition is denied, can regain financial aid eligibility by paying for their courses with other funding until they meet the completion rate and GPA Satisfactory Academic Progress requirements.

*Financial Aid eligibility cannot be regained in cases where the student has exceeded their maximum time frame.*

### **Withdrawals and Return of Title IV Funds**

Withdrawals will negatively affect your satisfactory academic progress calculation. If you completely withdraw from school, you may be required to return a portion, if not all, of the financial aid awarded for the semester.

If you are dropping some, but not all of your classes, make sure you know how this could affect your Pell Grant.

### **Return to Title IV Policy (R2T4)**

Federal regulations require your eligibility for aid to be recalculated whenever you withdraw from the university, either officially or unofficially. The recalculation determines the amount of aid you have "earned" by prorating according to the percent of the term completed before withdrawing.

After the 60% point in the semester or period of enrollment, you are considered to have earned 100% of the Title IV funds you were scheduled to receive during that period.

The Financial Aid and Scholarship Office will use the withdraw date recorded in the Registrar's Office as your official withdrawal date from the university. In the case of unofficial withdraws (i.e. dropped courses, UW grades, and/or retroactive withdrawals), your last date of attendance is reported by the instructor. When such a date can't be determined, the midpoint of the semester is used as your last date of attendance.

A repayment of aid is required when the actual amount of aid disbursed is greater than the amount earned, as determined by the recalculation. The university will return funds to the Title IV Program on your behalf when you owe an overpayment, and the university will consider the returned funds as your debt to the institution.

If the overpayment is not repaid by the end of the semester:

- A hold is placed on future registration.
- Your account is referred to the Loan Servicing Department for collection.
- You will be put on financial aid denial and will not be eligible to receive any future federal financial aid funding until the overpayment is paid in full and satisfactory progress requirements have been met.

A post-withdrawal disbursement will be made if you had eligibility for the Title IV funds (essentially earning more aid than was disbursed.) If you are entitled to a post-withdrawal disbursement:

- You will be sent an email informing you that you are entitled to additional funding.
- You must respond within 14 days of the receipt of the notification confirming the receipt of loan funds.
- You will be informed what type of funds you are eligible to receive and reminded that if the funds are loans, you are responsible for the repayment.
- If you still have outstanding institutional balances, the funds will be applied to the balance first.

A school must return Title IV funds to the programs from which you received aid during the semester as soon as possible, but no later than 45 days after the date it determines you withdrew. Funds are returned in the following order, as applicable.

1. Unsubsidized Federal Stafford loans
2. Subsidized Federal Stafford loans
3. Federal Perkins loans
4. Federal PLUS loans
5. Federal Pell Grants
6. Federal Supplemental Educational Opportunity Grants (FSEOG)

### Sample Calculations

Example 1: Withdrawal Date: February 23, 2016

You initially received \$1,979 in Direct Unsubsidized Loan and \$1,155 in Direct Subsidized Loan. You attended 44% of the term, so the repayment amount, which must be repaid immediately, is calculated to be \$1,121. Your revised award is \$858 in Direct Unsubsidized Loan and \$1,155 in Direct Subsidized Loan.

Example 2: Withdrawal Date: March 22, 2016

You initially received \$1,484 in Direct Unsubsidized Loan, \$2226 in Direct Subsidized Loan, and \$1,381 in Pell Grant. You attended 62% of the term, so no repayment is required. You are allowed to keep all the aid initially awarded.

### Student Expense Budget (Cost of Attendance)

The cost of attending Weber State University includes direct educational costs such as tuition, fees, books and supplies, as well as living costs such as room and board. Below is a table that gives an approximate budget for students attending the 2016-2017 fall and spring semesters. Students should use this only as an estimate when planning their education expenses.

#### Sample Budget: 2016-2017 Undergraduate - 2 semesters at Full Time Attendance

	<b>In-state (Utah residents)*</b>	<b>Out-of state (non-resident)*</b>
Tuition and Fees (2 semesters)	\$5,524	\$14,750
Misc. Expenses	\$3000	\$3000
Books (estimated)	\$1200	\$1200
Room & Board ** (on-campus housing)	\$8400	\$8400

*\*Based on attending full time for 2 semesters. Please note that these amounts are from last year. Graduate tuition and fees vary by program. Current tuition and fee amounts by credit hour load are published on the web at [weber.edu/bursar/TuitionFee\\_Tables.html](http://weber.edu/bursar/TuitionFee_Tables.html).*

*\*\*Room and board can vary greatly depending on whether or not students live in the dorms and what meal plan they select.*

## **Student Success Center**

**Director:** Leslie Park

**Location:** Student Services Center, Room 140

**Telephone:** 801-626-6752

**Internet Address:** weber.edu/ssc

**Email:** studentsuccess@weber.edu

The Student Success Center at Weber State University provides academic advisement for students earning an Associate of Arts or Associate of Science degree in General Studies. Academic advisors assist General Studies majors with academic planning and referrals to other campus support services. The Student Success Center is also responsible for the administration of Early College, the First Year Experience Program (FYE), the Academic Advising Referral Service, and WSU's Early Alert Referral Service (EARS).

### **Office hours at Ogden Campus** (Student Services Center, Room 140)

8:00 a.m. - 5:00 p.m. Monday - Thursday

8:00 a.m. - 4:30 p.m. Friday

*Please call 801-626-6752 for an appointment*

### **Office hours at Davis Campus** (D2, Room 241)

8:00 a.m. - 6:00 p.m. Monday - Thursday

8:00 a.m. - 5:00 p.m. Friday

*Please call 801-395-3480 for an appointment*

### **Office hours at West Center**

*Hours and days vary, please call 801-626-8975 for an appointment*

## **First Year Experience Program**

**Location:** Student Services Center, Room 140

**Telephone:** 801-626-6752

**Email:** fye@weber.edu

**Internet Address:** weber.edu/fye

The First Year Experience (FYE) Program is designed to help incoming students make a successful transition into the university community. The program assists students in making progress toward fulfilling the following educational and personal goals:

- Acquiring a sense of competence as a student and becoming successful in college.
- Mastering academic skills, such as note taking, textbook reading, test taking, writing, and time management.
- Demonstrating knowledge and use of campus resources.
- Demonstrating effective interpersonal skills with a variety of people.
- Developing a sense of belonging to the WSU community through the connections with other students, teachers, mentors and WSU employees.
- Enhancing his or her mental, physical, spiritual and social health.

### **Program Components**

To aid students in achieving these goals, the FYE Program includes the following components:

- UNIV 1105 **Foundations of College Success (3)**. This course assists incoming students in making a successful transition to college. Topics include the purpose of higher education, goal setting, time management, study and test taking skills, critical thinking, stress management, academic advisement, career and major exploration, using campus resources, and understanding student responsibilities.
- UNIV 3170 **First Year Experience Mentor Leadership Seminar (2)**  
In this seminar course, FYE Peer Mentors are taught to effectively help Foundations of College Success (UNIV 1105) students in making a successful transition to college. FYE Mentor requirements are available at [weber.edu/fye](http://weber.edu/fye). Course enrollment limited to FYE Peer Mentors. May be repeated once for 2 more credits and additionally for zero credits.

### **Program Requirements**

Any WSU student with 30 hours or fewer is welcome to participate in the program by taking UNIV 1105.

### **Program of Study (Major/Minor) Declaration**

**Contact:** Department Office for Major and Minor

All degree-seeking students must select a program of study. When students declare their program of study, they indicate their degree, major, (and minor if applicable), and catalog year. To declare or change a program of study, students should contact the department office of their chosen major and minor. To declare an associate's degree in general studies, students should contact the Student Success Center.

### **Registration**

**Associate Registrar:**

**Registration Advisor:** Sharon Dansie

**Location:** Student Services Center, Room 101

**Telephone:** 801-626-7780 or 801-626-6100

**Internet Address:** [weber.edu/registrar](http://weber.edu/registrar) (click on "registration")

**Email Address:** [registration@weber.edu](mailto:registration@weber.edu)

The University offers classes during fall, spring, and summer semesters. Students must register each semester to attend classes. Class schedule information for specific semesters is available on the WSU home page ([weber.edu](http://weber.edu)). The web-based class schedule provides information about the dates and times classes are offered for the selected semester. **See the *Academic Calendar* of this catalog for registration dates and beginning and ending dates for each semester.**

### **Registration Process - New Students**

To register for classes, new students should:

1. Complete the admissions process - new students who have applied for admission (available on-line at [weber.edu/admissions](http://weber.edu/admissions)), but have not received an acceptance notice by mail, should contact the Admissions Office at 801-626-6050.
2. Obtain a registration appointment by accessing the Internet\* see the Academic Calendar in this catalog to determine when registration begins each semester; the system will be available to provide appointments one week prior to that date.
3. Plan a course schedule - some alternate classes should be selected in case first selections are closed.
4. At the correct appointment time access the Internet.\*
5. Pay tuition and fees - log in to the eWeber student portal\* to pay tuition and fees online. Electronic statements and up-to-date balances are available in the student account at any time.

\* To log in, go to [weber.edu](http://weber.edu) and enter your Wildcat Username and password.

*A Wildcat ID and password are required before registering online in your eWeber student portal. You can sign up for a Wildcat ID online at [weber.edu/eservices](http://weber.edu/eservices). For assistance contact Computing Support at 801-626-7777.*

### **Registration Process - Continuing Students**

To register for classes, continuing students should:

1. Obtain a registration appointment by accessing the Internet\* - see the Academic Calendar to determine when registration begins each semester; the system will be available to provide appointments one week prior to that date.
2. Plan a course schedule - some alternate courses should be selected in case first selections are closed.
3. At the correct appointment time access the Internet\*.
4. Pay tuition and fees - log in to the eWeber student portal\* to pay tuition and fees online. Electronic statements and up-to-date balances are available in the student account at any time.

*\* To log in, go to [weber.edu](http://weber.edu), and enter your Wildcat Username and password.*

*A Wildcat ID and password are required before registering online in your eWeber student portal. You can sign up for a Wildcat ID online at [weber.edu/eservices](http://weber.edu/eservices). For assistance contact Computing Support at 801-626-7777.*

### **Registration Appointments**

- Registration appointments are issued to new and continuing students one week before registration begins each semester. During this week students may obtain a registration appointment by accessing the Internet at [weber.edu](http://weber.edu) and entering their Wildcat Username and password. Go to the Student Services tab and click on Registration Time.
- Registration appointments are calculated based on a student's total earned hours (hours earned with a passing letter grade and hours earned through credit by examination).

### **First Registration Phase - (Registration by Appointment)**

- During this registration phase, students may register starting on their appointed day.
- On their assigned day and appointed time, students should access the registration system on the Internet at [weber.edu](http://weber.edu) and enter their Wildcat Username and password.
- Tuition and fees may be paid by cash, check VISA, DiscoverCard, or MasterCard. Log in to the eWeber student portal to pay tuition and fees online. Electronic statements and up-to-date balances are available in the student account at any time. A paper billing statement will be mailed at the student's request by sending an email to [cashiers@weber.edu](mailto:cashiers@weber.edu).
- Refer to Bursar's Office to obtain information about payment deadlines and tuition and fee amounts. It is the student's responsibility to understand the registration, payment, withdrawal, and refund schedule and to make sure account balances are paid in-full and on-time to avoid late fees or other charges.

### **Second Registration Phase - (Open Registration)**

*Once appointment registration is complete, "open registration" continues and all students are allowed access to register and/or make changes to their class schedules on a first-come-first-served basis.*

- During the second phase of registration, all students may register or make changes by accessing the registration system on the Internet at [weber.edu](http://weber.edu) and entering their Wildcat Username and password.
- Tuition and fees may be paid by cash, check VISA, DiscoverCard, or MasterCard. Log in to the eWeber student portal to pay tuition and fees online. Electronic statements and up-to-date balances are available in the student account at any time. A paper billing statement will be mailed at the student's request by sending an email to [cashiers@weber.edu](mailto:cashiers@weber.edu).
- Refer to the [Bursar's Office](#) to obtain information about payment deadlines and tuition and fee amounts. It is the student's responsibility to understand the registration, payment, withdrawal, and refund schedule and to make sure account balances are paid in-full and on-time to avoid late fees or other charges.

## **Changes in Registration**

- Students may add classes online or at the registration windows (Registrar's Solution Center at the Ogden campus, Davis campus, West center and Morgan center) through the 5th business day of the semester or block. Instructor approval will be required to add a class beginning on the 6th business day of the semester or block.
- Students may drop classes online or at the registration windows (Registrar's Solution Center) through the deadline dates (see the Academic Calendar online). There are different deadlines for refunds and grading when withdrawing from classes.
- Students are strongly encouraged to plan their class schedules in consultation with an advisor to avoid unnecessary changes and ensure efficient progress toward completion of degree requirements.
- Students receiving financial aid should be careful not to reduce their credit hour load below the minimum number of hours required by their award level.

## **Closed Classes**

- Only academic departments and instructors have the authority to admit students to closed classes.
- Students may contact the individual department and/or the instructor for specific procedures regarding admission to closed classes.

## **Credit/No Credit (CR/NC) Registration**

*The basic objective of credit/no credit grading is to allow students the opportunity to enroll in classes outside their major or minor on a pass (CR)/ fail (NC) basis without affecting their GPA. The following rules apply:*

- Freshmen students may take no more than one class per term on a credit/no credit basis.
- Students with 30 or more credit hours who have a cumulative GPA of 2.0 or above may register for no more than two classes per term on credit/no credit basis.
- A maximum of 20 hours of credit/no credit in elective courses may be used for graduation.
- Classes taken on a credit/no credit basis will not satisfy major, minor, general education, or specific course requirements. The University Curriculum and General Education Committee have designated a few exceptions to this rule. Please see the academic department for information on these course exceptions.
- Grades on the credit/no credit system are not included in computing the term or cumulative grade point average. A grade of credit is recorded only for letter grades of C- and above. Grades less than C-, including UW, will be recorded as no credit.
- Students who change their Program of Study must submit the appropriate form to the Records Office and request the grade be changed to the letter grade issued by the instructor if a credit/no credit course applies to the new Program of Study.
- If a student has previously taken a course for a letter grade, the same course may not be retaken for credit/no-credit.
- Choice of credit/no credit registration should be made at the beginning of the term, but a student may change classes to credit/no credit status until the CR/NC deadline. This date can be found in the University's Academic Calendar.
- The instructor is not notified when a student takes a class for a credit/no credit grade. The instructor will assign a letter grade on the Final Grade Report and then the Records Office will convert the letter grades to credit or no credit.

## **Audit Course Registration**

*The basic objective of taking a class as audit is to allow students the opportunity to attend a class without earning either a grade or credit for the class.*

- Students registering to audit a class will pay tuition and fees per the current tuition and fee schedule.
- Students in regulated programs, i.e. Financial Aid and Athletics, are subject to the respective program guidelines for audit registration.

- Some courses may not be open to audit students because of classroom space limitations. Students must receive instructor permission to audit a class.
- Choice of audit registration should be made at the beginning of the term, but a student may change classes to audit status until the audit deadline. This date can be found in the University's Academic Calendar.
- Students auditing classes are expected to attend on a regular basis. Students may officially withdraw from the audited class according to the deadline. Audit students failing to attend class may be issued a "W" grade at the discretion of the instructor.
- Senior Citizens (Utah residents ages 62 and over) may audit a course as a Lifetime Learner for a \$10.00 fee per semester, on a space available basis, by applying at the Admissions Office. Lifetime Learner's selecting this option for courses do not have the option to receive a letter grade nor credit on their transcript for these courses.

### **Registration Credit Hour Loads**

- It is recommended that undergraduate students planning to graduate with a bachelor's degree in four years register for at least 15 credit hours per semester.
- Undergraduate students are classified as full-time if they register for 12 or more credit hours, as three-quarter time with 9 credit hours, and as half-time with 6 credit hours.
- Graduate students are classified as full-time if they register for 9 or more credit hours, and as half-time if they register for 5 or more credit hours.

### **Overload Registration**

- Students may register for a maximum of 20 credit hours without special permission.
- Students with a cumulative GPA of 3.50 or better may petition for a maximum of 24 credit hours, and students with a cumulative GPA of 3.75 or better may petition for additional credit hours. Petition forms are available from academic departments or the Registrar's Solution Center.

### **Withdrawal**

- Students can withdraw from individual classes online according to the deadlines on the Academic Calendar.
- Students who want to completely withdraw from the semester or block may do so online according to the deadlines on the Academic Calendar. Students who need help may come in-person with picture ID to the Registrar's Solution Center, SC 101, or the Davis Campus, D2 246, or may send an email request to [registration@weber.edu](mailto:registration@weber.edu) from their Weber email account ending in @mail.weber.edu, or send a signed written request via fax (801-626-6679) or mail (1102 University Circle, Ogden, UT 84408). Requests should always include the student name, W#, and a clear statement explaining the request.

*Go to the Cashier's Office page online ([www.weber.edu/bursar/RefundDates](http://www.weber.edu/bursar/RefundDates)) and check the Refund Policy and Deadlines before making a decision to drop classes. You will be accountable to the refund schedule for any tuition and fee costs associated with the time you spent registered for your classes.*

- From the 16th to 50th business day of a semester, or 16th to 30th business day of a block, students may withdraw from classes online or by submitting a completed "Withdrawal from Class" form to the Registrar's Solution Center. Courses dropped during this period will appear on the transcript with a "W" notation.

### **State Authorization**

Weber State University is registered as a Private Institution with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

## **Class Standing**

New Freshmen	Students with 0 earned credit hours
Advanced Freshmen	Students with 1-29 credit hours
Sophomores	Students with 30-59 credit hours
Juniors	Students with 60-89 credit hours
Seniors	Students with 90 credit hours or more
Graduates	Students who have previously received a bachelor's degree

## **Course Numbering System**

0001-0999 Non-credit, Developmental (ND) (do not satisfy degree requirements and are non-transferable)

1000-2999 Lower division

3000-4999 Upper division

5000-5999 Post-baccalaureate

6000-6999 Graduate (Master's Degree)

*Individual course descriptions are listed within each departmental section.*

## **Davis Campus and Additional Locations**

In addition to classes taught on the main campus, course work is also available at several off-campus locations including:

WSU Davis Campus, 2750 University Park Blvd, Layton

WSU Morgan Center, 241 E. Young St., Morgan

WSU West Center, 5627 S. 3500 W., Roy

Clearfield High School, 938 S. 1000 E., Clearfield

Davis Area Technical College, 550 E. 300 S., Kaysville

Kaysville Center at Davis High School, 325 South Main, Kaysville

Roy High, 2150 W. 4800 S., Roy

Salt Lake Community College, 4600 Redwood Rd., Salt Lake City

## **Tuition, Fees and Refunds**

**Bursar:** Michael Richter

**Location:** Miller Administration, Room 204

**Cashiers' Office:** Student Services Center, second floor (SC 209)

**Telephone:** 801-626-8006

**Internet Address:** [weber.edu/bursar](http://weber.edu/bursar)

**Email:** [cashiers@weber.edu](mailto:cashiers@weber.edu)

### **Tuition and Fees**

Weber State University reserves the right to assess tuition and fees as approved by the Board of Regents. Current policies, procedures, tuition and fee tables, payment deadlines, refund schedules and other important information are available at [weber.edu/bursar](http://weber.edu/bursar) (click on the link for Tuition and Fee Tables).

- Tuition is established by the Utah State Board of Regents and is subject to change without notice.
- Full-time students (12-18 credit hours) are assessed full tuition.
- Part-time students (less than 12 credit hours) are assessed tuition on a per credit hour basis.
- Students that enroll in more than 18 hours will be assessed tuition on a per credit hour basis for the additional hours.

*Please also see Surcharge.*

### **Tuition and Fee Schedule**

Tuition and fees are established each year in late spring. Current tuition and fees will be posted on the Internet at [weber.edu/bursar/TuitionFee\\_Tables.html](http://weber.edu/bursar/TuitionFee_Tables.html).

### **HB248 Tuition Disclosure 2012-2013**

Full-time undergraduate resident students at Weber State University paying a semester of tuition and fees amount of \$2,384 contribute an estimated 59% of the full cost of instruction of \$4,041. The remaining support of \$1,657 is provided by state tax funds.

### **Tuition and Fee Assessment**

Weber State University does not drop courses for non-payment or non-attendance. Students are responsible for dropping courses they do not plan to attend. Tuition and fees will not be waived for nonattendance. Once registered, each student is obligated to pay for their courses unless the student has dropped courses or the student completes a total withdraw from school during the 100% refund period. If a student drops or completely withdraws from school after the 100% refund period, the student is obligated to pay tuition and fees according to the current semester refund schedule. Also, a student must pay for or drop courses by the payment deadline to avoid late fees and interest. (See Withdrawal for further information.)

### **Tuition and Fees for Online and Independent Study Courses**

Refer to [wsuonline.weber.edu/students/costs.asp](http://wsuonline.weber.edu/students/costs.asp) for tuition and fee information for WSU Online and Independent Study courses, or call 1-800-848-7770 and choose "Online & Independent Study Student Services" from the phone menu.

### **Course (Lab) Fees**

Some courses require additional fees for materials and/or resources.

## Rentals and Deposits

Rentals and/or deposits are required on certain items and are paid to the Cashier. Any applicable refunds must be obtained from the Cashier prior to June 30.

## Surcharge

In 2003 the Utah State Board of Regents passed a policy designed to encourage students to make reasonable progress toward completion of degree requirements. The policy states that students who exceed 135% of the credits required for completion of their baccalaureate degree will be charged the full cost of instruction. For example, a student whose program of study requires 126 semester credit hours will be allowed a maximum of 170 semester hours in which to complete degree requirements ( $126 \text{ credits} \times 1.35 = 170 \text{ credit hours}$ ). Any work beyond the allowed 135% will be charged at the full cost of instruction.

Credit hours that do not count toward the 170 hours are concurrent enrollment, advanced placement, and credit by examination. Individuals are also exempt from the surcharge if:

- the credits are necessary for the student to complete the student's program of study; and the excess credits are a result of circumstances where a substantial number of credits from a transferring institution could not be applied to the program of study;
- the excess credits are a result of a reasonable enhancement of the student's major by the addition of a minor or emphasis to the program of study; or
- the excess credits are the result of a re-entry into the educational system by a student who may have accumulated a large number of credits, or even completed degrees, but where employment requirements obligate his or her return to college.

*More information is available by contacting the Cashier's Office at 801-626-8006 (SC 209).*

## Agreement to Pay Tuition Charges

When a student registers for courses at Weber State University the student agrees to the terms of the "Agreement to Pay Tuition Charges." The agreement states:

*In consideration of the University's allowing me to register for courses, thus incurring the attendant costs to the University, both direct and indirect, I promise to pay Weber State University (WSU), Ogden, Utah, tuition and fees (principal) assessed to me for courses for which I have registered by the published payment due date for each semester. Also, I agree to pay for any additional fees and interest charges that are assessed to my account each semester. I hereby agree to pay a late payment fee of \$40 if my account balance is not paid by the published payment due date, together with interest at the rate of 12% per annum on the unpaid balance. In the event I default on this agreement and it becomes necessary to place this account for collection, I also agree to pay collection fees, not to exceed 50.00% of the original principal balance, plus any court and/or attorney fees resulting from the enforcement of this agreement. Any collection costs stated above are in addition to the principal, fees and interest due on my account. In the event of default of any of the terms of this agreement, I hereby give to the WSU Controller, or his/her designee, Power of Attorney to apply all monies due me from WSU to any delinquent portion of this note until the principal, fees, interest and costs are paid in full. I agree that WSU may repay my account balance from any TITLE IV funds due me. I understand that the principal amount is calculated based on my class-load each semester at WSU. All outstanding tuition account balances are considered qualified educational loans under I.R.C § 221 and are extended with the express understanding that future repayment shall be made to the university. I further understand that my acceptance of these terms represents my acknowledgement and acceptance of my tuition account balance qualifying as a qualified education loan under I.R.C. § 221, and as such, is exempt from discharge under federal bankruptcy code 11 U.S.C. § 523(a)(8).*

## Billing Statement

Tuition and fees statements are available on the eWeber student portal. Electronic statements and up-to-date balances are available in the student account at any time. Students are responsible for viewing up-to-date balance or e-statements in the student account. It is the student's responsibility to make sure account balances are paid in-full and on-time. A paper billing statement will only be mailed at the student's request by sending an email to [cashiers@weber.edu](mailto:cashiers@weber.edu).

## **Payment Schedule**

- Payment deadlines are listed on the Internet at [weber.edu/bursar](http://weber.edu/bursar).
- Tuition and fees may be paid by cash, check VISA, DiscoverCard, MasterCard or American Express.
- Monthly payment plans are available to help students who are not able to pay in full when tuition is due. (See Monthly Payment Plan Option below.)

## **Late Payment Fee**

A late payment fee will be assessed to all students who have not paid their tuition and fees in-full or have not signed up for a monthly payment plan (see [weber.edu/bursar/Late\\_fees.html](http://weber.edu/bursar/Late_fees.html) for the amount and schedule for assessment of the fee.) If a student has an outstanding balance after their financial aid or scholarships have been applied, the student is responsible to pay this amount by the payment deadline to avoid the late payment fee and interest charges. The late payment fee and interest are nonrefundable and will not be waived.

If a student changes his/her schedule by adding classes, the student has until Friday at 4:00 p.m. of that week to pay the balance or the late payment fee will be assessed to the student account. Students should check their account balance each time a change is made to his/her schedule to determine the new balance due.

## **Interest Assessment**

Interest will begin the fourth week of the semester. The annual rate is 12%. A student will not be assessed interest as long as the student is in a Monthly Payment Plan that covers all tuition and fees and current on all payments. Interest on unpaid balances will be assessed in addition to the late payment fee.

## **Monthly Payment Plan Option**

The Monthly Payment Plan is a program intended to help students who are not able to pay their account in full by the tuition and fee deadline. Instead of one large payment, tuition and fees are broken down into equal monthly payments. Enrollment in a plan is available at the time of registration prior to beginning of each semester. See [weber.edu/bursar](http://weber.edu/bursar) for details about monthly payment plans.

## **Personal Checks or eChecks**

Personal checks or eChecks returned by a financial institution for any reason are subject to a service charge and may result in the withholding of student records and/or dropping of courses.

## **Delinquent Accounts-Collection Fees**

Students with unpaid tuition and fees, room and board, parking fines, or other fees due to the University will have a hold placed on their records until such obligations are paid in full. The hold will prevent the student from registering for future semesters, viewing transcripts or grades, delay graduation, and limit use of the Wildcard and certain student services.

Unpaid accounts will be processed by University collections. A collection fee of ten percent of the outstanding balance will be assessed to the student. Interest and monthly collection fees will also be assessed on any unpaid balance. In the event additional collection efforts become necessary, WSU may refer a past due account to an outside collection agency. All delinquent accounts are subject to collection fees, interest, plus all court costs and reasonable attorney fees. The collection agency and/or WSU will report delinquent accounts to a credit reporting agency.

## **Third Party/Sponsored Payments**

Students are responsible for ensuring that appropriate documentation for third party/sponsored payments is submitted to the main cashier's office prior to the start of classes each semester. Students must comply with the terms of the agreement and verify that all tuition and fees changes are paid by the sponsor agreement. It is the student's responsibility to verify that any course or tuition and fee changes will be paid by the sponsor and that these changes are reported to the

accounts receivable office for proper processing. If the sponsor does not provide funding by the end of the semester, the student will be responsible for payment of tuition and fees. The account will be considered delinquent if unpaid at the end of the semester. (See Delinquent Accounts above.) Contact 801-626-6263 for information on how to submit vouchers or contracts.

### **Administrative Withdrawals**

The University reserves the right to administratively withdraw a student from a current semester if a student has an unpaid tuition and fee balance from a prior semester or if the student provides a dishonored check or other payment to pay for tuition and fees. The prior semester courses will not be dropped or withdrawn.

### **Financial Petitions**

Tuition and fee assessment is based on the registration date of the course and date of withdrawal from the course. The withdrawal dates are published on the Academic Calendar each semester. If, due to extenuating or for other acceptable circumstances, the student must drop a course after the published deadline, the student must complete the "Exception to University Policy-Tuition and Fee Assessment Petition" [weber.edu/bursar/Petition.html](http://weber.edu/bursar/Petition.html) and submit supporting documentation.

Tuition and fees are assessed according to approved tuition and fee tables. The assessment is based on the number of registered credit hours or liable hours for each student. For example, if the student signs up for 12 credit hours, he or she is liable for paying for 12 hours according to the tuition and fee table.

### **Deadlines for Filing Petition**

The deadline for filing a petition is the last day of the semester of enrollment. The burden of proof rests with the student to submit documentation of circumstances that prevented the student from adhering to the University policies and procedures. For more information and forms refer to: [weber.edu/bursar/Petition.html](http://weber.edu/bursar/Petition.html)

### **Refunds and Reimbursements**

Student fees and course fees are refunded based on the University refund schedule (see [weber.edu/bursar](http://weber.edu/bursar)). Late fees and withdrawal fees are nonrefundable. In most cases, if a credit card is used to pay for tuition and fees, refunds and residual funds will be credited to the credit card. Students may opt to have any refund sent electronically to a bank account of their choice by setting up a refund profile at [weber.edu/bursar/erefunds.html](http://weber.edu/bursar/erefunds.html). All other refunds will be mailed to the student. Admission fees and recording fees are nonrefundable.

Refunds for dropped courses will be processed after the third week of class.

### **Financial Aid Withdrawals and Return of Title IV Funds**

See Withdrawals and Return of Title IV Funds in the Financial Aid section.

## Student Affairs, Services and Information

The Division of Student Affairs includes a variety of services ranging from those that directly supplement classroom learning to those which are aimed at helping students attain a holistic education and a healthy lifestyle. The goal of Student Affairs is a commitment to solving student problems and helping students become aware of services, activities and programs available to them. The staff in Student Affairs will assist in designing, developing, implementing and evaluating programs to expand the students' personal development and enrich co-curricular opportunities.

### **Campus Services**

#### **Bookstore**

**Telephone:** 801-626-6352

**Location:** Shepherd Union Building and Davis Campus

**Website:** [bookstore.weber.edu](http://bookstore.weber.edu)

- Textbooks
- Computer Sales and Service
- School and Office Supplies
- Vocational Art & Engineering Supplies
- General Books & Gifts

#### **Computing Support Services**

**Location:** Technical Education (TE) 209

**Telephone:** 801-626-7777

#### **Wildcat and Email Account**

All Weber State University students are provided a Wildcat account that includes email. Many professors communicate with their students by email, so it is important for students to activate their accounts early on. Students must also activate their Wildcat account prior to online registration. This can be done via the Computing Support Services Website at [weber.edu/eservices](http://weber.edu/eservices) (visit any student computer lab to access the Internet).

#### **Student ID (Wildcard)**

**Telephone:** 801-626-6367

**Location:** Shepherd Union Lobby Information Center

**Hours:** Mon - Fri 7:30 a.m. - 8:30 p.m., Sat - 8:30 a.m. - 5:30 p.m. (Hours may vary during breaks and summer)

You need a Wildcard because it:

- is your library card
- allows you use of the physical education and campus recreation facilities
- gives you free admittance into athletic events and discounts to select club events
- is used for dining options
- allows you to print in the computer labs
- gives you access to campus health facilities
- is your I.D. to be used at the testing center and to get transcripts printed

The Wildcard is available for students and their dependents and spouse. There is a \$10.00 fee for each new card. Dependents and spouses of students also pay an additional activation fee per semester. There is a \$20.00 fee for all replacements, lost or stolen Wildcards. See [weber.edu/wildcard](http://weber.edu/wildcard) for more information.

## **Parking Services**

**Telephone:** 801-626-6533

**Location:** Public Safety Building

**Hours:** Monday through Friday, 7:00 a.m. to 4:30 p.m.

Parking Services is responsible for issuing parking permits and regulating traffic, parking, and related campus matters. See [weber.edu/parking](http://weber.edu/parking) for more information.

## **Academic Support Services**

### **Academic Support Centers & Programs**

**Main Telephone:** 801-626-6870

**Website:** [weber.edu/ascp](http://weber.edu/ascp)

Academic Support Centers and Programs (ASCP) offers an array of services designed to meet the individual needs of WSU students. These services include tutoring, testing centers, computer labs, and international academic support programs.

### **Tutoring Services**

**Website:** [weber.edu/tutoring](http://weber.edu/tutoring)

Academic Support Centers and Programs (ASCP) offers an array of peer tutoring services designed to meet the individual needs of WSU students. Tutoring focus is on developmental and general education courses. The program is certified by the National Association for Developmental Education (NADE) and includes peer tutors certified through the College Reading and Learning Association (CRLA). ASCP strives to assist WSU students reach their academic goals by helping them become strong, independent learners.

### **Supplemental Instruction**

**Ogden Campus - Telephone:** 801-626-6804

**Location:** Tracy Hall, Suite 101

**Davis Campus Telephone:** 801-395-3539

**Location:** Bldg. D2, Room 215

**Website:** [weber.edu/si](http://weber.edu/si)

Supplemental Instruction (SI) provides opportunities for students to participate in learning teams where they explore concepts and solve problems through group discussion and interaction as directed by a student team leader who has successfully completed the course. SI student leaders work in collaboration with the course professor and SI coordinator.

### **Student Support Services**

**Telephone:** 801-626-7009

**Location:** Student Services, Suite 260

**Website:** [weber.edu/ssss](http://weber.edu/ssss)

Student Support Services (SSS) provides opportunities for academic development, assists students with basic college requirements, and motivates students toward completion of their college degree. The goal of SSS is to increase college retention and graduation rates of its participants and to help students make the transition from one level of higher education to the next. The program is only open to students who have been admitted to, or are enrolled at, Weber State University, and are low-income, first generation college students, or have a documented disability.

## **Computer Labs**

**Telephone:** 801-626-7018

**Website:** [weber.edu/computerlabs](http://weber.edu/computerlabs)

**Website:** [weber.edu/sat](http://weber.edu/sat)

Student Affairs Technology manages WSU's ten open student computer labs. These computer labs are meant to serve the general needs of all enrolled WSU students. Lab hours vary from lab to lab, but overall lab hours range from 7:00 a.m. to midnight and some labs are open seven days a week.

### **Locations:**

*Hours and software may vary in each location and semester. Please check Websites above for current information.*

DAVIS CAMPUS - D2 205

DAVIS LAPTOP LOUNGE - D3 LOBBY

DUMKE COLLEGE OF HEALTH PROFESSIONS - MH 111

ELIZABETH HALL - EH 214

SHEPHERD UNION COMPUTER LAB - UB 230

SOCIAL SCIENCE - SL 228

TRACY HALL LEARNING CENTER - TY 101R & 101E

UNIVERSITY VILLAGE - CC 310

WATTIS - WB 118

WEST CENTER (ROY) - WW LOBBY & 109

## **Testing Centers**

**Telephone:** 801-626-6803

**Website:** [weber.edu/testingcenter](http://weber.edu/testingcenter)

The testing center offers a variety of standardized tests for the purpose of placement into appropriate courses, and admission to academic programs. Tests are also administered for various academic departments on campus and for Independent Study courses.

### **Locations:**

Student Services, Room 262 Library, Room 110

Tracy Hall, Room 101C      Davis Campus, D3 Room 231

Shepherd Union, Room 323 West Center, Roy, Room 114

Morgan Testing Center

## **Career Services**

**Telephone:** 801-626-6393

**Location:** Student Services, Suite 230

**Website:** [weber.edu/careerservices](http://weber.edu/careerservices)

Career Services provides Career Counseling and Employment Advising to individuals and groups through interest, personality and ability assessments. A career development class is offered to students in a traditional classroom setting and on-line. Help is provided with resume and interview preparation and networking strategies. The Career Center introduces students to employers through Career and Job Fairs and through employer information sessions during the year. Students can find part-time jobs on campus and full and part-time jobs off campus through Career Connect Career Services works with employers to develop internships and jobs through employer outreach efforts. Counselors provide

students with graduate school information and a Graduate School Fair is held annually. Career Services is a key contributor to the next step success of Weber State Students.

## **Student Wellness Services**

### **Student Wellness Program**

**Telephone:** 801-626-7561

**Location:** WI Rm 210A, Wildcat Center for Health, Education and Wellness

**Website:** [weber.edu/studentwellness](http://weber.edu/studentwellness)

The Student Wellness program (located in the Wildcat Center, Room 210) provides evidence-based Health Education programming, services and resources to address eight interconnected dimensions of wellness: intellectual, social, spiritual, physical, emotional, environmental, financial and occupational. The program helps students develop healthy habits in all dimensions to facilitate their full engagement in the classroom, in their personal lives, and in their future careers. Individual consultations with a Certified Health Education Specialist are also available for assistance with most health and wellness concerns.

### **Student Health Services**

**Telephone:** 801-626-6459

**Location:** Student Services, Suite 190

**Website:** [weber.edu/healthcenter](http://weber.edu/healthcenter)

The Student Health Center (located in the Student Service Center, Room 190) provides quality, cost-effective health services to students with a current Wildcard. Funding is provided through student fees and most services are available at no cost or low cost. Available services include outpatient medical care for common illnesses, health conditions, and injuries; some immunizations; women's health care/contraception needs; and physical examinations. Some X-ray services and a small pharmacy are also available at the WSU-Ogden Student Health Center. Limited services are available at the WSU-Davis Student Health Center (located in building D2, Room 220)

### **Counseling & Psychological Services Center**

**Telephone:** 801-626-6406

**Location:** Student Services, Suite 280

**Website:** [weber.edu/counselingcenter](http://weber.edu/counselingcenter)

The Counseling and Psychological Services Center (located in the Student Service Center, Room 280) provides high-quality, culturally-sensitive, professional psychotherapy for students struggling with anxiety, depression, relationship problems, stress, grief, or other concerns. The center offers individual, couples, family, and group counseling, crisis intervention, psychiatric care, and outreach activities that help students overcome emotional barriers, improve coping, and achieve personal goals.

## **Services for Special Student Populations**

### **Office of Access & Diversity**

**Telephone:** 801-626-7006

**Location:** Student Services, Room 150

**Website:** [weber.edu/accessanddiversity](http://weber.edu/accessanddiversity)

The Office of Access & Diversity is a department that includes college access and outreach programs as well as student retention programs and initiatives that focus on increasing college participation for underrepresented students to pursue

and successfully complete a post-secondary education and meets the mutual needs of the university, public school system and community. This office provides services in approximately 15 secondary junior high schools within Ogden, Weber and Davis school districts, as well as in their local communities.

### **STATE GEAR UP COLLEGE ACCESS PROGRAM**

*Brandon Flores, GEAR Up Director*

**Telephone:** 801-395-3547

**Location:** Davis Campus, D3, Suite 308

**Website:** [weber.edu/stategearup](http://weber.edu/stategearup)

GEAR UP (Gaining Early Awareness & Readiness for Undergraduate Programs) provides college readiness support for targeted students in the Weber and Davis school districts. First Year services are also provided for GEAR UP students pursuing post-secondary education. The GEAR UP program includes the following services:

- Financial Aid/Scholarship Advising
- FAFSA Completion
- ACT Preparation
- Academic Enrichment
- Campus Visits
- Family Outreach

### **Center for Multicultural Excellence**

**Telephone:** 801-626-7330

**Location:** Student Services, Suite 150

**Website:** [weber.edu/multicultural](http://weber.edu/multicultural)

The Center for Multicultural Excellence (CME) empowers students from diverse backgrounds to help them engage, navigate, and connect with campus and community resources through retention specialists and a Peer Mentor Program. Our focus is to develop the knowledge, skills, and abilities needed to fulfill student career and graduation goals. Our study lounge with computers and free printing is available to all students. The Peer Mentor Program is located in the Shepherd Union, Room 232D.

### **College Access and First-Year Transition**

**Telephone:** 801-626-7006

**Location:** Student Services, Room 150

**Website:** [weber.edu/access](http://weber.edu/access)

The unit focuses on creating a pathway for underrepresented students to go to college in collaboration with local secondary schools. Student 2 Student is an outreach program with college advocates and outreach tutors that provide college-readiness and access opportunities for under-represented youth through mentorship, advocacy, on-campus activities and college enrollment assistance. Historically underrepresented first-year WSU students (first generation, ethnic minority, low-income) can connect and find support for a successful transition from high school to their first year of college. Students get assistance completing enrollment, gain a sense of belonging, network with their peers, become engaged learners, and make connections to campus resources and information. Support and resources are also available for undocumented students and families. These services are focused on increasing underrepresented, student enrollment, retention and graduation.

## **Educational Talent Search (TRIO Program)**

**Telephone:** 801-626-7369

**Location:** Student Services, Room 150

**Website:** [weber.edu/talentsearch](http://weber.edu/talentsearch)

The Talent Search program identifies and assists individuals from disadvantaged backgrounds who have the potential to succeed in higher education. The program provides academic, career, and financial counseling to its participants and encourages them to graduate from high school and continue on to and complete their postsecondary education. The program publicizes the availability of financial aid and assist participant with the postsecondary application process. Talent Search also encourages persons who have not completed education programs at the secondary or postsecondary level to enter or reenter and complete postsecondary education. The goal of Talent Search is to increase the number of youth from disadvantaged backgrounds who complete high school and enroll in and complete their postsecondary education.

Services include:

- Academic advising
- Career and college planning
- Admission application assistance
- Financial aid/scholarship assistance
- College entrance examination preparation
- Referrals to community resources
- Referrals to tutoring/mentoring programs
- Field trips to colleges and cultural programs
- College resources/workshops for parents and families

## **Upward Bound (TRIO Program)**

**Telephone:** 801-626-6798

**Location:** Annex 3

**Website:** [weber.edu/upwardbound](http://weber.edu/upwardbound)

The Upward Bound program is a federal project that assists low-income, first generation students throughout high school in becoming academically prepared and mentally ready for entrance into post-secondary education with the goal of obtaining a Baccalaureate, or higher, degree.

Services include but are not limited to:

- Academic Advising and Counseling in preparation for college entrance
- Academic tutoring both individually and in group sessions
- College and University life skills and academic skills training
- Career Exploration
- Financial Aid, FAFSA, and Scholarship workshops and assistance
- Life Enrichment Activities
- College Tours
- Weekly College Preparation Sessions
- Six Week Residential Campus Program

## **International Student & Scholar Center**

**Telephone:** 801-626-6853

**Fax:** 801-626-7693

**Location:** Student Services, Suite 143

**Website:** [weber.edu/issc](http://weber.edu/issc)

The International Student and Scholar Center advises and assists international students with their personal, cultural, and academic adjustment to WSU, and is responsible for the recruitment, admission, and retention of international students. An orientation program is provided for all new international students each semester. Advisement is available to assist students concerning immigration related questions and concerns. The ISSC assists students with the following:

- International Student Admissions
- Student Advocacy and Adjustment
- Student Clubs
- International Events
- International Exchange Programs
- Consultation & Outreach

### **Nontraditional Student Center**

**Telephone:** 801-626-7794

**Location:** Shepherd Union Building, Room 322 and Davis Campus, D2, 307

**Website:** [weber.edu/nontrad](http://weber.edu/nontrad)

The Nontraditional Student Center (located in Shepherd Union, Room 322 and at Davis Campus, D2, 307) has a lounge, kitchen, computer lab, study area, and hourly childcare center (Ogden Campus only) to help meet the needs of students who are over 25, and/or married, divorced, widowed or a parent. Advisor and Peer mentors are available to help students navigate the campus and provide support to students academically and personally. The center strives to provide a supportive environment and remove barriers students may face while balancing school, family, home and work. The center offers scholarships and leadership opportunities.

### **Hourly Childcare Center**

**Telephone:** 801-626-7798

**Location:** Shepherd Union Building, Room 322 E

**Website:** [weber.edu/nontrad](http://weber.edu/nontrad)

The Hourly Childcare Center (located in Shepherd Union, Room 322 E, inside the Nontraditional Student Center) is designed to provide flexible, hourly, or back-up care for the children of WSU students. Back-up care is based on availability. Children ages two to nine years old may attend. A child may be at the center while parents are attending classes, using the computer lab, studying, or using other campus resources. There is a \$15 application fee (one-time, nonrefundable). Applications are accepted on an on-going basis. The hourly rate is \$3.50/ hour.

### **Disability Services**

**Ogden Telephone:** 801-626-6413

**Davis Telephone:** 801-395-3524

**Video Phone:** 866-682-8207

**Ogden Location:** Student Services, Suite 181

**Davis Location:** Bldg D2, Room 256

**Website:** [weber.edu/ssd](http://weber.edu/ssd)

**Email:** [ssd@weber.edu](mailto:ssd@weber.edu)

Students requesting accommodations due to disability should be referred to Disability Services. Based upon documentation of the disability, DS will authorize appropriate accommodations and SSD work closely with faculty and staff to ensure that any given accommodation is appropriate and necessary for the situation. Some examples of accommodations include the following: classroom interpreting for deaf students, alternative-format textbooks, Braille and large print materials for handouts and syllabi, test accommodations, adaptive technology, registration assistance and advisement. DS advises students on issues related to disabilities and higher education and provides priority registration for qualified students.

## **Veterans Services**

**Telephone:** 801-626-6039/6042

**Location:** Annex 5, main floor

**Website:** [weber.edu/vetaffairs](http://weber.edu/vetaffairs)

Veterans Services (located in Annex 5, main floor) is the liaison between Weber State University and the U.S. Department of Veterans Affairs for educational benefits for veterans and dependents who are eligible for the G.I. Bill. In addition, Veterans Services provides a variety of support services to assist in making education a successful experience for veterans. The center also helps veterans and their dependents identify sources of support for their educational needs.

## **Veterans Upward Bound**

**Telephone:** 801-626-7173

**Location:** Annex 12

**Website:** [weber.edu/vetsupwardbound](http://weber.edu/vetsupwardbound)

Veterans Upward Bound (located in Annex 12) is designed to motivate and assist veterans in the development of academic and other requisite skills necessary for acceptance and success in a program of postsecondary education. The program provides assessment and enhancement of basic skills through counseling, mentoring, tutoring and academic instruction in the core subject areas. Veterans Upward Bound provides instruction in mathematics, English, science, foreign language, composition and literature and computer use. The project also assists veterans in securing support services from other locally available resources such as the Veterans Administration, state veterans agencies, veteran associations, and other state and local agencies that serve veterans. Other services include: Education or counseling services designed to improve the financial and economic literacy of participants; Instruction in reading, writing, study skills, and other subjects necessary for success in education beyond high school; Academic, financial counseling; Tutorial services; Information on postsecondary education opportunities; Assistance in completing college entrance and financial aid applications; Assistance in preparing for college entrance exams; Information on the full range of Federal Student financial aid programs and benefits.

## **Women's Center**

**Telephone:** 801-626-6090

**Location:** SUB 322

**Website:** [weber.edu/womenscenter](http://weber.edu/womenscenter)

The Women's Center programs and services are aimed at strengthening and improving the lives of WSU women, children, and their communities through empowering, advocating, educating, and increasing pathways to resources and leadership opportunities on campus and within the larger Weber and Davis communities. The Center offers practicum/intern and work-study opportunities, volunteer opportunities, individual consultation and advisement, scholarships, support networks, and referrals to campus and community resources. Contact us via phone (801-626-6090) or email ([womenscenter@weber.edu](mailto:womenscenter@weber.edu)) to schedule a Women's Center social justice presentation for your class, club, or WSU community.

The Safe@Weber Sexual and Relationship Violence Prevention and Advocacy Program supports a campus-wide response to issues of violence. It focuses on the prevention of violence by educating students on sexual assault, relationship violence, and stalking, and eliminating violence on campus. Safe@Weber provides free services and support to those affected by sexual and relationship violence, and stalking. Core services include safety planning, investigation advocacy, and supporting survivors in establishing educational accommodations. Leadership opportunities through Safe@Weber include the Safe@Weber Ambassador program, the Peer Educator Leaders program, internships and practicums. Contact us via phone (801-626-6090) or email ([womenscenter@weber.edu](mailto:womenscenter@weber.edu)) to schedule a Safe@Weber presentation for your class, club, or WSU community.

## **Housing & Residence Life**

**Telephone:** 801-626-7275

**Location:** Wildcat Village

**Website:** [weber.edu/housing](http://weber.edu/housing)

Housing serves single students who choose to live on campus in a living/learning environment which includes peer counseling, social education, academic support, and planned activities. Housing is located in two distinct villages. University Village is comprised of 4-person suite style with kitchens, private bedrooms and 2 bathrooms. Wildcat Village, our newest on-campus housing offers single and double rooms in a suite style with 4 people per suite. Housing includes high speed internet, IPTV, fully furnished, fitness centers, laundry, and mail facilities. Wildcat Village also has a food service operation in the complex.

With our Living/Learning Villages, Housing offers several opportunities for students to get involved. Resident Assistants (RA's), Residence Hall Association (RHA), and Office Assistants (OA's) work and/or volunteer in the housing community.

## **Student Life & Activities**

### **Campus Recreation**

**Telephone:** 801-626-7967

**Location:** Stromberg Wildcat Center for Health, Education, and Wellness, Room 101

**Website:** [weber.edu/campusrecreation](http://weber.edu/campusrecreation)

The Department of Campus Recreation offers a variety of recreational opportunities throughout the Ogden and Davis campuses for users with an active WSU Wildcard. The staff strive to create opportunities that inspire engagement in healthy active lifestyles! Please check [weber.edu/campusrecreation](http://weber.edu/campusrecreation) for facility hours, program information, and schedules.

Campus Recreation offers students opportunities to improve their personal health, well-being, and overall fitness through the following programs/services:

- Aquatics & Safety (drop-in swim, swimming lessons, CPR/First Aid certifications)
- Fitness (drop-in strength and cardio, drop-in group exercise classes, personal fitness training)
- Competitive Sports (Intramural Sport leagues/tournaments and Sport Clubs)
- Outdoor Programs (Located in Annex 9; outdoor equipment rental center, outdoor trips/clinics, drop-in climbing/special events at the Weber Rocks Climbing Wall, Challenge Course activities)
- Special Events

### **WSU Athletics**

**Telephone:** 801-626-6817

**Location:** Stadium, second floor

**Website:** [www.weberstatesports.com](http://www.weberstatesports.com)

The mission of the Department of Intercollegiate Athletics is to support the greater mission of Weber State University in meeting the educational needs of Utah by stimulating and improving athletics programs for students designed to develop and promote skills that assure an excellent chance of success in athletics participation, college, and career.

## **Shepherd Union**

**Telephone:** 801-626-6367

**Location:** Shepherd Union

**Website:** [weber.edu/union](http://weber.edu/union)

The Shepherd Union provides a focal point for the Weber State University community through an array of programs, services and operations which are:

- Wildcard Office - Shepherd Union Information Center
- Information Center
- Wildcat Lanes & Games Center
- Personal Banking
- WSU Bookstore
- Scheduling Events and Conference Services
- Dining Services

## **Student Involvement and Leadership**

**Telephone:** 801-626-6349

**Location:** Shepherd Union, Suite 326

**Website:** [weber.edu/studentinvolvement](http://weber.edu/studentinvolvement)

Student Involvement and Leadership is committed to enhancing student life by providing inclusive programs and leadership opportunities which promote education, engagement and development. SIL is committed to providing opportunities for all students in clubs and organizations, leadership workshops and programs, events and campus activities, the WSUSA Senate, service and civic engagement, and diversity programming.

SIL programs focus on helping students develop in the following areas:

- Leadership development
- Interpersonal skills
- Personal growth
- Problem solving skills
- Cultural awareness
- Critical thinking skills
- Self-esteem
- Civic engagement

## **Diversity and Inclusive Programs**

**Coordinator:** Teresa Martinez

**Location:** Shepherd Union Building, Room 232C

**Telephone:** 801-626-6957

**Internet Address:** [weber.edu/diversity](http://weber.edu/diversity)

**Email:** [diversity@weber.edu](mailto:diversity@weber.edu)

At Weber State University's Diversity and Inclusive Programs, we are committed to providing access, building community, and educating each other about diversity issues while creating a learning environment that values inclusion, cultural competence, and intercultural sensitivity for all students, staff, and faculty. We are committed to the pursuit of learning from and with a diverse group that sometimes reflects who we are and sometimes does not in order to affirm the dignity of all people.

The Diversity and Inclusive Programs strives to achieve these efforts by following closely along with the University's Inclusivity Statement and Diversity Initiative.

Opportunities for students include:

- Planning, volunteering and attending diversity-related events
- Participating on the Diversity Board planning committees
- Leadership opportunities within WSUSA

Office hours at Ogden Campus Only (Shepherd Union 232C)  
8:00 AM - 5:00 PM Monday - Friday

### **LGBT Resource Center**

**Location:** *Student Service Center, Room 154*

**Telephone:** *801-626-7271*

**Website:** *weber.edu/lgbtresourcecenter*

The LGBT Resource Center is committed to supporting students, faculty, staff and community members by providing information, resources and support to accommodate the needs of individuals in our community. Our goal is to create a safe and inclusive environment for the LGBTQ+ and ally community within the university through educational experiences, advocacy and support that promotes the personal, intellectual and academic growth of all students, faculty and staff.

The LGBT Resource Center strives to achieve these efforts by following closely along with the university's Inclusivity Statement and Diversity Initiative.

Opportunities for students, faculty and staff include:

- Safe Zone Ally Training, Transgender and LGBTQ 101 workshops and activities
- Weekly LGBTQIA Support and Discussion Group
- Annual events and activities including Pride Week, National Coming Out Day, Transgender Education and Awareness Month, Gaypril and PRIDE
- Scholarship opportunities

### **Center for Community Engaged Learning**

**Telephone:** *801-626-7737*

**Location:** *Shepherd Union, Suite 327*

**Website:** *weber.edu/CCEL*

The Center for Community Engaged Learning represents an intentional and strategic partnership between Academic Affairs and Student Affairs to facilitate a civically engaged experience for Weber State University students. The mission of the center is to engage students, faculty and staff in service, democratic engagement, and community research to promote civic participation, build community capacity, and enhance the education process.

Students can participate in co-curricular service activities addressing environmental concerns, food security issues, lack of low cost housing, and mentoring youth through the Community Engaged Leaders program.

Curricular service-learning, democratic engagement and community research experiences can be accessed in CEL designated courses (community engaged learning).

Students can participate in political and non-political discussions, deliberations and projects addressing issues of public concern through the American Democracy Project or the Engaged Learning Series, which focuses on a different topic each year.

Students engaged in significant service, democratic engagement, and community research for the community can be recognized at graduation for their important contributions through the Excellence in Community Engagement honor or WSU's service-scholar program, Civitas.

Scholarships and AmeriCorps membership offer students the opportunity to pursue their degree and a leadership experience while serving their community.

Hall Endowment for Community Outreach Grants provide funding for faculty, staff and/or students engaged in community engaged learning projects throughout Ogden and the surrounding communities.

Students may also receive recognition for his/her outstanding involvement in the community.

### **WSU Student Association (WSUSA)**

*Telephone: 801-626-6349*

**Location:** *Shepherd Union, Suite 326*

**Website:** *weber.edu/studentinvolvement*

WSU Student Association (WSUSA) includes:

- Legislative Branch (Student Senate)
- Judicial Branch
- Executive Branch
- Committee Involvement

### **Dean of Students**

*Telephone: 801-626-7256*

**Location:** *Miller Administration Building, Suite 317A*

**Website:** *weber.edu/DeanOfStudents*

The Office of the Dean of Students (located in the Miller Administration Building, Suite 317A) is committed to assisting each student to become a successful member of the Weber State University community. As a means of supporting this mission, the Dean's office is responsible for Student Code of Conduct. The Student Conduct process is designed to assist in the development and education of students, promote mutual respect within the University community, contribute to maintaining a safe campus environment, and provide a process for tracking repeated incidents of student code violation.

The WSU Student Code can be found online ([weber.edu/ppm](http://weber.edu/ppm)), WSU Policy and Procedures Manual section 6-22.

## Academic Info & Policies

Weber State University is committed to providing a quality undergraduate education for students. The role of the offices and services listed in this section of the catalog is to support students and help them achieve their educational goals.

### **Contact Information**

Admissions Information	801-626-6743
Admissions Director, Mr. Scott Teichert	801-626-6005
Graduation Information	801-626-6739 or 801-626-6100
Graduation Office, Ms. Lynn Schow	801-626-6327
NCAA Eligibility Information, Mr. Stephen Salmon	801-626-8881
Records Information	801-626-6100
Records Office, Ms. Jamie Call	801-626-7791
Registration Assistance	801-626-6100
Registration Office, Ms. Sharon Dansie	801-626-7780
Registrar, Mr. Casey Bullock	801-626-6061
Associate Registrar,	801-626-6061
Registrar's Solution Center, Ms. Tanya Scott	801-626-6061
Student Success Center	801-626-6752
Student Success Center Director, Ms. Leslie Park	801-626-7910

*For information on General Studies, contact the Student Success Center.*

### **Records**

**Registrar:** Mr. Casey Bullock

**Associate Registrar:**

**Records Supervisor:** Ms. Jamie Call

**Location:** Student Services Center, Room 101

**Telephone:** 801-626-7791

**Fax:** 801-626-6936

**Internet Address:** [weber.edu/records](http://weber.edu/records)

### **Privacy Rights**

The WSU Records Office maintains student records in accordance with the Family Educational Rights and Privacy Act (FERPA), which affords students the right to inspect and review their educational records, the right to seek to have the records amended, and the right to have some control over the disclosure of information from the records. The law generally requires that written consent of the student be received before personally identifiable data about the student is released. Institutions may release, without written consent, those items specified as public or directory information, provided the institution informs students of the data designated as public information and gives students prior opportunity to refuse disclosure of any or all categories of that information. Directory information at Weber State

University is currently specified to include name, address, telephone number, major (program of study), dates of attendance, degree(s) received, full-time/part-time status, and honors received. A student may have their public or directory information made confidential by submitting a written request to the Registrar's Office.

If a student feels that information other than directory information has been made public in violation of this act, they may contact the Registrar's Office to file a formal grievance. Copies of the entire policy or information about specific procedures may be obtained from the Office of the Registrar.

## **Transcripts**

Students may obtain official copies of their academic transcripts from the Registrar's Solution Center. There is a \$5.00 charge for this service. For students who attended prior to Summer 2010, four fee-free transcripts will be provided if the request is made in person or by mail.

- Transcripts picked up in person require photo identification.
- Transcript requests may be made by mail or online at [www.weber.edu/records](http://www.weber.edu/records), (telephone requests cannot be accepted) and should include the student's name, social security number or WSU student ID number, birth date, student's signature and complete address where the transcript should be sent.
- Transcript requests by anyone other than the student must be accompanied by a written release from the student that includes:
  - A sentence stating that you have given your consent to a friend or a relative to pick up your transcript.
  - The name of your friend or relative that will be retrieving your transcript.
  - Your full name and any prior names.
  - Your Social Security Number or Student ID Number and birth date.
  - Your approximate dates of enrollment.
  - Your signature.

*The person receiving the record will be asked to show photo identification.*

A printable copy of a transcript request form is available via the WSU Web site at [weber.edu/records](http://weber.edu/records). Requests should be mailed to: Weber State University, Records Office, 3885 West Campus Dr. DEPT 1102, Ogden, UT 84408-1102; or emailed as a pdf or jpeg attachment to [records@weber.edu](mailto:records@weber.edu).

## **Record Holds**

Transcripts and diplomas will not be issued for students who owe money to the University for financial aid, library fines, housing, traffic tickets, etc.

*Students may access their grades on the Internet with a "Wildcat Username" and password. To obtain information about access to the eWeber student portal, contact the Computing Support Center "help desk" at 801-626-7777.*

## **Grading**

### **Grade System**

The following grades and numeric point values are used to compute the cumulative grade point average (GPA).

A	Excellent	4.0
A-	Excellent	3.7
B+	Good	3.3
B	Good	3.0
B-	Good	2.7

C+ Standard	2.3
C Standard	2.0
C- Standard	1.7
D+ Sub-Standard	1.3
D Sub-Standard	1.0
D- Sub-Standard	0.7
E Failure	0.0
UWUofficial Withdrawal	0.0

To calculate a cumulative GPA, the total number of grade points (the number of credit hours per course multiplied by the numeric points listed above for the grade) is divided by the total number of credit hours.

Courses coded with an R in front of the grade (indicating academic renewal), or an E in the far right column of the form (indicating exclusion due to a repeat), are not used in computing the GPA, the graduation hours, or the total hours completed. Courses coded ND (non-degree) are not used in computing the GPA or the graduation hours completed, but they are included in computing the total hours attempted.

Courses with the following notations in the grade column are not used in computing the GPA, the graduation hours, or the total hours completed (with the exception of CR-Credit courses which may be used toward graduation hours or total hours).

#### **AU-Audit**

- Indicates the student was allowed to sit in a class without earning credit or a grade.
- Audit Students who fail to attend class without withdrawing, may be issued a withdrawal (W). (See Registration section of this catalog.)

#### **CE-Continuing Education Unit**

- Students who enroll in a Continuing Education Unit through the Continuing Education Office, will receive a CE grade. It is not counted in the WSU GPA or Total Hours, but can be listed on a transcript.

#### **CR-Credit**

- Indicates the student registered for a course on a pass/fail basis and earned a C- or better. (See Registration section of this catalog.)
- Certain courses are offered on a credit/no credit basis only and letter grades are not given.
- Credit/no credit courses may only be used as electives in a student graduation requirements. Classes taken on a credit/no credit bases will not satisfy major, minor, or general education requirements with exception of those courses or programs of study approved by the University Curriculum and General Education committee and those courses approved by academic departments for credit by special examination.
- A maximum of 20 hours of credit/no credit electives may be used for graduation.

#### **I-Incomplete**

- Indicates the student was unable to complete the course for a legitimate reason (such as accident or illness) after having completed a substantial portion (approximately 80%) of the required work.
- A written contract between the student and the instructor indicates the work still to be done and the deadline for its completion (within 12 months).

- The student must complete remaining work without re-registering or attending the class during a subsequent semester.
- Credit hours are not counted until a letter grade is posted.
- All incomplete (I) courses must be completed prior to graduation.

#### **NC-No Credit**

- Indicates the student registered for a course on a credit/no-credit basis and earned less than a C-.
- Students who stop attending a class for which they are registered on a credit/no-credit basis without officially withdrawing will receive an NC grade entry for that class.
- Certain courses are offered on a credit/no credit basis only and letter grades are not given.

#### **NG-No Grade Reported**

- The instructor has not reported a grade for the course.

#### **SC-Special Credit**

- The student has received credit through an examination, waiver, or substitution for which they are not eligible for a letter grade.
- These credits are counted toward the total number of credits required for graduation but are not used to calculate the cumulative grade point average.
- Special credits may be used for graduation requirements as determined by the academic departments.

#### **T-Temporary Grade**

- The course is being continued in the subsequent semester and a grade and credits will be calculated when the course is complete and a letter grade has been issued. The "T" grade is approved for specific courses only.

#### **UW-Unofficial Withdrawal**

- Indicates the student stopped attending the course without officially withdrawing. Note: UW's are calculated as failing grades in the student's semester and cumulative grade point averages.

#### **W-Withdrawal**

- The student withdrew from the course in the interval comprising the 16th through the 50th business day of a semester or the 30th business day of a block. Withdrawals are not permitted after the 50th business day of a semester or 30th business day of a block.

#### **Changing of Grades**

- Grades may be changed only by the instructor who submitted the original grade.
- Students who feel their work has been evaluated unfairly should contact the instructor.
- Students who choose to complete a course on a credit/no credit basis may petition the Registrar's Office to have a CR grade replaced by the earned letter grade if they recently changed their major or minor and need the letter grade to meet graduation requirements for the new major or minor.

#### **Repeat Courses**

- Repeated courses will be automatically flagged as part of the grading process at the end of each term.

- Each course (unless specifically listed as repeatable for credit in the course description) may be used only once in cumulative hours and GPA.
- A course will appear on the transcript each time it is completed, but it will be counted only once in total hours and only the most recent letter grade received will be used to calculate the GPA (CR is not considered a letter grade and will not cause a previous grade to be discounted).
- Once a bachelor's degree has been posted to a student's permanent record, courses used for that degree may not be repeated to improve their GPA.

### **Academic Renewal Policy**

1. The applicant for academic renewal must be a currently enrolled undergraduate student or must have been enrolled during the previous term. Students who are not currently enrolled and who cannot obtain financial aid until their GPA is recalculated using Academic Renewal should begin the process with Academic Records and take written evidence of the initiation of this process to the Financial Aids Office.
2. Academic renewal may be requested only once during a student's academic career.
3. Once a certificate, associate, or bachelor degree is awarded by Weber State University or received as a transfer credit, any Weber State course(s) completed prior to the completion of that certificate or degree will not qualify for academic renewal. However, WSU courses completed after receiving a certificate or associate degree, but before completion of a bachelor degree, are eligible for renewal if they meet the requirements.
4. The policy does not apply to graduate students or students pursuing a second bachelor's degree.
5. Grades of "D+" or less which were earned six years or more prior to the petition date will not be computed in the grade point average.
6. Academic requirements may not be satisfied by courses to which academic renewal has been applied.
7. Hours not used for grade point average purposes are not used to satisfy total and upper division credit hour requirements.
8. The Academic Renewal Policy will apply only to courses taken at Weber State University.
9. Only the calculation of a student's grade point average will be affected by this policy.
10. This policy applies to WSU GPA calculation only. A student's GPA when transferring or applying for graduate/professional schools will be calculated according to the policy of that institution, i.e. the receiving institution may average the grades or use the original grades.
11. Students who are applying for academic renewal and graduating in the same semester must notify the Graduation Department.

*Applications for academic renewal and detailed policy information are available at the Records Office or at [www.weber.edu/records](http://www.weber.edu/records).*

### **Credit by Examination or Petition**

**Contact:** Records Office

**Location:** Student Services Center, Room 101

**Telephone:** 801-626-6100

Students may receive WSU degree credit by examination or petition under the following restrictions:

- The student must be a WSU-admitted student.
- The student must pay the appropriate recording fee in addition to specific test fees.
- Credit will not be given if it duplicates previous examinations, petitions or course work for which a student received a grade (A-E) or notation I, T, W, UW, CR, NC.
- Credit by examination or petition will not be considered part of the residency requirement.
- Credit by examination or petition, although graded with credit (SC), may be used to satisfy major, minor and general education requirements.

### **Advanced Placement Examination (AP)**

- AP credit is earned by completing one or more high school AP courses and successfully completing the appropriate exam(s) while in high school.

- WSU credit hours may be earned with each AP examination score of 3, 4, or 5. Credit awarded is at the discretion of the academic department. Some departments require a score of 4 or 5 for the awarding of credit. Please see <http://www.weber.edu/admissions/aptests.html> for details.
- To have credit evaluated, a student must submit their scores and pay a \$10 recording fee.
  - Scores may be submitted to the Admissions Office as a part of the Admissions process, or
  - Scores may be submitted to the Admissions Office in person, along with a receipt for the \$10 recording fee payment.
- If a student submits AP, CLEP, and IB scores for evaluation, the IB scores will be awarded first. If the AP or CLEP credit duplicates the IB credit already awarded, the AP and CLEP credits will be reduced by the amount of credit awarded for the IB Higher-Level Subject in the specific area.

### **International Baccalaureate Credit (IB)**

- A student who completes the IB Diploma program will receive 30 semester credit hours, a waiver of all Breadth Requirements contained in the general education requirements, and a waiver of the University Diversity requirement. To further waive the Core Requirements of general education, a student must complete the corresponding Higher-Level Subject with a score of five (5) or higher.
- If the IB Diploma is not earned, students will be awarded eight (8) semester hours of credit and a waiver of the corresponding general education requirement for each Higher-Level Subject completed with a score of five (5) or higher.
- If a student submits AP, CLEP, and IB scores for evaluation, the IB scores will be awarded first. If the AP or CLEP credit duplicates the IB credit already awarded the AP and CLEP credits will be reduced by the amount of credit awarded for the IB Higher-Level Subject in the specific area.
- A student must be admitted and matriculated at WSU to have IB credit evaluated.
- Once test results have been received, students eligible for credit will receive an evaluation from the Admissions Office with instructions about how to have credits added to their transcript.

### **College Level Examination Program (CLEP)**

- CLEP is a way for students to earn college credit by completing one or more of the General or Subject Examinations administered by the Testing Center.
- Applications and further information on the procedure, fees and testing schedule are available from the WSU Testing Center.
- A student's test scores will be considered if the student drops the same course within the first 3 weeks of the semester.
- Students must submit examination scores and a receipt for the \$10 application fee to the Admissions Office to initiate the evaluation process.

### **Special Examination**

- Special examinations may be arranged to earn credit for some WSU courses not covered by CLEP testing. Each department determines which courses will qualify.
- Students must provide evidence of sufficient background in the area to be tested.
- Applications for Special Examinations and further information about requirements, limitations, and fees may be obtained from the academic departmental offices.

### **Foreign Language Credit for Prior Language Experience**

- Students with prior language experience may be given foreign language credit by examination or by passing an upper division (3000-level or higher) course with a minimum grade of C. See the Foreign Language Department for applications and more information.

## **Credit for Military Training**

- Students who have completed at least 24 months of active military service may be granted a maximum of 10 credit hours. These credits are awarded as social science general education course HLTH 1030 (3 credit hours) and 7 elective credit hours.
- Students who have completed four or more years in the National Guard or a reserve unit may be granted social science general education course HLTH 1030 (3 credit hours) and 7 elective credit hours.
- Additional credit may be granted for military schooling if specific requirements are met.
- To receive credit students should submit military form DD-214 and a receipt for the \$10 recording fee to the Records Office to start the process.
- Military credit will be evaluated only if it can be applied to a legitimate undergraduate degree program. Students who already have a bachelor's degree are not eligible for a military credit evaluation.
- Military credit is added to a student's total credit hours completed, and may reduce a student's eligibility for financial aid.
- More information can be found at: [http://www.weber.edu/Records/Military\\_Credit.html](http://www.weber.edu/Records/Military_Credit.html)

## **Credit for Courses from Non-accredited Schools and Colleges**

- Students with credit from non-accredited schools may request transfer credit for certain courses which are equivalent to courses described in the catalog.
- Official transcripts with the Application for Transfer Credit form should be taken to the appropriate academic department for evaluation. Transfer credits from non-accredited schools may be accepted under the following guidelines.
- Credit may be accepted only if the course is deemed to be equivalent to a course at in the WSU catalog.
- Specific course credit may be applied by the Admissions Office if recommended and approved by the appropriate department chair with the Application for Transfer Credit form which can be obtained from the Admissions Office.

## **Credit for Experiential Learning and Industrial or Commercial Training**

- Credit for experiential learning shown to be equivalent to courses described in the catalog may be allowed by some departments according to specific guidelines.
- Application for Credit forms and further information are available from the major and minor department offices.
- Before credit for prior experiential learning becomes part of the student's permanent record, the student must have completed thirty credit hours with a GPA of 2.25 or better to establish evidence of a satisfactory learning pattern.

## **Academic Standards/Eligibility**

**Registrar:** Mr. Casey Bullock

**Associate Registrar:**

**Academic Standing Coordinator:**

**Location:** Student Services Center, Room 101

**Telephone:** 801-626-6061

**NCAA Eligibility Advisor:** Mr. Stephen Salmon

**Location:** Student Services Center, Room 101

**Telephone:** 801-626-8881

## **Minimum GPA Standards**

The minimum cumulative grade point average (GPA) required at WSU is 2.00 or C. The minimum GPA required by the University for graduation is 2.00; however most majors and minors have a higher requirement. Students with a GPA below 2.00 will receive one of the following notices and should see an advisor immediately.

### **Academic Warning**

- Students who have accumulated less than 60 semester credit hours with a cumulative GPA below 2.00 will be placed on academic warning.

### **Academic Probation**

- Students who have accumulated less than 60 semester credit hours who earn a semester GPA below 2.00 while on academic warning will be placed on academic probation. They must earn a GPA of at least 2.00 their next semester to avoid suspension.
- Students who have accumulated 60 or more semester credit hours who have a cumulative GPA lower than 2.00 will be placed on academic probation and must earn a GPA of at least 2.50 their next semester to avoid suspension.

### **Academic Suspension**

- Students who do not earn the minimum required GPA while on probation will be suspended for a length of time specified according to the number of suspensions:
  - Students suspended for the first time will be required to remain out of school for one semester.
  - Students suspended for the second time must remain out of school for one calendar year.
  - Students suspended for the third time must remain out of school for three years.

### **Appeal Procedure**

- Students who have been placed on academic warning, probation, or suspension and feel their classification is in error or wish to appeal their status should see the Associate Registrar to review their records and receive information regarding the process of appeal.
- Early readmission from suspension will be considered if the student meets with their academic advisor, presents evidence which shows a positive change of circumstance and suggests a high probability of future academic success.

### **Academic Honors**

Each semester, students who complete at least 12 credit hours with letter grades (CR/NC grades and ND courses will not be counted) will qualify for honors recognition on the basis of their semester GPA as follows:

4.00 for the High Honors Certificate  
3.50 to 3.99 for the Honors Certificate

### **Student Activity Eligibility**

Students participating in activities such as student government, university organizations, clubs, special awards and intramural athletics should be matriculated students working toward a degree or certificate. Many individual programs and organizations have standards higher than this minimum.

## Intercollegiate Athletics Eligibility

Students participating in NCAA sports must be enrolled as full-time students in a Bachelor's degree program, must remain in good academic standing, and must meet the satisfactory progress policies of the University, the Big Sky Conference and the NCAA. Details of these requirements may be obtained from the Eligibility or Compliance Office.

## Graduation

**Registrar:** Mr. Casey Bullock

**Associate Registrar:**

**Graduation Advisor:** Ms. Lynn Schow

**Location:** Student Services Center, Room 101

**Telephone:** 801-626-6100

**Internet Address:** [weber.edu/registrar](http://weber.edu/registrar) (click on graduation)

## Commencement

Commencement ceremonies are held in April and December. Students who complete degree requirements during the fall semester may attend commencement ceremonies in December, or the following April. Students who complete requirements in the spring are eligible to attend the April commencement ceremonies. Students who complete degree requirements in the summer may attend ceremonies the prior April or the following December.

Students' names will appear in the commencement program according to the following:

- Fall applications submitted by the Fall deadline will appear in the December commencement program
- Spring applications received by the Spring deadline will appear in the April commencement program.
- Summer applications received by the end of summer semester will appear in the following December commencement program.

Commencement information will be mailed to all candidates who apply for graduation by the application deadlines. This information may also be obtained from the Graduation Office.

## Graduation Application Deadlines and Verification Process

Graduation Application Schedule of Deadlines			
<i>Semester that all your degree requirements will be complete:</i>	<i>Graduation Application Deadline:</i>	<i>Commencement program that your name will be listed in:</i>	<i>Graduation Requirement Completion Deadline:</i>
Summer 2018	June 29, 2018	December 2018	October 8, 2018
Fall 2018	October 5, 2018	December 2018	February 4, 2019
Spring 2019	February 15, 2019	April 2019	June 17, 2019
Summer 2019	June 28, 2019	December 2019	October 7, 2019

Students who are nearing completion of Graduation Requirements, should take the following steps:

1. Schedule an appointment and meet with your advisor(s) as required. Keep in mind that you may need to see a college advisor, a major advisor, and a minor advisor. NOTE: Students seeking an Associate of Science or Arts degree in General Studies should meet with an Academic Advisor in the Student Success Center.
2. Review your Cattracks degree evaluation with your advisor(s). Make sure that your Program of Study is correctly listed in your Cattracks degree evaluation and then check for missing requirements with your advisor(s). Program of Study corrections must be completed with your advisor prior to submitting your graduation application.
3. Submit your application for the semester that all of your program requirements will be complete. Applications are online - log into your e-Weber portal, search on "Graduation Application" in the search bar and then follow the instructions outlined in the graduation application.
4. Commencement Ceremony information will be sent to all candidates who apply by the application deadline.

**All possible care is taken in checking student records for graduation; however, it is the sole responsibility of the student to verify all requirements for a degree.**

- The Graduation Office will confirm that the requirements defined in the student's degree evaluation are completed before posting their degree or certificate.
- Students who do not complete graduation requirements by the Graduation Requirement Completion Deadline or who change their graduation semester should notify the Graduation Office of their new anticipated semester graduation date. Complete policy information on Graduation Requirement Deadline is at [http://www.weber.edu/ppm/Policies/4-1\\_GraduationStandards.html](http://www.weber.edu/ppm/Policies/4-1_GraduationStandards.html)
- Diplomas will be sent and degrees will be posted to student transcripts the semester following completion.

### **Changes in Graduation/Catalog Requirements**

Entering students, including first-time and transfer students, will be required to complete the degree and program requirements listed in the catalog in effect when they first enroll, with the following exceptions:

- When students change their program of study, they are then required to graduate under the catalog in effect when they declare the new program of study (see Program of Study (Major/Minor) Declaration).
- Students must complete major and minor requirements under a catalog no older than 6 years for a bachelor's degree or 3 years for an associate's degree, respectively. Students taking longer to graduate may either choose to graduate under the requirements from the oldest active catalog or under the catalog which is in effect at the time they file for graduation.

### **Requests for Exceptions to Graduation Requirements**

Requests for exceptions to graduation requirements are considered only on the basis of substantial and reasonable grounds. Students should contact the academic department who has oversight for the major or minor requirements for more information about their exceptions process. Questions about all other degree requirements can be brought to the Registrar's Office.

### **Completed Degree**

Once a degree has been completed, the degree title and program name cannot be altered and a student cannot change factors related to that degree; courses cannot be repeated to improve the GPA, grades cannot be changed, and majors or minors cannot be added. If a student continues to earn a second bachelor's degree or a master's degree, credit hour and GPA calculations begin again. If a student continues on to earn a bachelor's degree after earning an associate's degree, the grades earned toward the associate's degree will be used in calculating cumulative GPA for the bachelor's degree. Academic renewal cannot be applied to courses taken prior to the posting of an associate's degree.

### **Awarding of Multiple Degrees**

Students may receive two degrees in the same academic year with the following exceptions:

- Students who complete requirements for an associate's degree (AA/AS) in general studies, and a bachelor's degree in the same academic year will be awarded the bachelor's degree only.
- Students who first earn an associate of arts or science degree in a specific academic area of study will not be awarded an associate's degree (AA/AS) in general studies.

*Students must apply for graduation for each degree or certificate received.*

## **Second Bachelor's Degree**

A student may qualify for admission to a second baccalaureate degree following the completion of a first bachelor's degree at an accredited institution. The first and second baccalaureate degrees may not be awarded during the same semester or term. To qualify for a second degree, a student must complete a minimum of 30 credit hours in residence at WSU with a GPA of at least 2.00 and fulfill all requirements for the programs declared in second degree. For students whose first baccalaureate degree is also from Weber State University, credits earned in conjunction with but beyond the minimum credits required for the first degree may be applied toward the second baccalaureate degree. However, a minimum of 12 semester credit hours must be earned at WSU after the first degree is conferred. All candidates for a second bachelor's degree must satisfy the university's diversity (DV) requirement. Course work taken as part of the first degree that is comparable to the current list of approved diversity courses may be used to satisfy this requirement. Students pursuing a Bachelor of Arts, Bachelor of Music, Bachelor of Music Education, or Bachelor of Arts in Music must fulfill WSU's foreign language requirement. Policy governing the second bachelor's degree can be found in PPM 4-1.I.G. For additional information about a second baccalaureate policy please contact the academic department in which you plan to earn your second degree.

## **Honors at Graduation**

Students who qualify for honors based on their cumulative WSU grade point average (GPA) will have the appropriate designation indicated on their transcripts and diplomas.

### **Bachelor's Degree Honors**

*Summa Cum Laude* - WSU GPA of 3.90 or higher.

*Magna Cum Laude* - WSU GPA of 3.80 or higher.

*Cum Laude* - WSU GPA of 3.60 or higher.

### **Associate's Degree Honors**

*High Honors* - WSU GPA of 3.85 or higher.

*Honors* - WSU GPA of 3.60 or higher.

*Additional honors awarded at graduation are described under the Honors Program (see Honors Program).*

# Degree Requirements

## General Requirements All Degrees

1. Students must earn a cumulative GPA of at least 2.00 for all WSU work. No more than 20 credit hours of "D" grade may be applied toward graduation. A college or department may reject any or all "D" grade work toward major or minor requirements.
2. Graduation credit hours must be earned after students have matriculated. Credit hours earned prior to matriculation must be approved by the Graduation Office.
3. All financial obligations to the university must be cleared.

## Requirements for Minors

The term "minor" refers to a collection of related courses that are a student's secondary field of academic concentration or specialization while completing a bachelor degree. Minors may be completed with any bachelor degree. Many majors require the completion of a minor; this is designated under the requirements for each major.

## Requirements for Master's Degrees

WSU offers fourteen master's degree programs. Information concerning admission to and requirements for these programs is located in the sections of this catalog for the colleges indicated below.

Also refer to the WSU Graduate Programs policy at [weber.edu/ppm/Policies/11-1\\_GraduatePrograms.html](http://weber.edu/ppm/Policies/11-1_GraduatePrograms.html).

- Master of Arts in English (MA) Telitha E. Lindquist College of Arts & Humanities
- Master of Professional Communication (MPC) Telitha E. Lindquist College of Arts & Humanities
- Master of Accounting (MAcc) John B. Goddard School of Business & Economics
- Master of Business Administration (MBA) John B. Goddard School of Business & Economics
- Master of Taxation (MTax) John B. Goddard School of Business & Economics
- Master of Education in Curriculum and Instruction (MEd) Jerry and Vickie Moyes College of Education
- Master of Science in Athletic Training (MS) Jerry and Vickie Moyes College of Education
- Master of Health Administration (MHA) Dr. Ezekiel R. Dumke College of Health Professions
- Master of Science in Nursing (MSN) Dr. Ezekiel R. Dumke College of Health Professions
- Master of Science in Nursing-Nurse Practitioner (MSNP) Dr. Ezekiel R. Dumke College of Health Professions
- Master of Science in Radiologic Sciences (MSRS) Dr. Ezekiel R. Dumke College of Health Professions
- Master of Science in Respiratory Therapy (MSRT) Dr. Ezekiel R. Dumke College of Health Professions
- Master of Science in Criminal Justice (MCJ) College of Social & Behavioral Sciences
- Master of Science in Computer Engineering (MSCE) College of Engineering, Applied Science & Technology

## Requirements for Bachelor's Degrees

1. A minimum of 120 credit hours.
2. A minimum of 40 upper-division credit hours (courses numbered 3000 and above).
3. A minimum of 30 hours in residency (WSU courses).
4. At least a 2.0 (C) WSU grade point average (GPA).
5. Completion of WSU general education, diversity, major and minor requirements.
6. One of the following bachelor's degrees must be specified and the WSU general education, major and minor requirements completed. Some departments may specify completion of specific general education courses.
  - Bachelor of Arts (BA)
  - Bachelor of Fine Arts (BFA)  
*This degree may be earned only by Visual Arts majors; see the Visual Arts Department section for the application process.*

- Bachelor of Music (BM)  
Bachelor of Music Education (BME)  
*These degrees may only be earned by Music majors; contact the Department of Performing Arts for more information.*
- Bachelor of Science (BS)
- Bachelor of Integrated Studies (BIS)  
*See the Integrated Studies (BIS) section of this catalog for information about program requirements and the application process.*

## Language Requirement

The **Bachelor of Arts** degree includes a language requirement which may be met by one of the following options:

- **Option 1 - Foreign Language**

*One of the following*

1. Documentation of a proficiency level of "Intermediate Low" or better through an examination administered by the WSU Foreign Language Department or through an examination by a recognized testing agency.
2. Completion of WSU foreign language course 2020 with a grade of "C" or higher, or comparable transfer credit.
3. Completion of any upper-division WSU foreign language course with a grade of "C" or higher, or comparable transfer credit.
4. Students for whom English is a second language may meet the BA foreign language requirement by:
  - verifying their proficiency in their (non-English) native language in cooperation with the Foreign Language Department  
*and*
  - verifying their proficiency in English as a Second language by passing the ESL Special Examination.
5. Documentation of a minimum proficiency level in American Sign Language through an examination administered by the American Sign Language/Interpreting Program at Salt Lake Community College. The signer must produce and maintain American Sign Language with "continuity and precision."
6. Completion of WSU American Sign Language course 2020 with a grade of "C" or higher, or comparable transfer credit.
7. Completion of twelve semester-hours of foreign language.

*Refer to the Foreign Language section of this catalog for additional information on obtaining foreign language credit.*

- **Option 2 - Foreign Language with Language Arts**

**Note: This option is only available when specified by the major course requirements.**

1. Completion of at least six semester-hours of foreign language with further course work up to six semester-hours in the language arts beyond the composition requirement in the general education core. Language arts course work may include literature, creative writing, rhetoric, music composition, etc. Students should refer to the major for specific requirements.

The **Bachelor of Music** degree and **Bachelor of Music Education** degree requirement is for two semesters of foreign language chosen from French, German, Italian, and Spanish. The requirement may be satisfied by taking two semesters of the same language, or one semester each of two different languages.

## Requirements for Associate's Degrees

### AA/AS Degree Requirements

*If you are earning an Associate's Degree in General Studies, contact the Student Success Center (see weber.edu/ssc).*

1. A minimum of 60 credit hours.
2. A minimum of 20 hours in residency (WSU courses).
3. At least a 2.0 (C) WSU grade point average (GPA).
4. Completion of WSU general education requirements.

The **Associate of Arts** Degree must include a foreign language or ASL (American Sign Language) requirement which may be met by one of the following:

1. Documentation of a proficiency level of "Novice High" or better through an examination administered by the WSU Foreign Language Department or through an examination by a recognized testing agency.
2. Completion of WSU foreign language course 1020 with a grade of "C" or higher, or comparable transfer credit.
3. Completion of any WSU foreign language course at a level beyond the first year with a grade of "C" or higher, or comparable transfer credit.
4. Documentation of three years of the same language completed in high school with a minimum grade of "B".
5. Documentation of a minimum proficiency level in American Sign Language through an examination administered by the American Sign Language/Interpreting program at SLCC. The signer must "demonstrate proficiency in temporal aspect, spatial agreement and in describing things around her/him and the deaf culture."
6. Completion of WSU American Sign Language course 1020 with a grade of "C" or higher, or comparable transfer credit.

### **AAS Degree Requirements**

1. A minimum of 63 credit hours.
2. A minimum of 20 hours in residency (WSU courses).
3. At least a 2.0 (C) WSU grade point average (GPA).
4. General education requirements are specified by each program and include at least the following:
  1. **ENGL 1010** or **ENGL 2010** and one other course in oral or written communication (6 credit hours);
  2. **Math** or discipline-specific statistics as designated by specific programs (3 credit hours);
  3. One course in each of the three following areas (9 credit hours): **Creative Arts & Humanities** (CA or HU), **Life & Physical Sciences** (LS or PS), and **Social Sciences** (SS).

### **Requirements for Institutional Certificates**

Students are awarded an Institutional Certificate when they complete a program of study fulfilling a 10 credit hour minimum in residence at Weber State. Course work for institutional certificates is designed in a specific area for career and technical education purposes or for professional development. Students enrolled in Institutional Certificate programs are awarded diplomas indicating they have completed an Institutional Certificate in a defined area. Institutional Certificates are designated as "Institutional Certificate" under the Degrees/Programs listing (see Programs Sorted by Degree). Refer to the listings under the academic department for specific requirements. At the discretion of the department credits earned as part of an Institutional Certificate may be applied to a degree. Students enrolled in Institutional Certificate programs may need to meet additional credit hour requirements in order to qualify for financial aid and should check with the Financial Aid Office.

### **Requirements for Graduate Certificates**

A Graduate Certificate is a program of study, less than a year in length, made up of graduate-level course work, with a prerequisite of at least a Bachelor's degree. Students enrolled in Graduate Certificate programs are awarded diplomas indicating they have completed a Graduate Certificate in a defined area. Institutional Certificates are designated as "Grad Cert" under the Degrees/Programs listing. Refer to the listings under the academic department for specific requirements.

### **Requirements for Certifications**

Students are awarded departmental certifications for completing a course or series of courses in a specified area. Certifications are designated as "Certification" under the Degrees/Programs listing (see Programs Sorted by Degree). Refer to the listings under the academic department for specific requirements. Students enrolled in certification programs may need to meet additional credit hour requirements in order to qualify for financial aid and should check with the Financial Aid Office.

# Weber State University General Education Requirements

General education at Weber State University provides students with a foundation in the arts and sciences that transcends and complements their academic emphases. This exposure to diverse fields of study enables students to make intellectually honest and ethical decisions that reflect a knowledge of and respect for diverse people, ideas, and cultures. Such breadth of education also cultivates skills critical to student success in academic, personal, professional and community endeavors both within and beyond the university.

## Students completing general education can:

- Communicate, understand and interpret ideas and information using written, oral and visual media
- Think critically and creatively to construct well-reasoned arguments supported by documented research
- Use quantitative, mathematical relationships, operations and reasoning
- Demonstrate an understanding of the history, foundational principles, economics, and politics of the United States
- Demonstrate an understanding of how the biological and physical sciences describe and explain the natural world
- Demonstrate an understanding of humans, their behavior, and their interaction with and within their physical, social, local and global environments
- Demonstrate an understanding of diverse forms of aesthetic and intellectual expression

Before selecting general education courses, students should consult with an academic advisor ([weber.edu/advisors](http://weber.edu/advisors)) and review their CatTracks degree evaluation accessed through the eWeber student portal.

## CORE GENERAL EDUCATION REQUIREMENTS

The core requirements listed below apply to all Bachelor's degrees and AA/AS degrees. It is recommended that students complete these requirements within the first 60 credit hours. General education requirements for AAS degrees vary and are specified by each program.

### COMPOSITION (EN) 3 credit hours

Complete ENGL 2010 EN - Intermediate College Writing (3) and earn a "C" grade or better.

Entrance into ENGL 2010 requires one of the following: Passing ENGL 1010 with a grade of "C" or better, passing the AP Language and Composition or Literature and Composition examination with a score of 3 or better, achieving an ACT English and Reading score of 29 or better, a CLEP with essay test with a score of 50 or better, or an articulated transfer credit from another regionally accredited college or university.

### QUANTITATIVE LITERACY (QL) 3-5 credit hours

Select one of the following options and earn a "C" grade or better:

- MATH 1030 QL - Contemporary Mathematics (3), OR MATH 1040 QL - Introduction to Statistics (3), OR MATH 1050 QL - College Algebra (4), OR MATH 1080 QL - Pre-calculus (5), OR MATH 2020 QL - Mathematics for Elementary Teachers II (3), OR any WSU Math course for which either MATH 1050 or MATH 1080 is a prerequisite
- A score of 70 or greater on the College Level Math portion of the Accuplacer exam

- Credit recorded on a transcript of a score of 3 or higher on the AP Calculus or AP Statistics exam (Credit by Examination)

To enroll in MATH 1030, 1040, 1050, 1080, or 2020 you must have either earned an ACT Math score of 23 or higher, completed MATH 1010 with a "C" grade or better, or earned an appropriate Accuplacer score.

If you earned a "C" grade or better in PHIL 2200 between Spring 2007 and Spring 2013 and you are declared in a catalog year between Spring 2007 and Spring 2013, your QL requirement is also met. Some departments may not accept PHIL 2200 toward program requirements.

## Math Placement

Effective Date: March 31, 2017

### Rubric - High School GPA and Math ACT

Your initial math placement level is based on your Math ACT score or a weighted rubric of your high school GPA and Math ACT scores (if you took the SAT, your scores will be converted to an equivalent score). If you do not have a high school GPA and Math ACT you should take a placement test. (You may enroll in MATH 0950 Pre-algebra without a placement score.) You may also challenge your initial placement by taking a placement test. **Check with your college advisor before enrolling in your first math course to ensure you register for the course most appropriate for your major. Many programs require you to take a specific Quantitative Literacy (QL) course to satisfy major requirements.**

### Placement Tests

Weber State offers a choice of several placements tests for students who do not have math placement or would like to challenge their initial placement. Fees and administration of the placement tests vary. See the Testing Center website for more information.

- **ALEKS** (<http://www.weber.edu/developmentalmath/aleks.html>) (**A**ssessment and **L**earning in **K**nowledge **S**paces) is an online math learning system that uses adaptive questioning to quickly and accurately provide you with a course placement as well as a comprehensive overview of your strengths and weaknesses. ALEKS is in pilot phase and is subject to change; however, all placement will be honored should cut scores change. The ALEKS Placement Test fee includes access to review modules, practice tests, and limited test retakes for a 6 month period of time.
- **ACCUPLACER** (<http://www.weber.edu/TestingCenter/accuplacer.html>) is a placement test used at over 1,500 institutions. ACCUPLACER uses adaptive technology to tailor the test to your skill level by increasing or decreasing the question difficulty based on your responses to previous questions. You may take ACCUPLACER up to 2 times within a 12 month period.
- The **Residual ACT** (<http://www.weber.edu/TestingCenter/act.html>) is the same as the National ACT but is limited to students who will be attending WSU as score reports cannot be sent to other universities. Allotted testing time between Residual ACT testing is 60 days.

## Wondering which exam to take?

- **If you expect to place into MATH 1030 or higher**, you can choose between ALEKS, ACCUPLACER, or the Residual ACT.
- **If you expect to place into MATH 1010 or lower**, take ALEKS.

Level	WSU Course Placement	Placement Criterion			
		Rubric	ALEKS	Math ACT	Math ACCUPLACER
0	No current placement	No scores; see your academic advisor for options			
1	MATH 0950	0.0 - 19.9	0 - 13	--	--
2	MATH 0970 or MATH 0990	20.0 - 21.9	14 - 29	--	--
3	MATH 1010	22.0 - 23.2	30 - 45	21 or higher	--
4	MATH 1030 (QL) or MATH 1040 (QL) or MATH 2010	--	46 - 100	21 or higher	CLM 20 - 49
5	MATH 1050 (QL)	--	55 - 100	23 or higher	CLM 50 - 69
	MATH 1060	--	55 - 100	23 or higher	CLM 50 - 69
	MATH 1080 (QL)	--	55 - 100	23 or higher	CLM 50 - 69
6	QL requirement satisfied	--	65 - 100	26 or higher	CLM 70 or higher
	MATH 1210	--	78 - 100	--	CLM 90 or higher

## Placement Expiration

Be aware that your placement can expire if you do not begin your math course within a certain period of time (see below). Enroll in math within your first year to avoid expiration and potential delays in your graduation.

### Placement Scores that Expire after 24 Months

- ALEKS scores
- ACCUPLACER scores
- Math ACT scores for placement into MATH 1030, 1040, 1050, 1080, or 2010 (after 24 months you can enroll in MATH 1010 or take a placement test)

## Placement Scores that Do Not Expire

- Rubric scores for MATH 0950-MATH 1010
- Math ACT score for placement into MATH 1010
- Any placement score that satisfies the Quantitative Literacy (QL) requirement (Note: While these scores will always satisfy the QL requirement, the score will expire as a prerequisite for higher-level math courses after 24 months)

## Placement and Completing your Quantitative Literacy (QL) Requirement

Your placement indicates where you need to begin in one of the following Math sequences to fulfill your QL requirement. Check with your college advisor if you are not sure which sequence and/or QL course is most appropriate for your major.

- MATH 0950 → MATH 0990 → MATH 1010 → any MATH QL course or
- MATH 0950 → MATH 0970 → MATH 1010 → any MATH QL course or
- MATH 0950 → MATH 0970 → MATH 1030 or 1040
- MATH 0950 → MATH 0990 → MATH 1010 → MATH 2010 → MATH 2015 → MATH 2020 (for elementary education majors) or
- MATH 0950 → MATH 0970 → MATH 2010 → MATH 2015 → MATH 2020 (for elementary education majors)

Once you pass a prerequisite math course, the course is valid for 24 months before it expires as a prerequisite. Some math courses are offered in several formats. Visit the Developmental Math website for more information about selecting the best format for your major and learning style.

To satisfy the QL requirement you must complete one of the following:

- Earn a "C" or better in MATH 1030, 1040, 1050, 1080, 2020 or
- Earn a "C" or better in any math course for which either MATH 1050 or 1080 is a prerequisite or
- Score 3 or higher on AP Calculus exam or
- Score 3 or higher on AP Statistics exam or
- Score 70 or higher on ACCUPLACER College Level Math (CLM) or
- Score of 26 or higher on Math ACT or
- Score of 65 or higher on ALEKS

## Questions about Placement?

- For questions regarding placement into MATH 0950, 0970, 0990, and 1010; contact the Developmental Math Advisor ([weber.edu/developmentalmath](http://weber.edu/developmentalmath) or 801-626-7451).
- For questions regarding placement into QL courses, contact the Math Department (801-626-6095).

## English Placement

Your English placement is based on your ACT or ACCUPLACER scores (if you took the SAT, your scores will be converted to an equivalent score). If you did not take the ACT, you should take the Reading Comprehension and Sentence Skills ACCUPLACER tests to obtain your placement. Non-native English speakers should contact the Learning English for Academic Purposes (LEAP) Program (801-626-6028) for placement testing.

Level	WSU Course Placement	Placement Criterion	
		ACT English (E) & Reading (R)	ACCUPLACER Sentence Skills (SS) & Reading Comprehension (RC)
0	No current placement	No scores; see your academic advisor for options	
1	ENGL 0900	12 or lower in either E or R	39 or lower in either SS or RC
2	ENGL 0955	13 - 16 in either E or R	40 - 89 in either SS or RC
3	ENGL 1010	17 or higher in both E and R	90 or higher in both SS or RC
4	ENGL 2010	29 or higher in both E and R	--
5	Composition requirement satisfied	--	--

### Placement Test

Weber State offers ACCUPLACER for students who do not have English placement or would like to challenge their initial placement. ACCUPLACER is a placement test used at over 1,500 institutions. ACCUPLACER uses adaptive technology to tailor the test to your skill level by increasing or decreasing the question difficulty based on your responses to previous questions. You may take ACCUPLACER up to 2 times within a 12 month period. See the Testing Center website for fee and test administration information.

### Placement Expiration

ACT scores expire after 48 months for English placement. ACCUPLACER scores expire after 24 months.

### Placement and Completing your Composition Requirement

Your placement indicates where you need to begin in one of the following English sequences to fulfill your Composition requirement.

- ENGL 0900 → ENGL 0955 → ENGL 1010 → ENGL 2010 or
- ESL courses → ENGL 1010 → ENGL 2010 (for non-native English speakers)

To satisfy your Composition requirement, you must earn a "C" or better in ENGL 2010. Some Associate of Applied Science (AAS) degrees only require successful completion of ENGL 1010.

### Questions about Placement?

Contact the English Department (801-626-6251) with questions regarding English course placement.

## **AMERICAN INSTITUTIONS (AI) 3-6 credit hours**

Select one of the following options and earn a "C" or better:

- POLS 1100 AI - American National Government (3) OR HIST 1700 AI - American Civilization (3) OR ECON 1740 AI - Economic History of the United States (3)
- HIST 2700 - History of the United States to 1877 (3) AND HIST 2710 - History of the United States since 1877 (3) (recommended for history majors)
- Present advanced placement credit in American History or American Government
- Present suitable transfer courses from other institutions

## **INFORMATION LITERACY (IL) 1.0 credit**

Successful completion can be met by receiving a credit grade on a proficiency exam or taking one of the courses with a "C" grade or better. Exams are credit/no credit, courses vary. Students should check with their Major Adviser to determine the best way to meet the information literacy requirement. More information is also available at: [http://library.weber.edu/researchandteaching/information\\_literacy](http://library.weber.edu/researchandteaching/information_literacy) or by contacting the IL Administrator at 801-626-7068 or [infolit@weber.edu](mailto:infolit@weber.edu).

- LIBS 1504 - Information Literacy Competency Exam OR LIBS 1704 - Information Navigator OR LIBS 2504 - Information Resources in History OR LIBS 2604 - Information Resources in Education OR EDUC 2604 - Information Resources in Education OR LIBS 2704 - Information Resources in the Business Disciplines OR BSAD 2704 - Information Resources in the Business Disciplines OR LIBS 2804 - Information Resources in the Social Sciences OR LIBS 2904 - Information Resources in the Health Professions OR HTHS 2904 - Information Resources in the Health Professions.

Note: Information Literacy (IL) transfer credit that does not automatically transfer from another college or university will be evaluated on an individual basis. Transfer credit must meet the current WSU IL requirements, have been taken within the last seven years, and passed with a grade of "C" or above.

## **DIVERSITY**

Complete one of the following general education courses and earn a passing grade. Note: the following courses will meet both a breadth and diversity requirement (see courses marked with a "♦" in the Breadth requirements).

- ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**
- ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**
- ANTH 1040 HU/DV - Language and Culture **Credits: (3)**
- ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)**
- CHF 2400 SS/DV - Family Relations **Credits: (3)**
- DANC 1010 CA/DV - Introduction to Dance **Credits: (3)**
- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 2230 HU/DV - Introduction to Drama **Credits: (3)**
- ENGL 2240 HU/DV - Introduction to Poetry **Credits: (3)**
- ENGL 2510 HU/DV - Masterpieces of Literature **Credits: (3)**
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**
- HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**
- HNRS 2130 HU/SS/DV - Intellectual Traditions: Great Ideas of the East **Credits: (3)**

- MUSC 1040 CA/DV - Music of World Cultures **Credits: (3)**
  - POLS 2500 SS/DV - Human Rights in the World **Credits: (3)** \*
  - SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)**
  - SOC 1020 SS/DV - Social Problems **Credits: (3)**
  - SW 2200 SS/DV - Issues in Diversity **Credits: (3)**
  - WGS 1500 SS/DV - Introduction to Women and Gender Studies **Credits: (3)**
  - WGS 2500 SS/DV - Human Rights in the World **Credits: (3)** \*
- \* POLS SS/DV 2500 and WGS SS/DV 2500 are cross-listed courses and only one may be used to fulfill Social Science or Diversity.

## **BREADTH GENERAL EDUCATION REQUIREMENTS**

**DO NOT DUPLICATE DEPARTMENTS:** *Courses selected to fulfill breadth requirements must each be from a different program, with the exception of Honors.*

### **HUMANITIES & CREATIVE ARTS**

**Associate of Arts, Associate of Science, Bachelor of Arts, Bachelor of Science, Bachelor of Music, Bachelor of Fine Arts, or Bachelor of Integrated Studies:** Select nine (9) credit hours - at least three (3) credit hours from Humanities and at least three (3) credit hours from Creative Arts and earn a passing grade.

**Associate of Applied Science:** Select three (3) credit hours from Humanities or Creative Arts and earn a passing grade

### **HUMANITIES**

#### Anthropology

- ANTH 1040 HU/DV - Language and Culture **Credits: (3)** ♦

#### Communication

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

#### English

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)** ♦
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)** ♦
- ENGL 2230 HU/DV - Introduction to Drama **Credits: (3)** ♦
- ENGL 2240 HU/DV - Introduction to Poetry **Credits: (3)** ♦
- ENGL 2510 HU/DV - Masterpieces of Literature **Credits: (3)** ♦
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)** ♦
- ENGL 2750 HU - Topics and Ideas in the Humanities **Credits: (3)**
- ENGL 3500 HU - Introduction to Shakespeare **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)** ♦

- ENGL 3520 HU - Literature of the Natural World **Credits: (3)**
- ENGL 3750 HU - Topics and Ideas in Literature **Credits: (3)**

#### Foreign Language

- FL 2851 HU - Study Abroad **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**
- FL 2600 HU - Introduction to Cultural and Literary Studies in Translation **Credits: (3)**

#### Honors

- HNRS 1110 HU - Introduction to Honors: The Construction of Knowledge **Credits: (3)**
- HNRS 1540 HU - Perspectives in the Humanities **Credits: (3)**
- HNRS 2010 HU - Exploring Key Concepts in the Disciplines: Humanities **Credits: (3)**
- HNRS 2110 HU/SS - Intellectual Traditions: Great Ideas of the West in the Classical and Medieval Eras **Credits: (3)**
- HNRS 2120 HU/SS - Intellectual Traditions: Great Ideas of the West in the Modern Era **Credits: (3)**
- HNRS 2130 HU/SS/DV - Intellectual Traditions: Great Ideas of the East **Credits: (3) ♦**

#### Music

- MUSC 1043 HU - Music, the Arts & Civilizations **Credits: (3)**

#### Philosophy

- PHIL 1000 HU - Introduction to Philosophy **Credits: (3)**
- PHIL 1120 HU - Contemporary Moral Problems **Credits: (3)**
- PHIL 1250 HU - Critical Thinking **Credits: (3)**

#### Theatre

- THEA 3323 HU - History and Literature of Contemporary Theatre **Credits: (3)**
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### **CREATIVE ARTS**

#### Art

*Only one course from either ART or ARTH may be used to fulfill Creative Arts.*

- ART 1010 CA - Introduction to the Visual Arts **Credits: (3)**
- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**

#### Computer Science

- CS 1010 CA - Introduction to Interactive Entertainment **Credits: (3)**

## Dance

- DANC 1010 CA/DV - Introduction to Dance **Credits: (3) ♦**

## English

- ENGL 2250 CA - CW: Introduction to Creative Writing **Credits: (3)**
- ENGL 2260 CA - CW: Introduction to Writing Short Fiction **Credits: (3)**
- ENGL 2270 CA - CW: Introduction to Writing Poetry **Credits: (3)**

## Honors

- HNRS 1530 CA - Perspectives in the Creative Arts **Credits: (3)**
- HNRS 2020 CA - Exploring Key Concepts in the Disciplines: Creative Arts **Credits: (3)**

## Interior Design

- IDT 1010 CA - Introduction to Interior Design **Credits: (3)**

## Music

- MUSC 1010 CA - Introduction to Music **Credits: (3)**
- MUSC 1030 CA - Introduction to Jazz **Credits: (3)**
- MUSC 1033 CA - Introduction to American Music **Credits: (3)**
- MUSC 1035 CA - History of Rock and Roll **Credits: (3)**
- MUSC 1040 CA/DV - Music of World Cultures **Credits: (3) ♦**
- MUSC 1063 CA - Music in Religion **Credits: (3)**

## Theatre

- THEA 1013 CA - Introduction to Theatre **Credits: (3)**
- THEA 1023 CA - Introduction to Film **Credits: (3)**
- THEA 1033 CA - Introduction to Acting **Credits: (3)**
- THEA 1043 CA - Introduction to American Musical Theatre **Credits: (3)**
- THEA 1053 CA - Introduction to Technical Production **Credits: (3)**
- 

## **SOCIAL SCIENCES**

**Associate of Arts, Associate of Science, Bachelor of Arts, Bachelor of Science, Bachelor of Music, Bachelor of Fine Arts, or Bachelor of Integrated Studies:** Select six (6) credit hours in addition to the American Institutions requirement and earn a passing grade.

**Associate of Applied Science:** Select three (3) credit hours and earn a passing grade.

## **SOCIAL SCIENCES**

### Anthropology

- ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3) ♦**
- ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3) ♦**

- ANTH 2030 SS - Principles of Archaeology **Credits: (3)**

#### Child and Family Studies

- CHF 1500 SS/DV - Human Development **Credits: (3) ♦**
- CHF 2400 SS/DV - Family Relations **Credits: (3) ♦**

#### Criminal Justice

- CJ 1010 SS - Introduction to Criminal Justice **Credits: (3)**

#### Economics

- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- ECON 1100 SS - Environmental Issues and Economic Policy **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**

#### Engineering Technology and Culture

- ETC 2001 SS - Engineering Culture **Credits: (3)**

#### Geography

- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3) ♦**
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3) ♦**

#### Gerontology

- GERT 1010 SS - Introduction to Gerontology **Credits: (3)**

#### Health Education

- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)**

#### History

- HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**
- HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3) ♦**

#### Honors

- HNRS 1520 SS - Perspectives in the Social Sciences **Credits: (3)**
- HNRS 2050 SS - Exploring Key Concepts in the Disciplines: Social Science **Credits: (3)**
- HNRS 2110 HU/SS - Intellectual Traditions: Great Ideas of the West in the Classical and Medieval Eras **Credits: (3)**
- HNRS 2120 HU/SS - Intellectual Traditions: Great Ideas of the West in the Modern Era **Credits: (3)**
- HNRS 2130 HU/SS/DV - Intellectual Traditions: Great Ideas of the East **Credits: (3) ♦**

### Management Information Systems

- MIS 1100 SS - The Digital Society **Credits: (3)**

### Physical Education Professional

- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**

### Political Science

- POLS 1520 SS - Leadership and Political Life **Credits: (3)**
- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**
- POLS 2500 SS/DV - Human Rights in the World **Credits: (3) ♦ \***

### Psychology

- PSY 1010 SS - Introductory Psychology **Credits: (3)**
- PSY 2000 SS - The Psychology of Human Relationships **Credits: (3)**

### Social Work

- SW 1010 SS - Introduction to Generalist Social Work **Credits: (3)**
- SW 2100 SS - Human Behavior and the Social Environment I **Credits: (3)**
- SW 2200 SS/DV - Issues in Diversity **Credits: (3) ♦**

### Sociology

- SOC 1010 SS/DV - Introduction to Sociology **Credits: (3) ♦**
- SOC 1020 SS/DV - Social Problems **Credits: (3) ♦**

### Women & Gender Studies

- WGS 1500 SS/DV - Introduction to Women and Gender Studies **Credits: (3) ♦**
- WGS 2500 SS/DV - Human Rights in the World **Credits: (3) ♦ \***
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- \* POLS SS/DV 2500 and WGS SS/DV 2500 are cross-listed courses and only one may be used to fulfill Social Science or Diversity.

## **PHYSICAL SCIENCES & LIFE SCIENCES**

**Associate of Arts, Associate of Science, Bachelor of Arts, Bachelor of Science, Bachelor of Music, Bachelor of Fine Arts, or Bachelor of Integrated Studies:** Select nine (9) credit hours - at least three (3) credit hours from Physical Sciences and at least three (3) credit hours from Life Sciences and earn a passing grade.

**Associate of Applied Science:** Select three (3) credit hours from Physical or Life Sciences and earn a passing grade

## PHYSICAL SCIENCES

### Chemistry

- CHEM 1010 PS - Introductory Chemistry **Credits: (3)**
- CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)**
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3) \***

### Geography \*\*\*

- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEOG 1500 PS - The Science of Global Warming: Myths, Realities and Solutions **Credits: (3)**

### Geosciences\*\*\*

- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1060 PS - Environmental Geosciences **Credits: (3)**
- GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**
- GEO 1130 PS - Introduction to Meteorology **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**

### Honors

- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- HNRS 2030 PS - Exploring Key Concepts in the Disciplines: Physical Sciences **Credits: (3)**

### Physics

- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- PHYS 1040 PS - Elementary Astronomy **Credits: (3)** (*cross listed with ASTR PS1040*) \*\*
- PHYS 1360 PS - Principles of Physical Science **Credits: (3) \***
- PHYS 2010 PS - College Physics I **Credits: (5)**
- PHYS 2040 PS - Principles of Observational Astronomy **Credits: (3)** (*cross listed with ASTR PS2040*) \*\*
- PHYS 2090 PS - Environmental Physics - Energy and Power **Credits: (3)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
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- \* Only one Principles of Physical Science (CHEM/PHYS 1360) may be used to fulfill Physical Sciences.

\*\* Only one course from either PHYS or ASTR may be used to fulfill Physical Sciences.

\*\*\* Only one course from either GEOG or GEO may be used to fulfill Physical Sciences.

## LIFE SCIENCES

### Anthropology

- ANTH 1020 LS/DV - Biological Anthropology **Credits: (3) ♦**

### Botany

- BTNY 1203 LS - Plant Biology **Credits: (3)**
- BTNY 1303 LS - Plants in Human Affairs **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)** \*
- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**

### Health Sciences

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**

### Honors

- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- HNRS 2040 LS - Exploring Key Concepts in the Disciplines: Life Sciences **Credits: (3)**

### Microbiology

- MICR 1113 LS - Introductory Microbiology **Credits: (3)**
- MICR 1153 LS - Elementary Public Health **Credits: (3)**
- MICR 1370 LS - Principles of Life Science **Credits: (3)** \*
- MICR 2054 LS - Principles of Microbiology **Credits: (4)**

### Nutrition

- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**

### Zoology

- ZOO 1010 LS - Animal Biology **Credits: (3)**
- ZOO 1020 LS - Human Biology **Credits: (3)**
- ZOO 1030 LS - The Nature of Sex **Credits: (3)**
- ZOO 1110 LS - Principles of Zoology **Credits: (4)**
- ZOO 1370 LS - Principles of Life Science **Credits: (3)** \*
- ZOO 2200 LS - Human Physiology **Credits: (4)**

\* Only one Principles of Life Science (BTNY/MICR/ZOO 1370) may be used to fulfill Life Sciences.

## **WSU PROGRAM COURSES**

WSU courses are interdisciplinary, variable (3-5) credit, team-taught and limited enrollment courses that satisfy requirements in two areas (core or breadth) of general education (with passing grade).

*\*Students may take as many WSU courses as they wish, but only the non-overlapping GE attributes from subsequent WSU courses will count toward GE requirements.*

- WSU 1450 CA/HU - Perspectives in Creative Arts and Humanities **Credits: (3-5)**
- WSU 1460 SS/CA - Perspectives in Social Science and Creative Arts **Credits: (3-5)**
- WSU 1470 PS/CA - Perspectives in Physical Sciences and Creative Arts **Credits: (3-5)**
- WSU 1480 CA/LS - Perspectives in Creative Arts and Life Sciences **Credits: (3-5)**
- WSU 1560 SS/HU - Perspectives in Social Science and Humanities **Credits: (3-5)**

- WSU 1570 PS/HU - Perspectives in Physical Sciences and Humanities **Credits: (3-5)**
- WSU 1580 HU/LS - Perspectives in Humanities and Life Sciences **Credits: (3-5)**
- WSU 1670 SS/PS - Perspectives in Social Science and Physical Science **Credits: (3-5)**
- WSU 1680 SS/LS - Perspectives in Social Science and Life Science **Credits: (3-5)**
- WSU 1780 PS/LS - Perspectives in Physical Sciences and Life Sciences **Credits: (3-5)**
- WSU 2120 EN/AI - Perspectives in Composition and American Institutions **Credits: (3-5)**
- WSU 2130 EN/QL - Perspectives in Composition and Quantitative Literacy **Credits: (3-5)**
- WSU 2140 EN/CA - Perspectives in Composition and Creative Arts **Credits: (3-5)**
- WSU 2150 EN/HU - Perspectives in Composition and Humanities **Credits: (3-5)**
- WSU 2160 EN/SS - Perspectives in Composition and Social Sciences **Credits: (3-5)**
- WSU 2170 EN/PS - Perspectives in Composition and Physical Sciences **Credits: (3-5)**
- WSU 2180 EN/LS - Perspectives in Composition and Life Sciences **Credits: (3-5)**
- WSU 2230 AI/QL - Perspectives in American Institutions and Quantitative Literacy **Credits: (3-5)**
- WSU 2240 AI/CA - Perspectives in American Institutions and Creative Arts **Credits: (3-5)**
- WSU 2250 AI/HU - Perspectives in American Institutions and Humanities **Credits: (3-5)**
- WSU 2260 AI/SS - Perspectives in American Institutions and Social Science **Credits: (3-5)**
- WSU 2270 AI/PS - Perspectives in American Institutions and Physical Sciences **Credits: (3-5)**
- WSU 2280 AI/LS - Perspectives in American Institutions and Life Sciences **Credits: (3-5)**
- WSU 2340 QL/CA - Perspectives in Quantitative Literacy and Creative Arts **Credits: (3-5)**
- WSU 2350 QL/HU - Perspectives in Quantitative Literacy and Humanities **Credits: (3-5)**
- WSU 2360 QL/LS - Perspectives in Quantitative Literacy and Life Sciences **Credits: (3-5)**
- WSU 2370 QL/PS - Perspectives in Quantitative Literacy and Physical Sciences **Credits: (3-5)**
- WSU 2380 QL/SS - Perspectives in Quantitative Literacy and Social Science **Credits: (3-5)**
- WSU 2420 PS/SS - Perspectives in Social Science and Physical Sciences **Credits: (3-5)**

### **AP, CLEP and Transfer Credit**

*General education requirements may also be satisfied by:*

#### **AP Credit**

Students who have completed advanced placement courses in high school and passed the Education Testing Service examination with acceptable scores (3, 4, or 5) may be granted WSU credit hours for each, and will be given general education credit in the appropriate category. (Refer to the Credit by Examination or Petition section and/or contact the Admissions Office for more information.)

#### **International Baccalaureate Credit (IB)**

Students who have completed International Baccalaureate courses in high school and passed the corresponding Higher-Level or Diploma examinations may be granted WSU credit hours for each, and will be given general education credit in the appropriate category. (Refer to the Credit by Examination or Petition section and/or contact the Admissions Office for more information.)

#### **CLEP Credit**

All students are eligible to take the CLEP (College Level Examination Program) battery which, if passed satisfactorily, may satisfy most of the general area requirements. (Refer to the Credit by Examination or Petition section and/or contact the Admissions Office for more information.)

## Transfer Credit

Weber State University accepts transfer credit from regionally accredited colleges and universities. Associate of Arts (AA) and Associate of Science (AS) degrees earned at any higher education institution accredited by one of the following six regional accrediting associations (recognized by the U.S. Department of Education) will satisfy all general education core and breadth requirements provided the granting institution was regionally accredited at the time the degree was awarded.

- North Central Association Commission on Accreditation and School Improvement
- New England Association of Schools and Colleges
- Middle States Association of Schools and Colleges
- Southern Association of Schools and Colleges
- Western Association of Schools and Colleges
- Northwest Association of Schools and Colleges

For students who are transferring from a non-regionally accredited institution, please refer to Credit by Examination or Petition.

Contact the Transfer Admissions Advisement Office for more information (see Transfer Advisement).

# College of Engineering, Applied Science & Technology

## Dr. David L. Ferro, Dean

**College Mission Statement:** The primary goal of the College of Engineering, Applied Science & Technology is to implement the mission of Weber State University and to prepare students for employment upon graduation by ensuring that they are productive, accountable, and responsible individuals able to function effectively in today's workplace. This goal is achieved by developing in students a cohesive, solid theoretical foundation bolstered by practical, hands-on experiences. The learning environment is further enhanced by extensive contact between faculty and students both in and out of the classroom. In addition, the liberal education component present in all programs equips students for lifelong learning in a changing world.

**College Vision Statement:** The vision of the College of Engineering, Applied Science & Technology is to be the leader in the State in technology and technology related programs through service to our students and the businesses and industries in our region. The mission of the College is to serve the State of Utah by

- Preparing students for employment upon graduation and ensuring that they are productive, accountable, and responsible individuals able to function effectively in today's workplace.
- Engaging in scholarly activities that expand the technological education our students receive and providing a service to business and industry.
- Utilizing the College's resources and faculty expertise to benefit students, business, industry, education, government, and society in general.

## College Advisors:

*Pat DeJong*, [patriciadelong@weber.edu](mailto:patriciadelong@weber.edu), 801-626-6318, TE 110C (Computer Science, Network Management Technology, Web & User Experience)

*Dr. Steven Eichmeier*, [seichmeier@weber.edu](mailto:seichmeier@weber.edu), 801-626-7595, TE 101B (Professional Sales)

*Rainie Ingram*, ringram@weber.edu, 801-626-7785, ET 110A (Apprenticeship, Computer Engineering, Construction Management Technology, Electrical Engineering, Interior Design Technology, Pre-Engineering)

*Diana Meiser*, dmeiser@weber.edu, 801-626- 6369, ET 218F (Design Engineering Technology, General Technology, Electronics Engineering Technology, Manufacturing Engineering Technology, Mechanical Engineering Technology)

*Jessica Slater*, jessicarees@weber.edu, 801-626-6577, TE 201B (Automotive Technology)

**College Office Contact:** Gina Naisbitt, rnaisbitt@weber.edu, 801-626-6303, Engineering Technology Building 110

### **Department Chairs**

Automotive Technology: Scott Hadzik	801-626-6579
Construction Management Technology: Joseph Wolfe	801-395-3427
Engineering: Kirk D. Hagen	801-626-6898
Engineering Technology: George Comber	801-626-6305
Professional Sales: Blake Nielson	801-626-6913
School of Computing: Brian Rague	801-626-7929

### **The Alan E. Hall Center for Sales Excellence**

**Director:** Mikelle Barberi-Weil

**Location:** TE 101 **Telephone:** 801-626-6913 or 801-626-6970 **Email:** mikellebarberi@weber.edu

The Alan E. Hall Center for Sales Excellence was established in 2013 through a grant funded by the Alan and Jeanne Hall Foundation to promote and explore sales excellence by collaboratively engaging academic and industry sales experts. The Center for Sales Excellence is the nexus of a community of learners and benefactors in sales expertise. It develops sales curricula and instruction for private and public institutions, creates online resources for sales, partners with industry to augment industry-specific sales skill-sets, promotes the development of improved sales technology and theory-based techniques, and links sales students with experienced sales professionals and organizations.

### **The National Center for Automotive Science and Technology**

**Director:** Joe Thomas

**Location:** TE 201 **Telephone:** 801-626-7836 **Email:** jthomas7@weber.edu

The Center for Automotive Science and Technology was established in 1997 to assist in developing a better understanding of vehicle emissions among academic, regulatory, and private sector entities, both locally and nationally. To do this, the Center provides training to automotive technicians, instructors, regulatory officials, field engineers, and consumer groups as well as doing applied research on vehicular emissions. Additionally, the Center gathers and disseminates information about the impact of emissions, design for emission abatement, and efficiency of vehicles. The Center is a cooperative endeavor of the University, the Utah Department of Environmental Quality, and multiple private companies.

### **Computer Literacy Center**

**Director:** Thomas Bell

**Administrative Specialist:** Angie Christensen

**Location:** EH 311 **Telephone:** 801-626-7384 **Web:** weber.edu/clc

**Email:** angelachristensen@weber.edu

The Computer Literacy Center is a university-wide student learning center established to ensure all students achieve the computational literacy necessary to succeed in university coursework, academic research, and the workplace of the future. Entering and continuing WSU students possess widely varying levels of experience and knowledge about computer applications and operation. The CLC is designed to support students from all backgrounds to attain levels of computer competency appropriate to their specific academic needs. The CLC also offers instructional support on advanced topics to prepare students for upper division courses and research investigations, and represents a key resource to ensure student competency in computer applications specifically defined by faculty to support university courses instructed by those faculty.

### **The Concept Center**

**Director:** Taylor Foss

**Location:** TE 219 **Telephone:** 801-626-6400 **Email:** [weber.edu/east/concept](mailto:weber.edu/east/concept)

The Concept Center is an innovative engineering research and design think tank that brings skilled students, experienced faculty, and local companies together on engineering research, product development, and design. The Concept Center at Weber State University is here to provide the engineering expertise needed to help established businesses improve production processes, assist small tech-based startups with a potentially valuable patent, and assist individuals to move great ideas forward. The Concept Center participants get low cost, creative, and effective solutions; and WSU students and faculty gain valuable experience.

### **Center for Technology Outreach**

**Directors:** Dana Dellinger and Luke Fernandez

**Location:** M3 **Telephone:** 801-626-7552 **Email:** [danadellinger@weber.edu](mailto:danadellinger@weber.edu) & [lfernandez@weber.edu](mailto:lfernandez@weber.edu)

The College of Engineering, Applied Science & Technology values our role in providing a variety of engaging, fun, and instructive outreach programs. Through the Center for Technology Outreach we strive to reach out to students and community members of all ages through our Speaker Series and K-12 Programs.

The Speaker Series features interesting and informative voices from the expansive field of technology experts in Utah and around the US. Participants are intellectually enriched by the insight, understanding, and knowledge of people such as internet expert Radia Perlman, author Matt Richtel, and computer programmer and activist Richard Stallman. The Speaker Series is open to the public and all are welcome.

Encouraging, supporting and providing Science, Technology, Engineering and Math (STEM) opportunities to K-12 students is an important and valued component of our service to the community. The scope of our K-12 Outreach is multi-layered.

- *Introduction and Awareness:* Short-term events to build interest and awareness in technology such as Parent/Daughter Engineering Day, Family Engineering Day, and STEM Fests & Expo's.
- *Engage and Experience:* Programs designed to engage students in more committed STEM activities and increase their confidence and interest in pursuing STEM related majors and careers. These include, FIRST Tech Challenge Robotics, FIRST LEGO League, Seaperch Underwater Robotics, Engineering and Technology Summer Camps, and more.
- *Educate and Support:* In-depth academic enrichment, designed with the goal of impacting the long-term education and career pathways of students. WSU PREP and Project Lead the Way both highlight the college's long-term investment in K-12 education and Utah's youth.

# Master of Science in Computer Engineering (MSCE)

- **Grade Requirements:** An MSCE student must complete all program courses, including electives, with a grade of "B-" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hour Requirements:** The program requires a minimum of 30 semester hours beyond a bachelor's degree in computer engineering.

*Once enrolled, a student must register for at least one MSCE course each semester, excepting summers, until graduation. Students who fail to do so must petition for readmission into the program.*

## Admissions Requirements

Applicants for admission into the Master of Science in Computer Engineering program must possess a bachelor's degree or be in the final stage of completing the degree. An overall GPA of 3.0 is required from the undergraduate program in which the bachelor's degree is earned.

Applicants will submit:

- Completed application
- Current resume
- Official transcripts from every institution of higher education attended
- Scores from the GRE
- Contact information for three references, at least one from a professional context and one from an academic context

## Additional Admission Requirements for International Students

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL) or International Language Testing System (IELTS) which is not more than two years old. Applicants are required to have an internet-based TOEFL score of 79 (with a minimum of 17 in each category) or a minimum IELTS score of 6.5.

## Application

The application for admission to the Master of Science in Computer Engineering program must be submitted online. Official transcripts from each institution of higher education attended and all test scores must be sent directly to the WSU Department of Engineering.

Deadlines for application are the first Friday in November for students enrolling in spring semester and the first Friday in May for students enrolling in fall semester. Completed applications are considered by the Admissions Committee after each application deadline

## Advisement

For questions concerning academic advisement, the primary source of contact is the program director. Students should meet with the director at least once a year while enrolled. For issues regarding registration and scheduling, students should contact either the Administrative Specialist for the Department of Engineering or the Administrative Specialist for the School of Computing.

## Leveling Courses

After being accepted, students who have not graduated from an ABET accredited Computer Engineering program must demonstrate the ability to pass the following courses:

- CS 2420 - Data Structures and Algorithms **Credits: (4)**
- CS 2810 - Computer Architecture **Credits: (4)**
- ECE 3110 - Microelectronic I **Credits: (4)**
- ECE 3210 - Signals and Systems **Credits: (4)**
- ECE 3610 - Digital Systems **Credits: (4)**
- MATH 3410 - Probability and Statistics **Credits: (3)**
- MATH 2250 - Linear Algebra and Differential Equations **Credits: (4)** OR BOTH
- MATH 2270 - Elementary Linear Algebra **Credits: (3)** AND
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**

## **Course Requirements for MSCE**

### **Required Courses (12 credit hours):**

- ECE 6110 - Digital VLSI Design **Credits: (3)**
- ECE 6210 - Digital Signal Processing **Credits: (3)**
- CS 6420 - Advanced Algorithms **Credits: (3)**
- CS 6610 - Computer Architecture **Credits: (3)**

### **Elective Courses (4 courses required, 12-16 credit hours):**

- ECE 6130 - Advanced Semiconductor Devices **Credits: (3)**
- ECE 6220 - Image Processing **Credits: (3)**
- ECE 6410 - Communication Circuits and Systems **Credits: (3)**
- ECE 6420 - Digital Communication **Credits: (3)**
- ECE 6620 - Digital System Testing **Credits: (4)**
- ECE 6710 - Real-Time Embedded Systems **Credits: (4)**
- ECE 6900 - Special Topics **Credits: (1-4)**
- CS 6100 - Distributed Operating Systems **Credits: (3)**
- CS 6500 - Artificial Intelligence and Neural Networks **Credits: (4)**
- CS 6600 - Machine Learning **Credits: (3)**
- CS 6740 - Computer Systems Security **Credits: (3)**
- CS 6820 - Compiler Design **Credits: (4)**
- CS 6840 - Formal System Design **Credits: (3)**
- CS 6850 - Parallel Programming and Architecture **Credits: (3)**

### **Thesis or Design Project (6 credit hours):**

MSCE Students are required to perform original research that results in a thesis or complete a substantial engineering design project. A total of 6 or more credits of ECE 6020 is required for a thesis. Similarly, a total of 6 or more credits of ECE 6010 is required for a project. Students must be enrolled in one of these courses at the time of their defense. The thesis or project report must meet formatting requirements and be submitted to the Engineering Department for approval prior to graduation.

- ECE 6010 - Design Project **Credits: (2-6)**
- ECE 6020 - Thesis **Credits: (2-6)**

# Department of Automotive Technology

**Department Chair:** Scott Hadzik

**Location:** Technical Education Building, Room 201

**Telephone Contract:** Jennifer Vesper 801-626-6579

**Program Advisor:** Jessica Slater 801-626-6577

**Department Web Site:** [weber.edu/automotive](http://weber.edu/automotive)

**Professor:** John Kelly; **Associate Professor:** Scott Hadzik; **Instructors:** Scott Holland, Blair Newbold, William Speigle

The Automotive Technology Department curriculum is a "2 + 2" design leading to an Associate of Applied Science degree in Automotive Service Technology and a Bachelor of Science degree in Automotive Technology.

## Chrysler Training Center

**Coordinator:** *Bryan Nelson*

**Telephone:** 801-626-7743

The Chrysler Training Center provides short, current product information courses for Chrysler technicians and service management personnel throughout Utah and several western states. The Center's resources are shared with a broader automotive community through activities such as automotive faculty development workshops.

## General Motors Training Center

**Coordinator:** *Scott Holland*

**Telephone:** 801-626-8763

The General Motors Training Center provides short, current product information courses for GM technicians and service management personnel throughout Utah and several western states. The Center's resources are shared with a broader automotive community through activities such as automotive faculty development workshops.

## Toyota Training Center

**Coordinator:** *William Carrol*

**Telephone:** 801-626-7743

The Toyota Training Center provides short, current product information courses for Toyota technicians and service management personnel throughout Utah and several western states. The Center's resources are shared with a broader automotive community through activities such as automotive faculty development workshops.

## Automotive Service Technology

Automotive Service Technology is a program offered under the Automotive Technology Department. Automotive Service Technology is the field of study dealing with diagnosis, service, and repair of automobiles and light trucks. Lab and classroom courses are oriented toward high levels of technical understanding, current developments such as electronic control systems and environmental issues, the development of the students' diagnostic capabilities, and proficiency with recommended service procedures. In addition to specific technical training, supporting courses provide for growth of interpersonal and other skills needed to advance within the automotive service industry.

There are three tracks available under the Automotive Service Technology Associate of Applied Science degree.

- General Motors Automotive Service Educational Program (ASEP) is a program with technical coverage specializing exclusively in current General Motors products.
- Automotive Technology Educational Program (ATEP) is a comprehensive training program covering all major manufacturers' products.

- Heavy Duty Truck Technology is an articulated program with Davis Applied Technology Center, specializing in current Mack and Volvo White products.

Additionally, an Institutional Certificate is offered that prepares students for entry level automotive technician positions in dealerships or at independent shops.

The Automotive Service Technology degree tracks are certified by the National Automotive Technicians Education Foundation (NATEF). Partnerships with four of the world's largest automotive corporations-Chrysler, Ford, General Motors and Toyota-assure direct access to state-of-the art automotive technology. To assure optimum functioning, individual program tracks may have limited enrollment. See department for details.

In addition to the above degree tracks, the Automotive program also has the manufacturer's training centers, listed above, located on campus allowing faculty and students access to the latest equipment, data, and vehicles.

### **Automotive Technology**

Automotive Technology is a program offered under the Automotive Technology Department. The baccalaureate degree in Automotive Technology is designed to prepare graduates for employment in a wide variety of automotive related industries including field service operations, fleet management, and technical support activities. It will also prepare them to advance in organizations such as:

- Original Equipment Manufacturers
- Aftermarket Management
- Service/Parts Management and Marketing
- Advanced Vehicle Systems Technical Research and Support.

To cover the broad range of knowledge and skills that these different organizations require, the degree has three different tracks. They are as follows:

- Field Service Operations
- Advanced Vehicle Systems

Automotive Technology graduates will be technically competent and possess strong interpersonal skills. They will have the ability to communicate effectively, be able to solve problems, work in teams, and will have developed an understanding of the need for continued professional development.

The Automotive Technology bachelor's degree is designed as a "2+2" program building upon associate degree graduates who have received a degree in automotive service technology, heavy duty truck technology, collision repair, diesel technology, or similar programs. Students who have completed their associate degrees in one of these programs will be admitted as juniors and can complete their baccalaureate degree within two years.

## **Automotive Service Technology (AAS)**

- **Grade Requirements:** Minimum grade of "C " in courses required for this major in addition to an overall GPA of 2.00 or higher.
- **Credit Hour Requirements:** A total of 63-67 credit hours is required.
- **Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see the program advisor for specific information regarding assessment.

## Advisement

Automotive Service students should meet each semester with the program advisor for their specific track. Call 801-626-6577 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Submit the online application to the program along with a copy of the applicants driving record. Submitting an application does not guarantee admission to the program. An applicant will be contacted by an advisor if they qualify for admittance into the program.

## National Institute for Automotive Service Excellence (ASE) Certification Requirement

Automotive Service students are required to take all eight automotive ASE exams. See <https://www.ase.com/Home.aspx> for testing information. ASE exam fees are included in the student fees for each course. **Only** Heavy Duty Truck Technology students will be exempt from this requirement.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. The following support courses required for this degree will also be applied toward general education requirements: CHEM 1010 (3) or CHEM 1110 (5), COMM 2110 (3), WEB 1700, a Social Science general education course (3), and a Humanities general education course (but not a second COMM course) (3).

## Major Course Requirements for AAS Degree

Support Courses Required for All Tracks (24 credit hours)

- CHEM 1010 PS - Introductory Chemistry **Credits: (3)** or
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
  
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- WEB 1700 - Introduction to Computer Applications **Credits: (3)**
  
- AUSV 1300 - Technical Mathematics **Credits: (3)** or
- MATH 1010 - Intermediate Algebra **Credits: (4)** or higher
  
- PS 3203 - Customer Service Techniques **Credits: (3)**
- Social Science General Education Course **(3)**
- Humanities General Education Course (Not Communication) (3)

Note:

*\* Students wishing to complete a Bachelor of Science (BS) in Automotive Technology after completing their Associate of Applied Science (AAS) degree should consider taking the courses marked with an asterisk.*

## Track Requirements

Select one of the following tracks (see the track coordinator for a suggested course sequence):

## General Motors ASEP Track

Automotive Service Courses Required (38 credit hours)

- AUSV 1000 - Introduction to Automotive Service **Credits: (2)**
- AUSV 1010 - Automotive Technology Orientation **Credits: (1)**
- AUSV 1041 - General Motors Braking Systems **Credits: (3)**
- AUSV 1042 - General Motors Steering and Suspension Systems **Credits: (3)**
- AUSV 2340 - General Motors Climate Control Systems **Credits: (3)**
- AUSV 1240 - General Motors Manual Drivetrain Systems **Credits: (3)**
- AUSV 1340 - General Motors Automotive Electronics **Credits: (4)**
- AUSV 2140 - General Motors Electrical and Body Control Systems **Credits: (3)**
- AUSV 2540 - General Motors Automatic Transmissions **Credits: (4)**
- AUSV 1140 - General Motors Engines **Credits: (3)**
- AUSV 2040 - General Motors Engine Control Systems **Credits: (3)**
- AUSV 2860 - Automotive Shop Practice **Credits: (3-8)**  
*two sections of 3 credit hours each*

## Independent Shop ATEP Track

Automotive Service Courses Required (41 credit hours)

- AUSV 1000 - Introduction to Automotive Service **Credits: (2)**
- AUSV 1010 - Automotive Technology Orientation **Credits: (1)**
- AUSV 1021 - Automotive Braking Systems 1 **Credits: (2)**
- AUSV 1023 - Automotive Braking Systems 2 **Credits: (2)**
- AUSV 1022 - Steering and Suspension Systems 1 **Credits: (2)**
- AUSV 1025 - Steering and Suspension Systems 2 **Credits: (2)**
- AUSV 2320 - Automotive Climate Control Systems **Credits: (3)**
- AUSV 1220 - Automotive Manual Drivetrain Systems **Credits: (3)**
- AUSV 1320 - Automotive Electronics 1 **Credits: (2)**
- AUSV 1323 - Automotive Electronics 2 **Credits: (2)**
- AUSV 1325 - Electrical Fundamentals 3 **Credits: (3)**
- AUSV 2520 - Automatic Transmissions **Credits: (4)**
- AUSV 1120 - Automotive Engines 1 **Credits: (2)**
- AUSV 1124 - Automotive Engines 2 **Credits: (2)**
- AUSV 2020 - Engine Control Systems **Credits: (3)**
- AUSV 2120 - Automotive Electrical and Body Control Systems **Credits: (3)**
- AUSV 2860 - Automotive Shop Practice **Credits: (3-8)**

## Heavy Duty Truck Track

Automotive Service Courses Required (39 credit hours)

- AUSV 1000 - Introduction to Automotive Service **Credits: (2)**
- AUSV 1010 - Automotive Technology Orientation **Credits: (1)**
- AUSV 1071 - H D Truck Brakes **Credits: (2)**
- AUSV 1072 - H D Truck Steering & Suspension **Credits: (3)**
- AUSV 1170 - H D Truck Engines **Credits: (5)**
- AUSV 1270 - H D Truck Drive Mechanisms **Credits: (8)**

- AUSV 1320 - Automotive Electronics 1 **Credits: (2)**
- AUSV 1323 - Automotive Electronics 2 **Credits: (2)**
- AUSV 1325 - Electrical Fundamentals 3 **Credits: (3)**
- AUSV 2170 - H D Truck Electrical Systems **Credits: (3)**
- AUSV 2270 - H D Truck Engine Diagnosis **Credits: (3)**
- AUSV 2370 - H D Truck Air Conditioning **Credits: (2)**
- AUSV 2860 - Automotive Shop Practice **Credits: (3-8)**

## Automotive Service Technology Certificate of Proficiency

*The Certificate of Proficiency in Automotive Service Technology prepares students for entry level automotive technician positions in repair shops.*

*For information call 801-626-6579*

- **Admission Requirements:** Submit the online application to the program along with a copy of the applicants driving record. Submitting an application does not guarantee admission to the program. An applicant will be contacted by an advisor if they qualify for admittance into the program.
- **Grade Requirements:** Students must receive a grade of C- or better in every course.
- **Credit Hour Requirements:** A total of 15 credit hours is required.

### Advisement

Automotive Technology students should meet annually with the program advisor for course and program advisement. Call Jessica Slater 801-626-6577 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Course Requirements for Automotive Service Technology Certificate of Proficiency

Automotive Service Courses Required (16 credit hours)

- AUSV 1000 - Introduction to Automotive Service **Credits: (2)**
- AUSV 1021 - Automotive Braking Systems 1 **Credits: (2)**
- AUSV 1022 - Steering and Suspension Systems 1 **Credits: (2)**
- AUSV 1120 - Automotive Engines 1 **Credits: (2)**
- AUSV 1320 - Automotive Electronics 1 **Credits: (2)**

Take two of the following courses

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- WEB 1700 - Introduction to Computer Applications **Credits: (3)**

# Automotive Technology (BS)

**Department Chairman:** Scott Hadzik, 801-626-7138

**Department Website:** [www.weber.edu/automotive](http://www.weber.edu/automotive)

- **Program Prerequisite:** An interview with the program coordinator is necessary prior to acceptance into the program. Students must provide evidence of completion of an Associate of Applied Science AAS or Associate of Science AS degree in automotive service technology or other related degree prior to entering upper division curriculum.
- **Minor:** Not required.
- **Grade Requirements:** Minimum grade of "C" in courses required for this major in addition to an overall GPA of 2.00 or higher.
- **Credit Hour Requirements:** A minimum of 125 to 126 credit hours is required depending upon the emphasis selected and what courses were taken as part of the associate degree. A minimum of 40 upper division credit hours is required (courses numbered 3000 and above).

## Advisement

Automotive Technology students should meet annually with the program advisor for course and program advisement. Call Jessica Slater 801-626-6577 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information) and meet with the program advisor.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following general education courses not taken as part of the associate degree will need to be taken as part of the bachelor's degree: MATH 1030 or higher, PHYS 1010, WEB 1700, CHEM 1010, SOC 1020, and COMM 2110.

## Major Course Requirements for BS Degree

Required Support Courses for all Emphases (15+ credit hours)

- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** (3 credit hours required)
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- ECON 1740 AI - Economic History of the United States **Credits: (3)**
  
- LIBS 1504 - Information Literacy Competency Exam **Credits: (1)** or
- LIBS 1704 - Information Navigator **Credits: (1)**

Note:

*The following general education courses not taken as part of the associate degree will need to be taken as part of the bachelor's degree: MATH 1030 or higher, PHYS 1010, WEB 1700, CHEM 1010, SOC 1020, and COMM 2110.*

## Field Service Operations Emphasis

*(Also available online)*

### Automotive Technology Courses Required (33 credit hours)

- ATTC 3000 - Introduction to Automotive Technology **Credits: (1)**
- ATTC 3020 - Introduction to Safety Management and Hazardous Materials **Credits: (3)**
- ATTC 3520 - Fleet Management **Credits: (3)**
- ATTC 3620 - Automotive Business Practices **Credits: (3)**
- ATTC 3760 - Advanced Automotive Technologies **Credits: (3)**
- ATTC 3880 - Cooperative Practicum **Credits: (3)**
- ATTC 4530 - Hybrid and Electric Vehicle Systems **Credits: (3)**
- ATTC 4540 - Automated Safety and Convenience Systems **Credits: (3)**
- ATTC 4550 - Advanced Automotive Emissions **Credits: (3)**
- ATTC 4710 - Capstone Research Methods **Credits: (2)**
- ATTC 4720 - Capstone Research and Development **Credits: (3)**
- ATTC 4860 - Automotive Standards, Laws, and Regulations **Credits: (3)**

### Support Courses Required (11 credit hours)

- WEB 3070 - Advanced Spreadsheet Applications **Credits: (1)**
- WEB 3090 - Digital Presentations **Credits: (2)**
- PS 3250 - Business Communication **Credits: (3)**
- PS 3702 - Developing Team Leadership Skills **Credits: (2)**

#### **Pick one from the following courses**

- PS 3203 - Customer Service Techniques **Credits: (3)**
- PS 3563 - Principles of Sales Supervision **Credits: (3)**
- PS 4203 - Ethical Sales and Service **Credits: (3)**

## Advanced Vehicle Systems Emphasis

### Automotive Technology Courses Required (27 credit hours)

- ATTC 3000 - Introduction to Automotive Technology **Credits: (1)**
- ATTC 3020 - Introduction to Safety Management and Hazardous Materials **Credits: (3)**
- ATTC 3260 - Advanced Electrical Systems **Credits: (3)**
- ATTC 3760 - Advanced Automotive Technologies **Credits: (3)**
- ATTC 3880 - Cooperative Practicum **Credits: (3)**
- ATTC 4560 - Advanced Propulsion Systems **Credits: (3)**
- ATTC 4710 - Capstone Research Methods **Credits: (2)**
- ATTC 4720 - Capstone Research and Development **Credits: (3)**
- ATTC 4760 - Alternate Fuel Systems **Credits: (3)**
- ATTC 4860 - Automotive Standards, Laws, and Regulations **Credits: (3)**

### Support Courses Required (18 credit hours)

- WEB 2080 - Database Applications **Credits: (1)**
- WEB 3070 - Advanced Spreadsheet Applications **Credits: (1)**
- WEB 3090 - Digital Presentations **Credits: (2)**

- PS 3250 - Business Communication **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**
- PS 3702 - Developing Team Leadership Skills **Credits: (2)**

**Pick one from the following courses**

- PS 3203 - Customer Service Techniques **Credits: (3)**
- PS 3563 - Principles of Sales Supervision **Credits: (3)**
- PS 4203 - Ethical Sales and Service **Credits: (3)**

## Automotive Technology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## School of Computing

**Department Chair:** Brian Rague

**Location:** Technical Education Building, Room 110

**Telephone Contact:** Ranee Dearden 801-626-7929

The School of Computing provides exceptional educational opportunities to students in the growing area of computing and computational systems. Students can explore diverse areas such as software engineering, mobile applications, programming languages, virtual reality, simulation science, game development, network technologies, network security, database development, multimedia applications, user interface/user experience, and web design and development. The College of Engineering, Applied Science & Technology offers AAS and BS degrees in the following computing programs:

- Computer Science
- Network Management Technology
- Web and User Experience

The BS degree in Computer Science is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>

Students must provide evidence of completion of an Associate of Applied Science AAS or Associate of Science AS degree in computing or other related degree prior to entering advanced upper division curriculum.

### Computer Science

**Program Coordinator:** Spencer Hilton

**Location:** Technical Education Building, Room 110

**Telephone Contact:** Ranee Dearden, 801-626-7929

**CS Program Advisor:** Pat DeJong, 801-626-6318

**Salt Lake Program Coordinator & Advisor:** Ted Cowan, 801-957-4769

**Davis Program Coordinator & Advisor:** Brad Peterson, 801-395-3465

**Professors:** Delroy Brinkerhoff, Brian Rague; **Associate Professors:** Richard Fry, Drew Weidman; **Assistant Professors:** Abdulmalek Al-Gahmi, Robert Ball, Linda DuHadway, Kyle Feuz, Garth Tuck, Hugo Valle, Yong Zhang;

**Instructors:** Ted Cowan, Luke Fernandez, Spencer Hilton, Joshua Jensen, Brad Peterson, Faith Satterthwaite, Cody Squadroni, Alison Sunderland

The Computer Science program offers an Associate of Applied Science Degree and a Bachelor of Science Degree in Computer Science. The nature of the curricula offers flexibility as a student may tailor their program of study to their interests and professional aspirations. The curricula is based on ABET suggested program outcomes and also provides a Customized Option for students seeking a second bachelor's degree or a minor in a different academic area. The program also offers a minor, a teaching minor, and a BIS concentration. A Game Development Certificate is also offered that consists of 15-16 credits that focus on game development and math and also requires a bachelor's degree in Computer Science to be completed as a pre or co-requisite.

The Computer Science program is a technical, scientific approach requiring a solid foundation in mathematics and physics. The program blends scientific and engineering principles implemented through actual, practical, and applications-oriented experience as well as the intellectual study of computing. It is designed to provide a sound fundamental understanding of logic and of digital computer organization as well as the interaction between hardware, software and the interconnection of system components. Also emphasized is software engineering which includes understanding operating systems and other software systems design including implementation of the theory of computing, analysis of algorithms, simulation, and knowledge-based systems. The objectives of the Computer Science program are to provide students with an education that will meet their academic and career goals as well as meeting the needs of local industries.

## **Network Management Technology**

**Program Coordinator:** Kyle Feuz

**Location:** Elizabeth Hall, Room 301

**Telephone Contact:** 801-626-6059

**NMT Program Advisors:** Kyle Feuz, Diana Green, Andy Drake

**Professors:** Diana Green, Allyson Saunders; **Instructors:** Andy Drake, AJ Helper, Matthew Paulson

The Network Management Technology program offers an Associate of Applied Science (AAS) Degree and a Bachelor of Science (BS) Degree in Network Management Technology, as well as a minor in Network Management Technology. Also offered are a Network Security Technology Certificate and a Network Technologies Certificate.

The program offers courses in network management technology, telecommunications, local area networks, wireless technologies, operating systems, network certification, and other related areas.

Network Management Technology students study both the data side and the voice side of the discipline. On the data side, students learn about computer networks, network operating systems, security, and computer application programs. On the voice side, students learn about designing, installing, and managing phone systems, and making decisions regarding the purchase and operation of hardware and software.

## **Web & User Experience**

**Program Coordinator:** Rich Fry

**Location:** Elizabeth Hall, Room 301

**Telephone Contact:** 801-626-6059

**WEB Program Advisors:** Rich Fry, Thomas Bell

**Associate Professor:** Laura MacLeod; **Assistant Professor:** Thomas Bell; **Instructor:** Laura Anderson

The Web and User Experience program offers an Associate of Applied Science (AAS) Degree and a Bachelor of Science (BS) Degree in Web and User Experience. Minors are offered in Web Technology, and User Experience Design.

The program offers courses in web design, user experience design, database management, graphic production, and other related areas.

Graduates of this program will be prepared for employment in web design, development, and user experience. Students will gain an understanding of best practices in each of these fields.

## Credit Policy

1. **Obsolete Credit:** School of Computing credits earned more than seven (7) years earlier than the proposed date of graduation will not be accepted toward University or major requirements unless validated through a challenge examination or approved by the appropriate academic department chair or department advisor.
2. **Waiver Requests:** Any exceptions to the printed School of Computing program graduation requirements must be approved by the appropriate academic department chair or department advisor prior to waiving, substituting, or taking the course(s) in question.

## Computer Science (AAS)

- **Grade Requirements:** A grade of "C" or better must be earned in all required CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** This degree requires a minimum 63 credit hours.
- **Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see your advisor or your department for specific information regarding assessment.

## Advisement

It is strongly suggested that Computer Science students see the departmental advisor on a regular basis. Call the department administrative specialist at 801-626-7929 for an appointment with the advisor. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (refer to Enrollment Services and Information) as Associate of Applied Science in Computer Science. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for the AAS general education requirements (core and breadth). The following required support courses will also be applied toward general education requirements: COMM 2110, ENGL 2010, PHYS 2210, MATH 1040 (or MATH 1210 or MATH 3410), and Computer Literacy as defined in this catalog (CS 1030 and LIBS 1504 or equivalent). In addition to these courses, students must take a Social Science course to fulfill the AAS general education requirements.

*Students who pass the Computer Science Advanced Placement A exam with a score of 3 receive 8 hours of credit and specific credit for CS 1022 (4). Students who pass the Computer Science Advanced Placement A exam with a score of 4 or 5 receive 8 hours of credit and specific credit for CS 1400 (4) (If they already have the CS 1400 (4) course they may receive CS 1023 (4)). Students who pass the Advanced Placement Computer Science Principles exam with a score of 3, 4, or 5 receive 4 hours of credit for CS 1030 (4).*

## Major Course Requirements for AAS Degree

### Computer Science Courses Required (40 credit hours)

- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 1410 - Object-Oriented Programming **Credits: (4)**
- CS 2130 - Computational Structures **Credits: (4)**
- CS 2350 - Client Side Web Development **Credits: (4)**
- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**
- CS 2450 - Software Engineering I **Credits: (4)**
- CS 2705 - Network Fundamentals and Design **Credits: (4)**
- CS 2550 - Introduction to Database Design and SQL **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- CS 2899 - Associate Degree Assessment **Credits: (0)**

### Support Courses Required (21-24 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- MATH 1210 - Calculus I **Credits: (4)**
  
- MATH 1040 QL - Introduction to Statistics **Credits: (3)** or
- MATH 3410 - Probability and Statistics I **Credits: (3)**
  
- ENGL 3100 - Professional and Technical Writing **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)** or
- ENGL 2250 CA - CW: Introduction to Creative Writing **Credits: (3)** or
- PHIL 1250 HU - Critical Thinking **Credits: (3)**

### In addition

*Information Literacy as defined in this catalog is also required for the AAS degree*

- LIBS 1504 - Information Literacy Competency Exam **Credits: (1)** or equivalent

### Suggested Course Sequence

## Network Management Technology (AAS)

- **Grade Requirements:** A grade of "C" or better in courses required for this program in addition to an overall GPA of 2.50 or higher for all required specific major courses and a minimum cumulative GPA for all courses of 2.00.
- **Credit Hour Requirements:** A total of 63 credit hours is required within the program. Recommendation: If additional elective hours are needed to meet the 63 credit hours required for the AAS degree, students are encouraged to take courses to be counted toward the Network Management Technology bachelor's degree.

## Advisement

All two-year Network Management Technology students should meet with a faculty advisor for course and program advisement. Call or email Diana Green at 801-626-6821 (djgreen@weber.edu), Andy Drake at 801-395-3477 (andrewdrake@weber.edu), Kyle Feuz (kylefeuz@weber.edu), or call 801-626-6059 for more information or to schedule an appointment. Advisement may also be obtained in Elizabeth Hall 301.

## Admission Requirements

Declare a program of study (see Enrollment Services and Information) with the department secretary (Elizabeth Hall 301). No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. COMM 2110 and ECON 1010 will be applied to fill both program and general education requirements.

## Major Course Requirements for AAS Degree

### Core Courses Required (11-13 credit hours)

- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- MATH 1040 QL - Introduction to Statistics **Credits: (3)**
  
- WEB 1700 - Introduction to Computer Applications **Credits: (3)** and
- LIBS 1704 - Information Navigator **Credits: (1)** (or equivalent)

### Specific Major Courses Required (42 credit hours)

- NET 1300 - Networks and Emerging Technologies **Credits: (3)** or
- NET 1030 - Foundations of Computing **Credits: (4)**
  
- NET 2200 - Microcomputer Operating Systems **Credits: (3)**
- NET 2300 - Introduction to LAN Management **Credits: (3)**
- NET 2415 - Cisco TCP/IP Routing Protocols and Router Configuration **Credits: (3)**
- NET 2435 - Cisco Advanced LAN and WAN Switching and Routing Theory and Design **Credits: (3)**
- WEB 1400 - Web Design and Usability **Credits: (3)**
- PS 3250 - Business Communication **Credits: (3)**
- EET 1110 - Basic Electronics **Credits: (2)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 2130 - Computational Structures **Credits: (4)**
- CS 2550 - Introduction to Database Design and SQL **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- NET 3200 - Linux Systems Administration **Credits: (3)**

### Support Courses Required (6 credit hours)

- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

# Web and User Experience (AAS)

- **Grade Requirements:** A grade of "C" or better must be earned in all required WEB and CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** A total of 63 credit hours is required.

## Advisement

Web and User Experience major students should meet with a School of Computing advisor for course and program advisement. Refer to the Department Advisor Referral List for more information or to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information) with the department secretary (Elizabeth Hall 301). No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. COMM 2110 will be applied to fill both program and general education requirements.

## Major Course Requirements for AAS Degree

### Core Courses Required (10 credit hours)

- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- MATH 1050 QL - College Algebra **Credits: (4)**

### General Education Courses Required (6 credit hours)

Refer to Degree Requirements for Associate of Applied Science requirements.

### Specific Major Courses Required (19 credit hours)

- WEB 1400 - Web Design and Usability **Credits: (3)**
- WEB 1430 - Client Side Programming **Credits: (3)**
- WEB 2500 - User Experience Design **Credits: (3)**
- WEB 2620 - Advanced CSS **Credits: (3)**
- WEB 2630 - Client Side Frameworks **Credits: (4)**
- WEB 2890 - Client-Side Portfolio **Credits: (3)**

### Support Courses Required (19 credit hours)

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ART 1120 - Design Concepts **Credits: (3)**
- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 2550 - Introduction to Database Design and SQL **Credits: (4)**

## Specific Major Electives (9 credit hours)

These 9 credits can be fulfilled with any CS or WEB 1xxx or 2xxx course which has not already been applied above.

- CS 1xxx Any CS 1xxx Course Not Slotted Elsewhere
- CS 2xxx Any CS 2xxx Course Not Slotted Elsewhere
- WEB 2xxx Any WEB 2xxx Course Not Slotted Elsewhere

## Game Development Certificate of Proficiency

A student may apply for a certificate of proficiency in Game Development provided he or she has fulfilled the following requirements:

1. Concurrent or previous completion of a Bachelor's Degree in Computer Science from the WSU College of Engineering, Applied Science, and Technology or any other accredited institution.
2. Completion of the following required courses with a grade of C or better. (These courses may also be slotted as electives for degree requirements).

### (15 credit hours):

- CS 1010 CA - Introduction to Interactive Entertainment **Credits: (3)**
- CS 4280 - Computer Graphics **Credits: (4)**
- CS 4640 - Foundations of Game Development **Credits: (4)**
- CS 4650 - Advanced Game Development **Credits: (4)**

## Network Security Technology Certificate of Proficiency

- **Grade Requirements:** A minimum overall GPA of 2.00 or "C".
- **Credit Hour Requirements:** A total of 23 credit hours is required in addition to Computer Competency (at least 10 of which must be residence hours taken from WSU).

## Course Requirements for Certificate of Proficiency

Courses Required (23 credit hours)

- CS 1400 - Fundamentals of Programming **Credits: (4)**
- NET 2300 - Introduction to LAN Management **Credits: (3)**
- NET 2415 - Cisco TCP/IP Routing Protocols and Router Configuration **Credits: (3)**
- NET 2435 - Cisco Advanced LAN and WAN Switching and Routing Theory and Design **Credits: (3)**
- NET 3300 - Advanced LAN Security Management **Credits: (3)**
  
- CS 3030 - Scripting Languages **Credits: (4)** or
- CS 3705 - Protocol Analysis **Credits: (4)**
  
- NET 3730 - Cyber Policy and Ethics **Credits: (3)**

# Network Technologies Certificate of Proficiency

- **Grade Requirements:** A minimum overall GPA of 2.00 or "C".
- **Credit Hour Requirements:** A total of 17-19 credit hours is required (at least 10 of which must be residence hours taken from WSU).

## Course Requirements for Certificate of Proficiency

Courses Required (17-19 credit hours)

- NET 2300 - Introduction to LAN Management **Credits: (3)** or
- CS 2705 - Network Fundamentals and Design **Credits: (4)**
  
- NET 3710 - Switching and Transmission Network Systems Management **Credits: (3)**
- NET 3715 - Transmission Network Applications **Credits: (2)**
- NET 2415 - Cisco TCP/IP Routing Protocols and Router Configuration **Credits: (3)**
- NET 2435 - Cisco Advanced LAN and WAN Switching and Routing Theory and Design **Credits: (3)**
  
- NET 3310 - Network Server Administration **Credits: (3)** or
- CS 3705 - Protocol Analysis **Credits: (4)**

## Programming Essentials Certificate of Proficiency

A student may apply for an Institutional Certificate of Proficiency in Programming Essentials provided he or she has fulfilled the following requirements:

1. Application for admission to Weber State University and/or current degree-seeking status.
2. Completion of the following required courses with a grade of "C" or better. These courses may also be slotted appropriately for degree requirements.

### **(16 credit hours):**

- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 1410 - Object-Oriented Programming **Credits: (4)**
- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**

# Computer Science (BS)

- **Program Prerequisite:** Completion or equivalent of a Weber State AAS degree in Computer Science and acceptance into the baccalaureate degree program.
- **Minor:** Required for the Customized Option.
- **Grade Requirements:** A grade of "C" or better must be earned in all required CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** A minimum of 126 credit hours is required for graduation. The actual number of credit hours required for graduation with the customized option varies.

## Advisement

It is strongly suggested that Computer Science students see an advisor on a regular basis. Call the department administrative specialist at 801-626-7929 for an appointment with the advisor. (Also refer to the Department Advisor Referral List.)

## Admission Requirements into the Bachelor Program

1. Complete an AAS degree in Computer Science or equivalent.
2. Formally declare and be accepted to baccalaureate status through the Department of Computer Science. Specific requirements and details may be obtained from a department advisor.

## General Education

Refer to Degree Requirements. The MATH 1040, or MATH 1210, or MATH 3410 course required for the Computer Science AAS degree, which is a pre-requisite to the BS major, also satisfies the WSU core general education Quantitative Literacy requirement. Computer Science majors must complete COMM 2110 as part of the Humanities general education requirement. It is recommended that Computer Science majors take CS 1010 for one of the CA general education requirements.

*Students who pass the Computer Science Advanced Placement A exam with a score of 3 receive 4 hours of credit for CS 1022 (4). Students who pass the Computer Science Advanced Placement A exam with a score of 4 or 5 receive a total of 8 hours of credit consisting of CS Elective credit (4) plus specific credit for either CS 1400 (4) or CS 1023 (4). Students who pass the Advanced Placement Computer Science Principles exam with a score of 3, 4, or 5 receive 4 hours of credit for CS 1030 (4).*

## Major Course Requirements for BS Degree

*To be taken in addition to the requirements for the AAS degree in Computer Science.  
Course Descriptions-CS, ETC, NET, WEB*

### Required Courses (24 credit hours)

CS 3100 - Operating Systems **Credits: (4)**

- CS 3230 - Object Oriented User Interface Development with Java **Credits: (4)** or
- CS 3280 - Object Oriented Windows Application Development **Credits: (4)**
- CS 3550 - Advanced Database Programming **Credits: (4)**
- CS 3750 - Software Engineering II **Credits: (4)**
- CS 4110 - Concepts of Formal Languages and Algorithms for Computing **Credits: (4)**

- CS 4790 - .NET Web Application Development **Credits: (4)** or
- CS 4230 - Java Application Development **Credits: (4)** or
- CS 4450 - Advanced Software Engineering Methods **Credits: (4)**
- CS 4899 - Bachelor's Degree Assessment **Credits: (0)**

### Support Courses Required (7-9 credit hours)

- MATH 1220 - Calculus II **Credits: (4)**
- PHYS 2300 - Scientific Computing for Physical Systems **Credits: (3)** or
- MATH 2210 - Calculus III **Credits: (4)** or
- MATH 2270 - Elementary Linear Algebra **Credits: (3)** or
- MATH 3110 - Foundations of Algebra **Credits: (3)** or
- MATH 3160 - Number Theory **Credits: (3)** or
- PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)** or
- MATH 3610 - Graph Theory **Credits: (3)**

### CS Upper Division Electives (8 credit hours)

*Choose 2 upper division computer science courses (see list of suggested electives). You may not use CS 4800 or CS 4850 or CS 4890 for these electives.*

### Other Upper Division Electives (6 credit hours)

*Choose 6 credits of any approved upper division courses from CS, IST, NET, WEB, ECE, EET, PHYS, BSAD, AND MATH. This may include up to 4 credits maximum in any one of the following courses: CS 4800, CS 4850, or CS 4890 (max 6 credits total).*

### Suggested Upper Division CS Electives

The following suggested electives are provided in order to assist students wishing to specialize in different areas:

Recommended electives for students desiring to pursue a Master's Degree in Computer Science

- CS 4280 - Computer Graphics **Credits: (4)**
- CS 4500 - Artificial Intelligence and Neural Networks **Credits: (4)**
- CS 4820 - Compiler Design **Credits: (4)**

Recommended electives for students desiring to specialize in Web Development

- CS 4230 - Java Application Development **Credits: (4)**
- CS 4350 - Advanced Internet Programming **Credits: (4)**
- CS 4790 - .NET Web Application Development **Credits: (4)**
- CS 3620 - Server-Side Web Architecture **Credits: (4)**
- CS 3630 - Rich Internet Application Development **Credits: (4)**

Recommended electives for students desiring to specialize in Mobile Development

- CS 3230 - Object Oriented User Interface Development with Java **Credits: (4)**

- CS 3260 - Mobile Development for the iPhone **Credits: (4)**
- CS 3270 - Mobile Development for Android **Credits: (4)**

Recommended electives for students desiring to specialize in Network Security

- CS 3030 - Scripting Languages **Credits: (4)**
- CS 3705 - Protocol Analysis **Credits: (4)**
- CS 3805 - Computer and Network Security **Credits: (4)**
- CS 3840 - Computer Forensics for Security Assurance **Credits: (4)**
- NET 4740 - Security Vulnerabilities and Intrusion Mitigation **Credits: (4)**

## **Alternative Customized Option (35 credit hours) plus a minor or first bachelor's degree**

Required Courses (28 credit hours)

- CS 3230 - Object Oriented User Interface Development with Java **Credits: (4)** or
- CS 3280 - Object Oriented Windows Application Development **Credits: (4)**
- CS 3550 - Advanced Database Programming **Credits: (4)**
- CS 3750 - Software Engineering II **Credits: (4)**
- CS 4110 - Concepts of Formal Languages and Algorithms for Computing **Credits: (4)**
- CS 4230 - Java Application Development **Credits: (4)** or
- CS 4350 - Advanced Internet Programming **Credits: (4)** or
- CS 4650 - Advanced Game Development **Credits: (4)** or
- CS 4450 - Advanced Software Engineering Methods **Credits: (4)** or
- CS 4790 - .NET Web Application Development **Credits: (4)**
- Any two computer science upper division electives **(8)**. *You may not use CS 4800 or CS 4850 or CS 4890 for these electives.*
- Complete a minor in any academic area or a concurrent second bachelor's degree, or have completed a first bachelor's degree.

Note:

*Additional hours of upper division computer science courses may be taken to satisfy the University upper division requirement of 40 hours (CS 4890 is recommended).*

Support Courses Required (7 credit hours)

- ENGL 3100 - Professional and Technical Writing **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)** or
- ENGL 2250 CA - CW: Introduction to Creative Writing **Credits: (3)** or
- PHIL 1250 HU - Critical Thinking **Credits: (3)**
- MATH 1220 - Calculus II **Credits: (4)**

# Network Management Technology (BS)

- **Program Prerequisite:** Completion or equivalent of a Weber State AAS Degree in Network Management Technology.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major in addition to an overall GPA of 2.50 or higher for all required specific major courses and a minimum cumulative GPA for all courses of 2.00.
- **Credit Hour Requirements:** A total of 120-126 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above); 38 of these credit hours are required within the major.

## Advisement

All Network Management Technology students should meet with a faculty advisor for course and program advisement. Call or email Diana Green at 801-626-6821 (djgreen@weber.edu), Andy Drake (andrewdrake@weber.edu), Kyle Feuz (kylefeuz@weber.edu) or call 801-626-6059 for more information or to schedule an appointment. Advisement may also be obtained in Elizabeth Hall 301.

## Admission Requirements

Complete an AAS Degree in Network Management Technology or equivalent. Declare a program of study (see Enrollment Services and Information) with Angela Christensen (angelachristensen@weber.edu) (Elizabeth Hall 301). No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for the Bachelor of Science requirements. COMM 2110 and ECON 1010 will be applied to fill 6 credits of both program and general education requirements. (These courses are taken as part of the AAS).

## Major Course Requirements for BS Degree

*To be taken in addition to the requirements for the Network Management Technology (AAS).*

### Specific Major Courses Required (44 credit hours)

- NET 3300 - Advanced LAN Security Management **Credits: (3)**
- NET 3310 - Network Server Administration **Credits: (3)**
- WEB 3400 - LAMP Stack Web Development **Credits: (3)**
- NET 3550 - Supervising Information Technology **Credits: (3)**
- NET 3710 - Switching and Transmission Network Systems Management **Credits: (3)**
- NET 3715 - Transmission Network Applications **Credits: (2)**
- NET 3720 - Advanced Transport Media **Credits: (3)**
- NET 3730 - Cyber Policy and Ethics **Credits: (3)**
- NET 4700 - Data and Voice Network Design **Credits: (4)**
- NET 4760 - Network/Telecommunications Internship **Credits: (3)**
- NET 4790 - Network/Telecommunications Senior Project **Credits: (2)**
- CS 3030 - Scripting Languages **Credits: (4)**
- CS 3705 - Protocol Analysis **Credits: (4)**
- NET 4740 - Security Vulnerabilities and Intrusion Mitigation **Credits: (4)**

# Web and User Experience (BS)

- **Program Prerequisite:** Completion or equivalent of a Weber State AAS Degree in Web and User Experience.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better must be earned in all required CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** A minimum of 123 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above).

## Advisement

Web and User Experience major students should meet with a School of Computing advisor for course and program advisement. Refer to the Department Advisor Referral List for more information or to schedule an appointment.

## Admission Requirements

Complete the AAS Degree in Web and User Experience or equivalent. Declare a program of study (see Enrollment Services and Information) with the department secretary (Elizabeth Hall 301). No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for the Bachelor of Science requirements. The COMM HU 2110 course required for the Web and User Experience major (taken as part of the AAS) will also be applied to fill general education requirements.

## Major Course Requirements for BS Degree

*To be taken in addition to the requirements for the AAS Degree in Web and User Experience.*

### Specific Major Courses Required (16 credit hours)

- WEB 3200 - Dynamic Languages for Web Development **Credits: (3)**
- WEB 3400 - LAMP Stack Web Development **Credits: (3)**
- WEB 3430 - MEAN Stack Web Development **Credits: (3)**
- WEB 3500 - User Interface Prototyping & Design **Credits: (3)**
- WEB 4350 - Web Development Capstone **Credits: (4)**

### Support Courses Required (14 credit hours)

- BSAD 3000 - Small Business Management **Credits: (3)** or
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**
  
- PS 3250 - Business Communication **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- CS 3550 - Advanced Database Programming **Credits: (4)**
- CS 3620 - Server-Side Web Architecture **Credits: (4)**

## Electives (12 credit hours)

- Any Web 3xxx or CS 3xxx Course Not Slotted Elsewhere
- Any Web 4xxx or CS 4xxx Course Not Slotted Elsewhere
- WEB 3300 - Motion Graphics **Credits: (3)**
- WEB 3410 - Web Animation II **Credits: (3)**
- WEB 3650 - Human-Computer Interaction **Credits: (4)**
- WEB 4800 - Independent Research **Credits: (1-4)**
- WEB 4860 - Internship **Credits: (3)**
- WEB 4890 - Server-Side Portfolio **Credits: (3)**

## Computer Science (BIS)

### Computer Science (Minor or BIS Concentration)

- **Grade Requirements:** A grade of "C" or better must be earned in all required CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** 28 hours for the Minor and BIS Concentration.

### Course Requirements for Minor or BIS Concentration (28 credit hours)

#### Required Courses (16 credit hours)

- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 1410 - Object-Oriented Programming **Credits: (4)**
- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**

#### Electives (12 credit hours)

#### Select two of the following courses (8 credit hours)

- CS 2350 - Client Side Web Development **Credits: (4)**
- CS 2450 - Software Engineering I **Credits: (4)**
- CS 2550 - Introduction to Database Design and SQL **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- CS 2705 - Network Fundamentals and Design **Credits: (4)**

#### Select one additional course (4 credit hours total)

*An approved upper division Computer Science course (CS courses numbered 3000 or higher) other than CS 4800, CS 4850, or CS 4890. An upper division programming language course (CS 3230, CS 3280, CS 3620, CS 3550, or CS 3030) is recommended.*

# Network Management Technology (BIS)

## Network Management Technology (Minor or BIS Emphasis)

*For the BIS emphasis, refer to Bachelor of Integrated Studies Program in the Interdisciplinary Programs section of this catalog.*

- **Grade Requirements:** The following required curriculum used for this minor must be completed with a grade of "C" or better and with a GPA of 2.50 or higher for all required specific major courses and a minimum cumulative GPA for all courses of 2.00.
- **Credit Hour Requirements:** Minimum of 23 credit hours in NMT courses as listed below.

### Advisement

Students should meet with a faculty advisor for course and program advisement. Call or email Diana Green at 801-626-6821 (djgreen@weber.edu), Andy Drake at 801-395-3477 (andrewdrake@weber.edu), Kyle Feuz (kylefeuz@weber.edu), or call 801-626-6059 for more information or to schedule an appointment. Advisement may also be obtained in Elizabeth Hall 301. (Also refer to the Department Advisor Referral List.)

### Courses Required for Minor

#### Courses Required (23 credit hours)

- NET 1300 - Networks and Emerging Technologies **Credits: (3)**
- NET 2200 - Microcomputer Operating Systems **Credits: (3)**
- NET 2300 - Introduction to LAN Management **Credits: (3)**
- NET 3200 - Linux Systems Administration **Credits: (3)**
- NET 3710 - Switching and Transmission Network Systems Management **Credits: (3)**
- NET 3715 - Transmission Network Applications **Credits: (2)**
- NET 4700 - Data and Voice Network Design **Credits: (4)**
- EET 1110 - Basic Electronics **Credits: (2)**

# Web Technology (BIS)

## Web Technology (Minor or BIS Emphasis)

*For the BIS emphasis, refer to Bachelor of Integrated Studies Program in the Interdisciplinary Programs section of this catalog.*

- **Grade Requirements:** The following required curriculum used for this minor must be completed with a grade of "C" or better and with minimum cumulative GPA for all courses of 2.70.
- **Credit Hour Requirements:** Minimum of 26 credit hours.

### Web Technology (Minor or BIS Emphasis)

- WEB 1030 - Foundations of Computing **Credits: (4)**
- WEB 1400 - Web Design and Usability **Credits: (3)**

- CS 1400 - Fundamentals of Programming **Credits: (4)**
- WEB 2350 - Client Side Web Development **Credits: (4)**
- WEB 2620 - Advanced CSS **Credits: (3)**
- WEB 2630 - Client Side Frameworks **Credits: (4)**
- WEB 3620 - Server-Side Web Architecture **Credits: (4)**

## Computer Science Minor

### Computer Science (Minor or BIS Concentration)

- **Grade Requirements:** A grade of "C" or better must be earned in all required CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** 28 hours for the Minor and BIS Concentration.

#### Course Requirements for Minor or BIS Concentration (28 credit hours)

##### Required Courses (16 credit hours)

- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 1410 - Object-Oriented Programming **Credits: (4)**
- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**

##### Electives (12 credit hours)

##### Select two of the following courses (8 credit hours)

- CS 2350 - Client Side Web Development **Credits: (4)**
- CS 2450 - Software Engineering I **Credits: (4)**
- CS 2550 - Introduction to Database Design and SQL **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- CS 2705 - Network Fundamentals and Design **Credits: (4)**

##### Select one additional course (4 credit hours total)

*An approved upper division Computer Science course (CS courses numbered 3000 or higher) other than CS 4800, CS 4850, or CS 4890. An upper division programming language course (CS 3230, CS 3280, CS 3620, CS 3550, or CS 3030) is recommended.*

# Network Management Technology Minor

## Network Management Technology (Minor or BIS Emphasis)

*For the BIS emphasis, refer to Bachelor of Integrated Studies Program in the Interdisciplinary Programs section of this catalog.*

- **Grade Requirements:** The following required curriculum used for this minor must be completed with a grade of "C" or better and with a GPA of 2.50 or higher for all required specific major courses and a minimum cumulative GPA for all courses of 2.00.
- **Credit Hour Requirements:** Minimum of 23 credit hours in NMT courses as listed below.

### Advisement

Students should meet with a faculty advisor for course and program advisement. Call or email Diana Green at 801-626-6821 (djgreen@weber.edu), Andy Drake at 801-395-3477 (andrewdrake@weber.edu), Kyle Feuz (kylefeuz@weber.edu), or call 801-626-6059 for more information or to schedule an appointment. Advisement may also be obtained in Elizabeth Hall 301. (Also refer to the Department Advisor Referral List.)

### Courses Required for Minor

#### Courses Required (23 credit hours)

- NET 1300 - Networks and Emerging Technologies **Credits: (3)**
- NET 2200 - Microcomputer Operating Systems **Credits: (3)**
- NET 2300 - Introduction to LAN Management **Credits: (3)**
- NET 3200 - Linux Systems Administration **Credits: (3)**
- NET 3710 - Switching and Transmission Network Systems Management **Credits: (3)**
- NET 3715 - Transmission Network Applications **Credits: (2)**
- NET 4700 - Data and Voice Network Design **Credits: (4)**
- EET 1110 - Basic Electronics **Credits: (2)**

# User Experience Design Minor

*User experience is a critical component of software and web design. User-centric design has allowed software engineers and front-end web developers to create user experiences that are more sophisticated. This minor will address user experience best practices in several courses using current tools and technologies. The courses in this minor will complement major course offerings.*

- **Grade Requirements:** The following required curriculum used for this minor must be completed with a grade of "C" or better and with a minimum cumulative GPA for all courses of 2.70.
- **Credit Hour Requirements:** Minimum of 24 credit hours.

### Advisement

Web and User Experience major students should meet with a School of Computing advisor for course and program advisement. Refer to the Department Advisor Referral List for more information or to schedule an appointment.

## Required Courses

- WEB 1400 - Web Design and Usability **Credits: (3)**
- WEB 2200 - Image Editing **Credits: (3)**
- WEB 2210 - Computer Illustrations **Credits: (3)**
- WEB 2300 - Video Editing **Credits: (3)**
  
- WEB 2410 - Web Animation I **Credits: (3)** or
- WEB 3300 - Motion Graphics **Credits: (3)**
  
- WEB 2500 - User Experience Design **Credits: (3)**
- WEB 2620 - Advanced CSS **Credits: (3)**
- WEB 3500 - User Interface Prototyping & Design **Credits: (3)**

## Web Technology Minor

### Web Technology (Minor or BIS Emphasis)

*For the BIS emphasis, refer to Bachelor of Integrated Studies Program in the Interdisciplinary Programs section of this catalog.*

- **Grade Requirements:** The following required curriculum used for this minor must be completed with a grade of "C" or better and with minimum cumulative GPA for all courses of 2.70.
- **Credit Hour Requirements:** Minimum of 26 credit hours.

### Web Technology (Minor or BIS Emphasis)

- WEB 1030 - Foundations of Computing **Credits: (4)**
- WEB 1400 - Web Design and Usability **Credits: (3)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- WEB 2350 - Client Side Web Development **Credits: (4)**
- WEB 2620 - Advanced CSS **Credits: (3)**
- WEB 2630 - Client Side Frameworks **Credits: (4)**
- WEB 3620 - Server-Side Web Architecture **Credits: (4)**

## Computer Science Teaching Minor

- **Grade Requirements:** A grade of "C" or better must be earned in all required CS courses (a grade of "C-" is not acceptable). A grade of "C-" or better must be earned in all required support courses. In addition, an overall GPA of 2.70 or higher must be attained for all required courses.
- **Credit Hour Requirements:** 26 hours for the Teaching Minor.

*Students who select the Computer Science Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education) and have a teaching major.*

## Course Requirements for Teaching Minor (26 credit hours)

### Required Courses (18 credit hours)

- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 1410 - Object-Oriented Programming **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- EDUC 3370 - Advanced Instructional Technology **Credits: (2)**

### Electives (8 credit hours)

Select one of the following

- CS 2250 - Structured Computing in a Selected Language **Credits: (4)**
- CS 2350 - Client Side Web Development **Credits: (4)**
- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**
- CS 2450 - Software Engineering I **Credits: (4)**
- CS 2550 - Introduction to Database Design and SQL **Credits: (4)**

Select one additional course (4 credit hours)

*An approved upper division Computer Science course (CS courses numbered 3000 or higher) other than CS 4800, CS 4850, or CS 4890. An upper division programming language course (CS 3230, CS 3280, CS 3620, CS 3550, or CS 3030) is recommended.*

## Computer Science Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Network Management Technology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Mobile Application Development Certificate

A student may apply for a certificate in Mobile Application Development provided he or she has fulfilled the following requirements:

1. Concurrent or previous completion of a Bachelor's Degree in Computer Science from the WSU College of Applied Science and Technology or any other accredited institution.
2. Completion of the following required courses with a grade of C or better. These courses may also be slotted as electives for degree requirements.

## (12 credit hours):

- CS 3260 - Mobile Development for the iPhone **Credits: (4)**
- CS 3270 - Mobile Development for Android **Credits: (4)**
- CS 3630 - Rich Internet Application Development **Credits: (4)**

## Master of Science in Computer Science (MSCS)

Enrollment in this program is subject to pending approval from the Northwest Commission on Colleges and Universities, which accredits Weber State University.

**Grade Requirements:** An MSCS student must complete all program courses, including electives, with a grade of "B-" or higher. In addition, the overall program GPA must be 3.0 or higher.

**Credit Hour Requirements:** The program requires a minimum of 31 semester hours beyond a bachelor's degree in computer science.

Once enrolled, a student must register for at least one MSCS course each semester, excepting summers, until graduation. Students who fail to do so must petition for readmission into the program.

### Admissions Requirements

Applicants for admission into the Master of Science in Computer Science program must possess a bachelor's degree or be in the final stage of completing the degree. An overall GPA of 3.25 is required from the undergraduate program in which the bachelor's degree is earned.

Applicants will submit:

- Completed application
- Current resume
- Official transcripts from every institution of higher education attended
- Scores from the GRE. NOTE: Individuals who have already completed a graduate-level program and are well into established careers in a related field may be admitted without the GRE requirement, based on admission committee approval.
- Contact information for three references, at least one from a professional context and one from an academic context

### Additional Admission Requirements for International Students

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL) or International Language Testing System (IELTS) which is not more than two years old. Applicants are required to have an internet-based TOEFL score of 79-80 or a minimum IELTS score of 6.0.

## Application

The application for admission to the Master of Science in Computer Engineering program must be submitted online. Official transcripts from each institution of higher education attended and all test scores must be sent directly to the WSU Department of Engineering.

Deadlines for application are the first Friday in November for students enrolling in spring semester and the first Friday in May for students enrolling in fall semester. Completed applications are considered by the Admissions Committee after each application deadline

## Advisement

For questions concerning academic advisement, the primary source of contact is the program director. Students should meet with the director at least once a year while enrolled. For issues regarding registration and scheduling, students should contact either the Administrative Specialist for the Department of Engineering or the Administrative Specialist for the Department of Computer Science.

## Leveling Courses

As determined on a case-by-case basis, students with non-computer science degrees may be required to take leveling courses in technology-related areas that will adequately prepare them for the MS core courses. The minimum leveling courses for non-computer science degrees are the following:

- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- CS 3100 - Operating Systems **Credits: (4)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MATH 1210 - Calculus I **Credits: (4)**

## Course Requirements for MSCE

Required Core MSCS courses (10 credits):

- CS 6420 - Advanced Algorithms **Credits: (3)**
- CS 6610 - Computer Architecture **Credits: (3)**
- CS 6820 - Compiler Design **Credits: (4)**

Required Capstone Design Project or Thesis Research (6 credits):

- CS 6010 - Design Project **Credits: (2-6)** or
- CS 6011 - Thesis Research **Credits: (2-6)**

MSCS Students are required to complete either a substantial project (CS 6010) or original research resulting in a thesis (CS 6011). The student must declare to the department their intent to do a project or thesis.

Generally, CS 6010 is taken for students with an industry-minded perspective.

Alternatively, CS 6011 is taken for students with a more academic-minded perspective and are more likely to go get their doctorate (Ph.D.).

A total of 6 or more credits is required.

A minimum of 5 electives are required.

## Elective MSCS Courses in CS (9-15 credits):

- CS 6100 - Distributed Operating Systems **Credits: (3)**
- CS 6500 - Artificial Intelligence and Neural Networks **Credits: (4)**
- CS 6600 - Machine Learning **Credits: (3)**
- CS 6740 - Computer Systems Security **Credits: (3)**
- CS 6830 - Special Topics in Computer Science **Credits: (3)**
- CS 6840 - Formal System Design **Credits: (3)**
- CS 6850 - Parallel Programming and Architecture **Credits: (3)**

## Elective Graduate Courses (0-6 credits):

- ECE 6110 - Digital VLSI Design **Credits: (3)**
- ECE 6120 - Advanced VLSI Design **Credits: (3)**
- ECE 6130 - Advanced Semiconductor Devices **Credits: (3)**
- ECE 6210 - Digital Signal Processing **Credits: (3)**
- ECE 6220 - Image Processing **Credits: (3)**
- ECE 6410 - Communication Circuits and Systems **Credits: (3)**
- ECE 6420 - Digital Communication **Credits: (3)**
- ECE 6710 - Real-Time Embedded Systems **Credits: (4)**
- MBA 6160 - Applications of Decision Models **Credits: (3)**
- MBA 6310 - Information Technology in the Enterprise **Credits: (3)**
- MBA 6530 - E-Business **Credits: (3)**
- MBA 6630 - Networking & Information Systems **Credits: (3)**
- MBA 6640 - Information Assurance in the Enterprise **Credits: (3)**

## Construction Management Technology Department

**Department Chair:** Joseph Wolfe

**Location:** WSU Davis D3, Room 310

**Telephone Contact:** Andrea Stuart 801-395-3427

**Email:** ParsonCMT@weber.edu

**Professor:** Steven Peterson; **Associate Professors:** Chris Soelberg, Joseph Wolfe; **Instructors:** Russell Butler, Pieter van der Have

The Parson Construction Management Technology program teaches the processes, procedures and management techniques necessary to function as a "Professional Constructor" as defined by the American Institute of Constructors and the American Council of Construction Education (ACCE). It is designed to prepare students for immediate professional level employment or further study by developing a cohesive, solid technical foundation bolstered by practical, hands-on experiences, at the same time providing the education necessary for lifelong learning in a changing world. The process of learning is emphasized, as well as accumulation of knowledge. The multi-disciplinary curriculum is composed of courses in the areas of construction science, construction practice, business, and management as well as general education. The program is accredited by the American Council of Construction Education.

The Construction Management Program-Facilities Management Emphasis prepares graduates to manage and maintain the physical facilities for companies. Facilities managers may be responsible for leading activities in all or parts of the following: managing operations and maintenance of buildings, physical plant and utility distribution systems, grounds upkeep, road and parking lot maintenance, snow removal; recycling and waste management, energy conservation,

sustainability; long range facility planning, remodeling of existing facilities and planning, design and construction of new facilities and systems; code compliance.

The Parson Construction Management Technology curriculum is a "2+2" design facilitating articulation with programs in architecture, commercial building construction, design graphics, facilities and other construction-related degrees.

## Apprenticeship (AAS)

The Associate of Applied Science in Apprenticeship degree is a generic degree that is specifically designed for students who have completed or are completing an apprenticeship program under the auspices of the Office of Apprenticeship. This degree consists of the apprenticeship courses and on-the-job training from the Ogden Weber Applied Technology College (OWATC) coupled with general education and two additional required courses from Weber State University.

While the degree was developed for OWATC apprenticeship students, **it is open to anyone who meets the qualifications** of an apprentice with a certificate of proficiency from a post-secondary institution offering the Office of Apprenticeship (OA) certified program. Please see [www.ucat.edu](http://www.ucat.edu) for a list of other Utah College of Applied Technology locations.

*For additional information and advisement, contact Rainie Ingram, College of Engineering, Applied Science & Technology Academic Advisor (phone: 801-626-7785; email: [ringram@weber.edu](mailto:ringram@weber.edu)).*

In order for a student to receive this degree they must complete the course requirements listed below and provide one of the following:

- State of Utah Journeyman's License
- Certificate of Completion from the Office of Apprenticeship (OA)
- Certificate of Completion from the post-secondary institution offering an OA certified program

## Course Requirements for the AAS Degree

- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**
- MATH 1050 QL - College Algebra **Credits: (4)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
- LIBS 1704 - Information Navigator **Credits: (1)**

## Construction Management Technology (AAS)

- **Grade Requirements:** A grade of "C" or better in all major courses, business courses, and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation under Degree Requirements .
- **Credit Hour Requirements:** 65 total credit hours are required. A minimum of 20 hours in residence at WSU is required. A student must also complete a minimum of 18 hours of CMT major courses at WSU to obtain an AAS degree.

## Advisement

All Construction Management Technology students are encouraged to meet with a faculty advisor at the beginning of their freshman and sophomore years for course and program advisement. Call the CMT program secretary at 801-395-3427 to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this program. (Also refer to the Department Advisor Referral List.)

## General Education

Refer to the Degree Requirements for Associate of Applied Science requirements. The following courses required for the Construction Management Technology AAS degree will also fulfill general education requirements: COMM 1020/COMM 2110 (Humanities), MATH 1080 (Quantitative Literacy), ECON 2010 (Social Science), and LIBS 1704 (Information Navigator).

## Major Course Requirements for AAS Degree

### Construction Management Technology Courses Required (36 credit hours)

- CMT 1100 - Construction Management Orientation **Credits: (1)**
- CMT 1150 - Construction Graphics **Credits: (3)**
- CMT 1220 - Construction Contracts **Credits: (3)**
- CMT 1310 - Materials & Methods **Credits: (4)**
- CMT 1330 - Civil Materials **Credits: (4)**
- CMT 1550 - Construction Safety **Credits: (2)**
- CMT 2210 - Construction Jobsite Management **Credits: (3)**
- CMT 2260 - MEP **Credits: (4)**
- CMT 2340 - Civil Design and Layout **Credits: (4)**
- CMT 2360 - Commercial Design and Codes **Credits: (4)**
- CMT 2410 - LEED-GA Preparation **Credits: (1)**
- CMT 2640 - Quantity Survey **Credits: (2)**
- CMT 2899 - AAS Graduation Assessment and Signoff **Credits: (0)**
- CMT 2990 - Construction Management Seminar **Credits: (0.5)** (2 credit hours required)

### Business Courses Required (9 credit hours)

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- BSAD 1010 - Introduction to Business **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**

### Support Courses Required (17 credit hours)

- MATH 1080 QL - Pre-calculus **Credits: (5)**
- LIBS 1704 - Information Navigator **Credits: (1)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
  
- COMM 2010 HU - Mass Media and Society **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**
- MIS 2010 - Business Computer Skills **Credits: (1)**

## Construction Management Emphasis, Construction Management Technology (BS)

- **Program Prerequisite:** Declare a Program of Study in Construction Management Technology
- **Minor:** Not required, Business minor is recommended.
- **Grade Requirements:** A grade of "C" or better in all major courses, business courses, and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation under Degree Requirements.
- **Credit Hour Requirements:** A total of 123 credit hours is required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above).
- **Assessment Requirements:** The students will be required to take Associate Constructor (AC) exam administered by American Institute of Constructors (AIC). A minimum score of 192 out of 300 (64 percent) is required for graduation. The exam may be retaken if needed.

### Advisement

All Construction Management Technology students are encouraged to meet with a faculty advisor at the beginning of their freshman, junior, and senior years for course and program advisement. Call the CMT program secretary at 801-395-3427 to schedule an appointment. (Also refer to the Department Advisor Referral List).

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this program.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. Consult with an academic advisor for specific general education guidelines. The following courses required for the Construction Management Technology-- Construction Management Emphasis BS degree will also fulfill general education requirements: COMM 1020/ COMM 2110 (Humanities), MATH 1080 (Quantitative Literacy), ECON 2010 (Social Science), PHYS 2010 (Physical Science), and BTNY 1403 (Life Science).

## Major Course Requirements for BS Degree

*Course requirements are subject to change. Check with program advisor for current requirements.*

### Construction Management Technology Courses Required (65 credit hours)

- CMT 1100 - Construction Management Orientation **Credits: (1)**
- CMT 1150 - Construction Graphics **Credits: (3)**
- CMT 1220 - Construction Contracts **Credits: (3)**
- CMT 1310 - Materials & Methods **Credits: (4)**
- CMT 1330 - Civil Materials **Credits: (4)**

- CMT 1550 - Construction Safety **Credits: (2)**
- CMT 2210 - Construction Jobsite Management **Credits: (3)**
- CMT 2260 - MEP **Credits: (4)**
- CMT 2340 - Civil Design and Layout **Credits: (4)**
- CMT 2360 - Commercial Design and Codes **Credits: (4)**
- CMT 2410 - LEED-GA Preparation **Credits: (1)**
- CMT 2640 - Quantity Survey **Credits: (2)**
- CMT 2990 - Construction Management Seminar **Credits: (0.5)** (2 credit hours required)
- CMT 3115 - Construction Cost Estimating **Credits: (3)**
- CMT 3130 - Construction Planning & Scheduling **Credits: (3)**
- CMT 3310 - Leadership in the Construction Industry **Credits: (2)**
- CMT 3370 - Preconstruction Services **Credits: (3)**
- CMT 4120 - Construction Accounting and Finance **Credits: (3)**
- CMT 4150 - Construction Equipment and Methods **Credits: (3)**
- CMT 4330 - Applied Structures **Credits: (4)**
- CMT 4350 - Temporary Structures **Credits: (2)**
  
- CMT 4510 - Design Charrette **Credits: (1)** or
- CMT 4520 - ASC Student Competition **Credits: (1)** Students can choose between CMT 4510 or 4520
  
- CMT 4570 - Approaches to Construction Contracting **Credits: (2)**
- CMT 4620 - Senior Project **Credits: (2)**
- CMT 4899 - BS Graduation Assessment and Signoff **Credits: (0)**

#### Business Courses Required (18 credit hours)

##### The following Business Courses are Required:

- BSAD 1010 - Introduction to Business **Credits: (3)**
- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**

#### Support Courses Required (28 credit hours)

##### The following Support Courses are Required:

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** (4 credit hours required)
  
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
  
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
  
- MIS 2020 - Introduction to Information Systems **Credits: (3)** or
- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**
  
- LIBS 1704 - Information Navigator **Credits: (1)**

- MATH 1080 QL - Pre-calculus **Credits: (5)**
- PS 3250 - Business Communication **Credits: (3)**
- PHYS 2010 PS - College Physics I **Credits: (5)**

## Facilities Management Emphasis, Construction Management Technology (BS)

- **Program Prerequisite:** Declare a Program of Study in Construction Management Technology and declare your emphasis as Facilities Management.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all major courses, business courses, and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation under Degree Requirements.
- **Credit Hour Requirements:** A total of 121 credit hours is required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

### Advisement

All Construction Management Technology students are encouraged to meet with a faculty advisor at the beginning of their freshman, junior, and senior years for course and program advisement. Call the CMT program secretary at 801-395-3427 to schedule an appointment. (Also refer to the Department Advisor Referral List).

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to the Degree Requirements for Bachelor of Science requirements. Consult with an academic advisor for specific general education guidelines. The following courses required for the Construction Management Technology--Facilities Management Emphasis BS degree will also fulfill general education requirements: COMM 1020/COMM 2110 (Humanities), MATH 1080 (Quantitative Literacy), ECON 2010 (Social Science), and BTNY 1403 (Life Science).

## Major Course Requirements for BS Degree

*Course requirements are subject to change. Check with program advisor for current requirements.*

### Construction Management Technology Courses Required (63 credit hours)

- CMT 1100 - Construction Management Orientation **Credits: (1)**
- CMT 1150 - Construction Graphics **Credits: (3)**
- CMT 1220 - Construction Contracts **Credits: (3)**
- CMT 1310 - Materials & Methods **Credits: (4)**
- CMT 1330 - Civil Materials **Credits: (4)**
- CMT 1550 - Construction Safety **Credits: (2)**
- CMT 2210 - Construction Jobsite Management **Credits: (3)**
- CMT 2260 - MEP **Credits: (4)**

- CMT 2340 - Civil Design and Layout **Credits: (4)**
- CMT 2360 - Commercial Design and Codes **Credits: (4)**
- CMT 2410 - LEED-GA Preparation **Credits: (1)**
- CMT 2640 - Quantity Survey **Credits: (2)**
- CMT 2899 - AAS Graduation Assessment and Signoff **Credits: (0) See program advisor for signoff**
- CMT 2990 - Construction Management Seminar **Credits: (0.5)** (2 credit hours required)
- CMT 3130 - Construction Planning & Scheduling **Credits: (3)**
- CMT 3310 - Leadership in the Construction Industry **Credits: (2)**
- CMT 3510 - Energy Management in Bldg. M&E Systems **Credits: (4)**
- CMT 3630 - Environmental Issues in FM **Credits: (3)**
- CMT 3680 - Facility Management Administration and Operations **Credits: (4)**
- CMT 4270 - Computer Aided FM **Credits: (4)**
- CMT 4310 - Long-term Planning in Facility Management **Credits: (4)**
- CMT 4650 - FM Senior Project **Credits: (2)**
- CMT 4899 - BS Graduation Assessment and Signoff **Credits: (0) See program advisor for signoff**

### Business Courses Required (15 credit hours)

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- BSAD 1010 - Introduction to Business **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MGMT 3300 - Human Resource Management **Credits: (3)**

### Support Courses Required (26 credit hours)

- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** (3 credit hours required)
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
- LIBS 1704 - Information Navigator **Credits: (1)**
- MATH 1080 QL - Pre-calculus **Credits: (5)**
- Three (3) Approved Electives - **9 Credit Hours**

## Construction Management Technology Minor

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.50 or better in all CMT courses.
- **Credit Hour Requirements:** 23 total credit hours are required as listed below.

### Advisement

The CMT Minor must be cleared with the CMT Program Coordinator. Call the CMT program secretary at 801-395-3427 to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Course Requirements for Minor

### Construction Management Technology Courses Required (17 credit hours)

- CMT 1100 - Construction Management Orientation **Credits: (1)**
- CMT 1150 - Construction Graphics **Credits: (3)**
- CMT 1220 - Construction Contracts **Credits: (3)**
- CMT 1310 - Materials & Methods **Credits: (4)**
- CMT 1550 - Construction Safety **Credits: (2)**
- CMT 2360 - Commercial Design and Codes **Credits: (4)**

### Recommended Electives (6 credit hours)

*Select 6 hours from the following courses as approved by the CMT program coordinator.*

- CMT 1330 - Civil Materials **Credits: (4)**
- CMT 2210 - Construction Jobsite Management **Credits: (3)**
- CMT 2260 - MEP **Credits: (4)**
- CMT 2340 - Civil Design and Layout **Credits: (4)**
- CMT 2410 - LEED-GA Preparation **Credits: (1)**
- CMT 2640 - Quantity Survey **Credits: (2)**
- CMT 2990 - Construction Management Seminar **Credits: (0.5)**
- CMT 3115 - Construction Cost Estimating **Credits: (3)**
- CMT 3130 - Construction Planning & Scheduling **Credits: (3)**
- CMT 3310 - Leadership in the Construction Industry **Credits: (2)**
- CMT 3370 - Preconstruction Services **Credits: (3)**
- CMT 4120 - Construction Accounting and Finance **Credits: (3)**
- CMT 4150 - Construction Equipment and Methods **Credits: (3)**
- CMT 4330 - Applied Structures **Credits: (4)**
- CMT 4350 - Temporary Structures **Credits: (2)**
  
- CMT 4510 - Design Charrette **Credits: (1)** or
- CMT 4520 - ASC Student Competition **Credits: (1)**
  
- CMT 4570 - Approaches to Construction Contracting **Credits: (2)**

## Construction Management Technology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Department of Engineering

**Department Chair:** Kirk D. Hagen

**Location:** Engineering Technology Building, Room 236

**Telephone Contact:** Susan Foss 801-626-6898

**Email:** susanfoss@weber.edu

**Website:** weber.edu/engineering

**Professor:** Kirk Hagen; **Associate Professors:** Fon Brown, Christian Hearn, Justin Jackson, Larry Zeng; **Assistant Professors:** Suketu Naik, Dhanya Nair, Christopher Trampel

Engineering is the application of science and mathematics to the optimum conversion of the resources of nature to the uses of humankind. More specifically, engineering is the creative application of scientific principles to design and develop devices, systems and processes to satisfy the needs of society.

Engineering is a broad field, consisting of a variety of disciplines such as biomedical, chemical, civil, electrical, computer, and mechanical engineering. For example, biomedical engineers design artificial organs and diagnostic systems to detect and treat diseases. Chemical engineers design fuels, plastics and drugs. Civil engineers design roads, buildings, bridges and water treatment plants. Electrical engineers design computers, communication devices and power control systems. Mechanical engineers design machines, spacecraft, power plants and heating and air-conditioning systems.

The Department of Engineering houses three academic programs, Computer Engineering, Electrical Engineering and Pre-Engineering. The Computer Engineering and Electrical Engineering programs prepare the student to enter the engineering industry or graduate school in the discipline. The Pre-Engineering Program constitutes the first two years of a bachelor's program and prepares the student to transfer to another institution to complete the four-year engineering degree.

The Engineering Department offers a Bachelor of Science (BS) degree in Electrical Engineering, Computer Engineering and an Associate of Pre-Engineering (APE) degree.

## Pre-Engineering (APE)

- **Grade Requirements:** A minimum overall GPA of 2.00 is required.
- **Credit Hour Requirements:** A minimum of 57 credit hours is required. A minimum of 20 hours in residence (for transfer students).

*The Associate of Pre-Engineering (APE) degree at Weber State University offers the first two years of a professional engineering curriculum. The degree is designed to prepare students for transfer into an engineering program at other universities in Utah, or throughout the United States, that offer four-year engineering degrees. Because many pre-engineering graduates will transfer to the University of Utah or Utah State University, the WSU Pre-Engineering program has official transfer agreements with these two schools.*

*In planning a program of study, students should be aware that most pre-engineering courses have mathematics and science prerequisites and that improper scheduling of courses can lengthen the time required to complete the degree. Students should also be aware that requirements may vary according to the university to which the student wishes to transfer. Students are therefore strongly encouraged to meet with the Pre-Engineering coordinator prior to beginning their program.*

*The Associate of Pre-Engineering degree has fewer general education credit hours than the Associate of Science (AS) degree. Therefore, in order for a student to obtain a Bachelor of Science (BS) degree in engineering, he or she will have to take additional general education courses at WSU and/or the receiving university. Alternatively, a student may earn the AS degree, but this degree may take longer than the APE degree because it contains not only pre-engineering courses but also a full complement of general education courses. The AS degree has the potential benefit, however, of satisfying all the general education requirements at either the University of Utah or Utah State University.*

## Advisement

All Pre-Engineering students are strongly encouraged to meet with the Pre-Engineering coordinator at the beginning of the program and at least once annually for course and program advisement. Pre-Engineering students are also encouraged to obtain advisement from the applicable engineering department at the receiving university.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program. However, students entering the Pre-Engineering program are expected to have taken college preparatory mathematics and physical science courses in high school. The standard entry level mathematics course for pre-engineering majors is MATH 1210 - Calculus I. The prerequisite for MATH 1210 is MATH 1080 QL - Pre-calculus, or MATH 1050 QL - College Algebra plus MATH 1060 - Trigonometry, or placement through examination. Students who are not ready to take MATH 1210 upon entering the Pre-Engineering program should consult with the Pre-Engineering coordinator, who will recommend remedial courses that will prepare the student for calculus, physics and engineering courses.

## Major Course Requirements for APE Degree

### General Education Core Requirements (15 credit hours)

#### 1. Composition (3 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

#### 2. American Institutions (3 credit hours)

- POLS 1100 AI - American National Government **Credits: (3)** or
- HIST 1700 AI - American Civilization **Credits: (3)** or
- ECON 1740 AI - Economic History of the United States **Credits: (3)**

#### 3. Information Literacy (.5 to 1 credit hours)

Refer to the Information Literacy requirements listed under the General Requirements section of this catalog. The credit hours for this requirement do not count toward the 57 credit hour total for this degree.

#### 4. General Education Breadth Requirements (9 credit hours)

Select 9 credit hours – 3 credit hours from Humanities (HU), 3 credit hours from Creative Arts (CA) and 3 credit hours from Social Sciences (SS) (a list of courses for each area appears under the General Education section of this catalog).

### Pre-Engineering Core Requirements (20 credit hours)

- ENGR 1000 - Introduction to Engineering **Credits: (2)**
- MATH 1210 - Calculus I **Credits: (4)**
- MATH 1220 - Calculus II **Credits: (4)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** (w lab)
- PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)** (w lab)

## Engineering Specialty Courses (22 credit hours minimum)

Engineering specialty courses are those that are required for specific engineering disciplines at the receiving universities. With the assistance of the Pre-Engineering coordinator, students should take courses that apply to their particular engineering major at the university to which they plan to transfer. The specialty courses listed below apply generally, but do not constitute a list of specific course requirements for any particular receiving university. Engineering specialty course requirements for the University of Utah and Utah State University may be obtained from the Pre-Engineering coordinator or the applicable engineering department at these institutions.

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**
- CHEM 2310 - Organic Chemistry I **Credits: (4)**
- CHEM 2320 - Organic Chemistry II **Credits: (4)**
- CHEM 3070 - Biochemistry I **Credits: (3)**
  
- CS 1023 - Selected Programming Language **Credits: (4)**
- CS 1030 - Foundations of Computing **Credits: (4)**
- CS 1400 - Fundamentals of Programming **Credits: (4)**
- CS 1410 - Object-Oriented Programming **Credits: (4)**
- CS 2250 - Structured Computing in a Selected Language **Credits: (4)**
  
- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
  
- ENGR 2010 - Statics **Credits: (3)**
- ENGR 2080 - Dynamics **Credits: (4)**
- ENGR 2140 - Mechanics of Materials **Credits: (3)**
- ENGR 2160 - Materials Science and Engineering **Credits: (4)**
- ENGR 2210 - Electrical Engineering for Non-majors **Credits: (4)**
- ENGR 2300 - Thermodynamics I **Credits: (3)**
  
- ECE 1270 - Introduction to Electrical Circuits **Credits: (4)**
- ECE 2260 - Fundamentals of Electrical Circuits **Credits: (4)**
- ECE 2700 - Digital Circuits **Credits: (4)**
  
- GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** and
- GEO 1115 - Physical Geology Lab **Credits: (1)**
  
- MATH 2210 - Calculus III **Credits: (4)**
- MATH 2250 - Linear Algebra and Differential Equations **Credits: (4)**
- MATH 2270 - Elementary Linear Algebra **Credits: (3)**
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
  
- MICR 2054 LS - Principles of Microbiology **Credits: (4)**

# Computer Engineering (BS)

**Program Prerequisite:** Not required.

**Minor:** Not required.

**Grade Requirements:** A grade of "C" or better in all ECE and support courses is required for this major (a grade of "C-" is not acceptable). Students must have an overall GPA of 2.5 or higher to graduate.

**Credit Hour Requirements:** A total of 124.5-125 credit hours is required for graduation.

*Computer Engineering is the branch of engineering that integrates the fields of electrical engineering and computer science. Computer engineers use computer hardware and software to solve engineering problems. They are trained in computer architecture, embedded systems, software design, data structures, hardware interfacing, and hardware/software integration. The Computer Engineering program offers courses in basic circuitry, microelectronics, embedded systems, algorithms, data structures, and signal processing. An internship, which gives students engineering work experience, is also part of the program. In the senior year, students complete a two-semester capstone project that integrates their course work. The program prepares graduates to enter engineering industry or pursue advanced studies in the discipline.*

## Program Educational Objectives

Educational objectives are the career and life accomplishments that the program prepares graduates to achieve within a few years after graduation. The educational objectives of the WSU Computer Engineering Program are to produce graduates that are able to:

- Design and develop computer hardware and software systems.
- Effectively communicate technical information and participate in a team environment.
- Engage in life-long learning through continuing education and industrial practice.
- Demonstrate professional ethics and social awareness.

## Accreditation

Weber State University will seek accreditation through the Engineering Accreditation Commission (EAC) of ABET.

## Advisement

All Computer Engineering students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6898 for the name of your advisor and to schedule an appointment. Individual student records are accessible through the WSU Home Page.

## Admission Requirements

See the academic advisor or department secretary to declare your program of study (major). The program is split into two parts, a pre-professional program and a professional program. By declaring your major you will be added to the pre-professional program. After completion of the pre-professional program, students are required to apply for admittance to the professional program. A minimum GPA of 2.8 in the 1000 and 2000 math, science, computer science, and engineering courses is required for application to the professional program.

## Departmental Honors

For information on Departmental Honors, please see the Engineering website at <http://www.weber.edu/engineering/honors.html> or the Honors Program.

## General Education

Refer to Degree Requirements for Bachelor of Science degrees. Consult with your advisor and refer to the major requirements below for specific general education courses required.

## Major Course Requirements for Computer Engineering BS Degree

### Electrical and Computer Engineering Required Courses (41 credit hours)

- ECE 1000 - Introduction to Electrical Engineering **Credits: (2)** or
- ENGR 1000 - Introduction to Engineering **Credits: (2)**
  
- ECE 1270 - Introduction to Electrical Circuits **Credits: (4)**
- ECE 2260 - Fundamentals of Electrical Circuits **Credits: (4)**
- ECE 2700 - Digital Circuits **Credits: (4)**
- ECE 3000 - Engineering Seminar **Credits: (1)**
- ECE 3090 - Project Management **Credits: (1)**
- ECE 3110 - Microelectronics I **Credits: (4)**
- ECE 3210 - Signals and Systems **Credits: (4)**
- ECE 3610 - Digital Systems **Credits: (4)**
- ECE 3710 - Embedded Systems **Credits: (4)**
- ECE 3890 - Internship **Credits: (1)**
- ECE 4010 - Senior Project I **Credits: (2)**
- ECE 4020 - Senior Project II **Credits: (2)**
- ECE 4100 - Control Systems **Credits: (4)**

### Computer Science Required Courses (20 credit hours)

- CS 2250 - Structured Computing in a Selected Language **Credits: (4)**  
*or both*
- CS 1400 - Fundamentals of Programming **Credits: (4)**  
*and*
- CS 1410 - Object-Oriented Programming **Credits: (4)**
  
- CS 2130 - Computational Structures **Credits: (4)**
- CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**
- CS 2810 - Computer Architecture/Organization **Credits: (4)**
- CS 3100 - Operating Systems **Credits: (4)**

### ECE and CS Elective Courses (12 credit hours)

Select 12 credit hours from the following courses. At least 1 course with CS and 1 course with ECE prefix required.

- CS 4110 - Concepts of Formal Languages and Algorithms for Computing **Credits: (4)**
- CS 4280 - Computer Graphics **Credits: (4)**
- CS 4450 - Advanced Software Engineering Methods **Credits: (4)**
- CS 6100 - Distributed Operating Systems **Credits: (3)**
- CS 6500 - Artificial Intelligence and Neural Networks **Credits: (4)**
- CS 6600 - Machine Learning **Credits: (3)**

- CS 6820 - Compiler Design **Credits: (4)**
- CS 6840 - Formal System Design **Credits: (3)**
- CS 6850 - Parallel Programming and Architecture **Credits: (3)**
- ECE 5110 - Digital VLSI Design **Credits: (3)**
- ECE 5120 - Advanced VLSI Design **Credits: (3)**
- ECE 5130 - Advanced Semiconductor Devices **Credits: (3)**
- ECE 5210 - Digital Signal Processing **Credits: (3)**
- ECE 5220 - Image Processing **Credits: (3)**
- ECE 5410 - Communication Circuits and Systems **Credits: (3)**
- ECE 5420 - Digital Communication **Credits: (3)**
- ECE 5710 - Real-Time Embedded Systems **Credits: (4)**
- ECE 5800 - Individual Studies **Credits: (1-4)**
- ECE 5900 - Special Topics **Credits: (1-4)**

## Support Courses Required (minimum of 19 credit hours)

- ENGL 3100 - Professional and Technical Writing **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)**
- MATH 1220 - Calculus II **Credits: (4)**
- MATH 2250 - Linear Algebra and Differential Equations **Credits: (4)**  
*or both*
- MATH 2270 - Elementary Linear Algebra **Credits: (3)** and
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

## General Education Courses Required (34 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010, Introductory College Writing (3) or equivalent*
- American Institutions (AI) **Credits: (3)**
- MATH 1210 - Calculus I **Credits: (4)**
- Information Literacy
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- Humanities and Creative Arts (HU/CA) **Credits: (6)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- Social Science and Diversity (SS/DV) **Credits: (3)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- Life Science (LS) **Credits: (4)**

## Electrical Engineering (BS)

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all ECE and support courses is required for this major (a grade of "C-" is not acceptable). Students must have an overall GPA of 2.5 or higher to graduate.
- **Credit Hour Requirements:** A total of 120.5-121 credit hours is required for graduation.

*Electrical Engineering is the branch of engineering that deals with the design and development of electronic devices and systems such as computers, telecommunications and controls. The Electrical Engineering Program offers courses in basic analog and digital circuits, microelectronic systems, electromagnetics, embedded systems, and signal processing. An internship, which gives students engineering work experience, is also part of the program. In the senior year, students complete a two-semester capstone project that integrates their course work. The program prepares graduates to enter engineering industry or pursue advanced studies in the discipline.*

## **Program Educational Objectives**

Educational objectives are the career and life accomplishments that the program prepares graduates to achieve within a few years after graduation. The educational objectives of the WSU Electrical Engineering Program are to produce graduates that are able to:

- Design and develop electrical systems.
- Effectively communicate technical information and participate in a team environment.
- Engage in life-long learning through continuing education and industrial practice.
- Demonstrate professional ethics and social awareness.

## **Accreditation**

The Weber State University Electrical Engineering program is accredited by the Engineering Accreditation Commission (EAC) of ABET.

## **Advisement**

All Electrical Engineering students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6898 for the name of your advisor and to schedule an appointment. Individual student records are accessible through the WSU Home Page.

## **Admission Requirements**

See the academic advisor or department secretary to declare your program of study (major). The program is split into two parts, a pre-professional program and a professional program. By declaring your major you will be added to the pre-professional program. After completion of the pre-professional program, students are required to apply for admittance to the professional program. A minimum GPA of 2.8 in the 1000 and 2000 math, science, computer science, and engineering courses is required for application to the professional program.

## **Departmental Honors**

For information on Departmental Honors, please see the Department of Engineering website at <http://www.weber.edu/engineering/> or the Honors Program.

## **General Education**

Refer to Degree Requirements for Bachelor of Science degrees. Consult with your advisor and refer to the major requirements below for specific general education courses required.

## **Major Course Requirements for EE BS Degree**

Electrical Engineering Required Courses (49 credit hours)

- ECE 1000 - Introduction to Electrical Engineering **Credits: (2)** or
- ENGR 1000 - Introduction to Engineering **Credits: (2)**

- ECE 1270 - Introduction to Electrical Circuits **Credits: (4)**
- ECE 2260 - Fundamentals of Electrical Circuits **Credits: (4)**
- ECE 2700 - Digital Circuits **Credits: (4)**
- ECE 3000 - Engineering Seminar **Credits: (1)**
- ECE 3110 - Microelectronics I **Credits: (4)**
- ECE 3120 - Microelectronics II **Credits: (4)**
- ECE 3210 - Signals and Systems **Credits: (4)**
- ECE 3310 - Electromagnetics I **Credits: (4)**
  
- ECE 3510 - Power Systems **Credits: (4)** or
- ECE 3610 - Digital Systems **Credits: (4)**
  
- ECE 3710 - Embedded Systems **Credits: (4)**
- ECE 3890 - Internship **Credits: (1)**
- ECE 3090 - Project Management **Credits: (1)**
- ECE 4010 - Senior Project I **Credits: (2)**
- ECE 4020 - Senior Project II **Credits: (2)**
- ECE 4100 - Control Systems **Credits: (4)**

### Electrical Engineering Elective Courses (12 credit hours)

*Select 12 credit hours from the following 5000 level courses*

- ECE 5110 - Digital VLSI Design **Credits: (3)**
- ECE 5120 - Advanced VLSI Design **Credits: (3)**
- ECE 5130 - Advanced Semiconductor Devices **Credits: (3)**
- ECE 5210 - Digital Signal Processing **Credits: (3)**
- ECE 5220 - Image Processing **Credits: (3)**
- ECE 5310 - Electromagnetics II **Credits: (3)**
- ECE 5410 - Communication Circuits and Systems **Credits: (3)**
- ECE 5420 - Digital Communication **Credits: (3)**
- ECE 5510 - Advanced Power Systems **Credits: (3)**
- ECE 5710 - Real-Time Embedded Systems **Credits: (4)**
- ECE 5800 - Individual Studies **Credits: (1-4)**
- ECE 5900 - Special Topics **Credits: (1-4)**

### Support Courses Required (minimum of 27 credit hours)

- CS 2250 - Structured Computing in a Selected Language **Credits: (4)**  
*or both*
- CS 1400 - Fundamentals of Programming **Credits: (4)** and
- CS 1410 - Object-Oriented Programming **Credits: (4)**
  
- ENGL 3100 - Professional and Technical Writing **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)**
  
- MATH 1220 - Calculus II **Credits: (4)**
- MATH 2210 - Calculus III **Credits: (4)**

- MATH 2250 - Linear Algebra and Differential Equations **Credits: (4)**  
*or both*
- MATH 2270 - Elementary Linear Algebra **Credits: (3)** and
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

### General Education Courses Required (38 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
- American Institutions (AI) **Credits: (3)**
- MATH 1210 - Calculus I **Credits: (4)**
- Information Literacy
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- Humanities and Creative Arts (HU/CA) **Credits: (6)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- Social Science and Diversity (SS/DV) **Credits: (3)**
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- Life Science (LS) **Credits: (3)**

## Mechanical Engineering (BS)

**Enrollment in this program is subject to pending approval from the Northwest Commission on Colleges and Universities, which accredits Weber State University.**

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all ME and support courses is required for this major (a grade of "C-" is not acceptable). Students must have a minimum cumulative WSU GPA of 2.5 to graduate.
- **Credit Hour Requirements:** A total of 126 credit hours is required for graduation.

Mechanical Engineering is the branch of engineering that deals with the design and development of mechanical devices and systems across a wide spectrum of industries such as transportation, aerospace, biotechnology, electronics, robotics, power generation, renewable energy, environmental control and manufacturing. The Mechanical Engineering Program offers courses in engineering mechanics, materials, thermal-fluid sciences, instrumentation and measurements and manufacturing. In the senior year, students complete a two-semester capstone project that integrates their course work. The program prepares graduates to enter engineering industry or to pursue graduate studies in the discipline.

### Program Educational Objectives

Educational objectives are the career and life accomplishments that the program prepares graduates to achieve within a few years after graduation. The educational objectives of the WSU Mechanical Engineering Program are to produce graduates that are able to:

- Design and develop mechanical systems.
- Effectively communicate technical information and participate in a team environment.
- Engage in life-long learning through continuing education and industrial practice.

- Demonstrate professional ethics and social awareness.

## Accreditation

The Weber State University Mechanical Engineering program will seek accreditation by the Engineering Accreditation Commission (EAC) of ABET upon producing its first graduate.

## Advisement

All Mechanical Engineering students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6898 for the name of your advisor and to schedule an appointment. Individual student records are accessible through the WSU Home Page.

## Admission Requirements

See the faculty advisor or department secretary to declare your program of study (major).

## General Education

Refer to Degree Requirements or Bachelor of Science degrees. Consult with your advisor and refer to the major requirements below for specific general education courses required.

## Major Course Requirements for ME BS Degree

### Mechanical Engineering Required Courses (50 credit hours)

- ENGR 1000 - Introduction to Engineering **Credits: (2)**
- ENGR 2010 - Statics **Credits: (3)**
- ENGR 2080 - Dynamics **Credits: (4)**
- ENGR 2140 - Mechanics of Materials **Credits: (3)**
- ENGR 2160 - Materials Science and Engineering **Credits: (4)**
- ENGR 2210 - Electrical Engineering for Non-majors **Credits: (4)**
- ENGR 2300 - Thermodynamics I **Credits: (3)**
- ME 3040 - Dynamic System Modeling **Credits: (3)**
- ME 3050 - Machine Design **Credits: (3)**
- ME 3060 - Sensors, Instrumentation and Control Systems **Credits: (3)**
- ME 3300 - Fluid Mechanics **Credits: (3)**
- ME 3350 - Engineering Computing **Credits: (2)**
- ME 3500 - Numerical Methods for Engineering **Credits: (3)**
- ME 4000 - Heat Transfer **Credits: (3)**
- ME 4100 - Senior Project I **Credits: (3)**
- ME 4200 - Senior Project II **Credits: (3)**
- ME 4990 - Seminar in Mechanical Engineering **Credits: (1)**

### Mechanical Engineering Elective Courses (6 credit hours)

*Select 6 credit hours from the following 4000 level courses:*

- ME 4150 - Vibrations **Credits: (3)**
- ME 4250 - Finite Element Analysis **Credits: (3)**
- ME 4300 - Material Failure Analysis **Credits: (3)**

- ME 4350 - Advanced Mechanics of Materials **Credits: (3)**
- ME 4400 - Aerodynamics **Credits: (3)**
- ME 4450 - Aerospace Propulsion **Credits: (3)**
- ME 4500 - Heating, Ventilating and Air-Conditioning **Credits: (3)**
- ME 4550 - Robotics **Credits: (3)**

#### Required Support Course (minimum of 36 credit hours)

- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- MSE 1210 - Metal Processing and Joining for Engineers **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- MATH 1210 - Calculus I **Credits: (4)**
- MATH 1220 - Calculus II **Credits: (4)**
- MATH 2210 - Calculus III **Credits: (4)**
- MATH 2250 - Linear Algebra and Differential Equations **Credits: (4)**  
*or both*
- MATH 2270 - Elementary Linear Algebra **Credits: (3)** *and*
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MATH 3710 - Boundary Value Problems **Credits: (3)**
- PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

#### Required General Education Courses (34 credit hours)

- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
***prerequisite is ENGL 1010 Introductory College Writing (3) or placement.***
- American Institutions (AI) **Credits: (3)**
- Information Literacy **Credits: (.5-1)\***
- Humanities and Creative Arts (HU/CA) **Credits: (9)**
- Social Science/Diversity (SS/DV) **Credits: (3)**
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- Life Science (LS) **Credits: (3)**  
***\*Information Literacy not included in 34 credit hour total***

#### Additional Mechanical Engineering courses (not required however these need departmental approval)

- ME 4800 - Individual Research Problems **Credits: (1-3)**
- ME 4830 - Readings in Mechanical Engineering **Credits: (1-3)**
- ME 4890 - Cooperative Work Experience **Credits: (1-3)**
- ME 4900 - Special Topics **Credits: (1-3)**
- ME 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

# Engineering Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog. Or visit the department website at <http://www.weber.edu/engineering/ee.html>.

## Department of Engineering Technology

**Department Chair:** George Comber

**Location:** Engineering Technology Building, Room 214

**Telephone Contact:** Wendi Birch 801-626-6305

**Email:** [wendibirch@weber.edu](mailto:wendibirch@weber.edu)

**Professors:** Mark Baugh, George Comber, Kelly Harward, Daniel Magda, Rick Orr, Kerry Tobin; **Associate**

**Professors:** Dustin Birch, Jeremy Farner, Julianne McCulley, Megumi Usui, Glen West; **Assistant Professors:** Mary Foss, Spencer Petersen; **Instructors:** Randall Kent, Justin Knighton, Jeffry Strahan

Engineering technology education focuses primarily on the applied aspects of science and engineering aimed at preparing graduates for practice in that portion of the technological spectrum closest to product improvement, industrial processes, and operational functions. The engineering technology programs at Weber State prepare individuals for a wide variety of positions in technology based business and industries. The study of engineering technology requires a knowledge of mathematical, scientific, and engineering principles in combination with a strong applications-orientation in support of engineering activities. The College of Engineering, Applied Science & Technology offers AAS and BS degrees in the following engineering technology programs:

- Electronics Engineering Technology
- Manufacturing Engineering Technology
- Mechanical Engineering Technology
- Product Design and Development: An Engineering Technology

The BS degrees in these programs are accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

### Manufacturing Engineering Technology

**Location:** Engineering Technology Building, Room 214

**Telephone Contact:** Wendi Birch 801-626-6305

**Email:** [wendibirch@weber.edu](mailto:wendibirch@weber.edu)

The Weber State Manufacturing Engineering Technology program has been recognized as one of the outstanding manufacturing technology programs in the country. Students may choose among three emphasis areas within the Manufacturing Engineering Technology Program; Production Operations and Control, Welding, or Plastics and Composites. The Production Operations and Control emphasis area is designed to prepare the student for professional employment in industry by giving them fundamental knowledge and skills in a broad range of manufacturing disciplines and processes. These include process planning, tool and machine design, material selection and treatment, process automation, manufacturing resource planning, Six Sigma methods and tools in manufacturing, and lean manufacturing. State-of-the-art laboratories give the students hands-on experiences with CNC machine tools, robotics, programmable logic controllers, systems integration and the latest in a variety of CAD/ CAM systems. Year-long required senior projects have included satellites, hybrid electric vehicles and computer integrated manufacturing cells and others which help students gain confidence in their abilities while gaining additional insight and skills in both teamwork and human relations.

The Manufacturing Engineering Technology Welding Emphasis is designed to produce welding engineering technology graduates that are involved in the concept, design, engineering, and metallurgy of weldments and implementation of welding processes in any manufacturing or technical industry. The program has six main areas of study: welding and manufacturing, design and structural, metallurgical, quality assurance, electrical, and management. The courses are designed to give students, the background to solve welding related issues in a variety of industry settings. Students will learn how to set up welding quality systems with procedures and qualifications. Most of the classes have labs where students receive hands on training to complement the classroom instruction. Students complete a senior project with a team that brings together their experience and education.

The Manufacturing Engineering Technology Plastics and Composite Emphasis is designed to prepare the student for professional employment in the plastic/composite industry. Students will learn firsthand about the complex interdependence between plastic/composite process, materials, tooling, and part design. The design portion of the emphasis will provide the knowledge and skills required to fulfill a number of career roles that focus on the product development process, which includes plastic part design. Another phase of this education delves into the differences between the many types of plastics as well as the properties which differentiate plastics from other materials. This emphasis will also expose the students to a wide variety of tooling from the many plastic disciplines. This includes injection, thermoforming, blow molding, extrusion dies and high/low tech composite molds. This exposure provides the students with a keen understanding of the function, construction, and multi-component interactions involved in well-constructed plastics tooling.

## **Mechanical Engineering Technology**

**Location:** Engineering Technology Building, Room 214

**Telephone Contact:** Wendi Birch 801-626-6305

**Email:** wendibirch@weber.edu

Mechanical engineering technology is the practical application of mechanical engineering. Mechanical engineering technologists play an integral role in product design and manufacturing process cycles which include planning, design, analysis, testing and documentation. They utilize skills in materials science, engineering mechanics, thermal science, design, instrumentation and technical writing.

The curriculum includes problem-solving courses such as statics, strength of materials, dynamics, machine design, thermodynamics, fluid mechanics and heat transfer that are based on engineering science and mathematics. Integrated into many of the courses are laboratory and project oriented experiences that teach the practical, hands-on aspects of mechanical engineering technology. A balanced blend of engineering science and practical applications provides the mechanical engineering technologist the knowledge and skills needed to be successful in today's technical workplace. Mechanical engineering technology has led to numerous opportunities for exciting, creative and rewarding careers in a wide range of industries including aerospace, automotive, electronics, manufacturing, medical equipment, mining and power generation.

### MECHANICAL ENGINEERING TECHNOLOGY (MET) TRANSFER CREDIT POLICY

Any coursework proposed as transfer credit, not currently covered by in-place articulation agreements, are subject to the requirements noted below. No deviation to this policy will be allowed without written consent of the program coordinator and department chair.

### ACCREDITATION REQUIREMENTS

The institution where the coursework was, or is, going to be completed must be a recognized institution of higher learning. It must also be accredited by at least one of the following:

- Northwest Commission on Colleges and Universities
- Western Associations of Schools and Colleges
- Middle States Commission on Higher Education (formerly part of the Middle States Association of Colleges and Schools)
- Southern Association of Colleges and Schools
- New England Association of Schools and Colleges
- Higher Learning Commission (formerly part of the North Central Association of Colleges and Schools)

- Accrediting Commission for Community and Junior Colleges (formerly part of the Western Association of Schools and Colleges)

If the course being proposed for transfer credit was completed at a 4-year institution, and is potentially being applied to MET core course requirements, including technical electives, the institution must also have one of the following accreditations, in addition to the ones noted above:

- ETAC/ABET (Engineering Technology Accreditation Commission)
- EAC/ABET (Engineering Accreditation Commission)

#### CREDIT HOURS AND GRADES

Any proposed transfer course must have equal or greater credit hours than the course being proposed for replacement. Two or more courses may be used when transferring credit for a single class. For example, a 3 credit hour course in Statics and 3 credit hour course in Strength of Materials could be substituted for the 5 credit hours Weber State University course in Statics & Strength of Materials.

No course will be considered for transfer credit fulfilling major requirements unless a final grade of C or better is achieved. A grade of C- or below will not be considered for transfer credit under any circumstances.

#### ONLINE COURSEWORK

While currently enrolled at Weber State University in the MET program, any online or distance learning coursework taken simultaneously, at a different institution, will be considered for transfer credit provided the following conditions are met:

- The institution is accredited per the guidelines above.
- The exams are independently proctored at an approved testing location. Preferably, the exams are administered at a Weber State University testing center.
- The name, title, address, phone, and e-mail address of the responsible exam proctor are provided.
- A complete course syllabus for the semester attended is provided for review.

#### COURSEWORK EXCLUSIVE TO WEBER STATE UNIVERSITY

No transfer credit (including internal substitutions from existing Weber State University coursework) will be considered for the courses listed below. The courses that must be completed at Weber State University as designated within the MET program are as follows:

- MET 4990 (Senior Seminar)
- MET 4500/4510 (Senior Project I & II)
- MET 4650 (Thermal Science)
- MET 4200 (Mechanical Design with FEA)
- MET 3700 (Testing & Failure Analysis)
- MET 3500 (Mechanical Measurements & Instrumentation)
- MET 3400 (Machine Design)
- MET 3300 (Computer Programming Applications in MET)
- MET 3150 (Engineering Technology Materials)
- MET 3050 (Dynamics)

#### TECHNICAL ELECTIVE CREDIT

A total of 3 credit hours of lower division (2000 level) technical elective credit will be allowed to be transfer credit. All other required technical elective credit must be completed at Weber State University.

#### PETITION PROCESS

Any student requesting consideration of coursework accomplished at another institution of higher learning (including AP, Early College, etc.), but not accepted via the standard articulation agreements, must fill out, and submit to the

program coordinator, the standard Transfer Credit Petition form. This form is available at the Engineering Technology offices. It is also available online at the program webpage.

The petition must be completed, conforming to the instructions attached to the petition forms. If the instructions are not completely followed, no consideration to the transfer credit request will be granted.

An example of a completed petition is available for review in the ET Department offices or online at the program webpage.

### CHALLENGE EXAM

If, for any reason, an acceptable level of subject mastery is suspected to be insufficient for a proposed transfer course, a challenge exam can be requested of the student. The exam will be unique and prepared for this instance by the program coordinator or his/her designated authority. If the student does not pass the exam based on the criteria established by the program coordinator, or he/she refuses to take the exam, no consideration will be given for transfer credit of the course in question.

### ACCEPTANCE OF TRANSFER CREDIT

If requested transfer credit meets the requirements of this policy, as evaluated by the individual program coordinator, advisor, or department chair, credit for the requested course, or courses, may be approved. If for any reason, it appears, based on the judgement of the program coordinator, advisor, or department chair, that the proposed transfer course does not sufficiently meet the requirements for substitution for an ET course, the request will be denied, and credit will not be granted.

### DOCUMENTATION

After a complete evaluation of the transfer credit petition, the reviewer will enter a note into the requestee's Cattracks noting the decision regarding transfer credit either being accepted or declined. For any course accepted as a reasonable substitute, Cattracks will be updated accordingly, granting credit.

## **Product Design and Development: An Engineering Technology**

**Location:** Engineering Technology Building, Room 214

**Telephone Contact:** Wendi Birch 801-626-6305

**Email:** wendibirch@weber.edu

The Product Design and Development program prepares students to develop product design and development drawings. 3D models, reports, presentations, technical illustrations, interactive multimedia, and animations for industry. Students will develop their graphical skills, techniques, concepts, and management skills through exercises and projects. They will work in mechanical, electrical, and structural disciplines. Students will use calculators, computers, handbooks, and engineering reference materials while applying various mathematical concepts from geometry, algebra, and trigonometry.

## **Electronics Engineering Technology**

**Location:** Engineering Technology Building, Room 214

**Telephone Contact:** Wendi Birch 801-626-6305

**Email:** wendibirch@weber.edu

The Electronics Engineering Technology AAS degree prepares graduates to specify, install, operate, troubleshoot, and modify computers, automated programmable controllers, and electronic systems. It is designed to give the student fundamental knowledge and basic skills in robotics, automation, electronic manufacturing, fabrication, testing, and troubleshooting.

The Electronics Engineering Technology Bachelor of Science (BS) degree is designed to continue a student's education beyond the associate's degree level. It is intended to provide the student with knowledge and skills in problem solving, critical thinking, project management, team building, and engineering research to identify, evaluate, analyze, and solve complex computer and electronic related technical problems.

## Supply Chain Management Minor for Engineering Technology Students

Engineering technologists become even more valuable in the workplace by learning the knowledge and skills of supply chain management (SCM). A minor program in supply chain management is offered by the Goddard School of Business and Economics for students in Engineering Technology programs. For program prerequisites, requirements and other details, please refer to the listing in the John B. Goddard School of Business & Economics section of the university catalog.

## Controls Technology (AAS)

**Grade Requirements:** A grade of "C" or better in all required and support courses (a grade of "C-" is acceptable). Students must have an overall GPA of 2.5 or higher to graduate.

**Credit Hour Requirements:** A minimum of 69 credit hours is required with a minimum of 23 credit hours in the major with a block of 25 credit hours for the Applied Technology College (ATC) Industrial Automation Maintenance Technician (IAMT) certification. Transfer students are required to take a minimum of 20 credit hours at Weber State University.

### Advisement

All Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 to schedule an appointment.

### Admission Requirements

See the department secretary to declare your program of study (major - see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Associate of Applied Science requirements. Consult with your advisor for specific general education guidelines.

## Course Requirements for Controls Technology AAS Degree

### Required Engineering Technology Courses (23 credit hours)

- EET 1130 - Digital Systems **Credits: (4)**
- EET 1140 - DC Circuits **Credits: (3)**
- EET 2010 - AC Circuits **Credits: (3)**
- EET 2120 - Power and Motors **Credits: (4)**
- EET 2170 - Industrial Controls **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**
- MFET 4580 - Process Automation II & Robotics **Credits: (1)**
- MFET 4585 - Process Automation II Lab **Credits: (2)**

### Required Support Course (25 credit hours)

Students must complete the Industrial Automation Maintenance certification consisting of at least 900 hours at the collaborating ATCs: DATC, OWATC, BATC. The certificate will transfer as a block of 25 credit hours toward the Controls Technology degree.

## Required General Education Courses (21 credit hours)

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- MATH 1010 - Intermediate Algebra **Credits: (4)**
- MATH 1060 - Trigonometry **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- WEB 1701 - Document Creation **Credits: (1)**
- WEB 1703 - Data Manipulation, Visualization, and Presentation **Credits: (1)**

## Electronics Engineering Technology (AAS)

- **Grade Requirements:** A grade of "C" or better in all EET and support courses (a grade of "C-" is not acceptable). Students must have an overall GPA of 2.5 or higher to graduate.
- **Credit Hour Requirements:** A minimum of 63 credit hours is required with a minimum of 37 credit hours in the major. Transfer students are required to take a minimum of 20 credit hours at Weber State University.

### Advisement

All Electronics Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 to schedule an appointment.

### Admission Requirements

See the department secretary to declare your program of study (major - see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Associate of Applied Science requirements. Consult with your advisor for specific general education guidelines.

## Course Requirements for EET AAS Degree

### Required EET Courses (37 credit hours)

- EET 1110 - Basic Electronics **Credits: (2)**
- EET 1130 - Digital Systems **Credits: (4)**
- EET 1140 - DC Circuits **Credits: (3) \***
- EET 2010 - AC Circuits **Credits: (3)**
- EET 2110 - Semiconductor Circuits **Credits: (4)**
  
- EET 2120 - Power and Motors **Credits: (4)** or
- EET 2180 - Solar PV Systems **Credits: (4) \*** or
- EET 2190 - Solar PV Technical Assessments **Credits: (4) \***
  
- EET 2130 - PC Board Design **Credits: (3)**

- EET 2140 - Communications Systems **Credits: (4)**
- EET 2150 - Embedded Controllers **Credits: (4)**
- EET 2160 - Troubleshooting **Credits: (3)**
- EET 2170 - Industrial Controls **Credits: (3)**

*\* Course qualified for Solar Photovoltaic Systems Institutional Certificate*

Required Support Course (3 credit hours)

- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)** or
- MATH 1040 QL - Introduction to Statistics **Credits: (3)**

Required General Education Courses (23-28 credit hours)

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
- MATH 1080 QL - Pre-calculus **Credits: (5)** or both
- MATH 1050 QL - College Algebra **Credits: (4)** and
- MATH 1060 - Trigonometry **Credits: (3)**

**Gen Ed Life Science (4)**

**Gen Ed Social Science (Diversity) (3)**

**Gen Ed Creative Arts/Humanities (3)**

**Computer Literacy (2)**

## General Technology (AAS)

- **Program Prerequisite:** A 900 hour minimum certificate from a WSU approved DATC or OWATC program awarded within 5 years of beginning the AAS in General Technology Program.
- **Grade Requirements:** A grade of "C" or better in all core and elective courses (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher.
- **Credit Hour Requirements:** A minimum of 63.5 credit hours (includes exactly 30 transfer credit hours for completing an approved 900 or more hour certificate program at DATC or OWATC. Residency (WSU courses): Must complete a minimum of 20 credit hours.

### Advisement

All General Technology students are required to meet with an academic advisor from the WSU's College of Engineering, Applied Science & Technology upon entering the program.

### Admission Requirements

Regular university admission requirements and a completed 900 hour minimum approved technical specialty certificate from OWATC or DATC awarded within 5 years of beginning the AAS program. Students with an approved 900-hour minimum ATC technical certificate awarded within 5 years of beginning the AAS program will receive 30 hours of transfer elective credit toward an AAS in General Technology degree upon completion of all WSU graduation requirements for the AAS in General Technology. Approval by the College of Engineering, Applied Science and Technology at Weber State University is required.

## Major Course Requirements for the AAS in General Technology Degree

*NOTE: Individual articulated courses between WSU and DATC/OWATC will not count for this requirement if those courses were included in the 900-hour certificate, excluding transfer equivalents to NTM 1700. Students must complete a minimum of 20 credit hours of WSU residency (WSU courses).*

### Core Courses Required (10.5 credit hours minimum; grade of "C" or better required)

- ENGL 1010 EN - Introductory College Writing **Credits: (3)** and
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
**or**
- ENGL 1010 EN - Introductory College Writing **Credits (3)** or
- ENGL 2010 EN - Intermediate College Writing **Credits (3)**
- AND one other course in oral and written communication **Credits: (3)**

#### **AND**

- MATH 1030 QL - Contemporary Mathematics **Credits: (3)** or
- MATH 1040 QL - Introduction to Statistics **Credits: (3)** or
- MATH 1050 QL - College Algebra **Credits: (4)** or
- MATH 1080 QL - Pre-calculus **Credits: (5)**

#### **AND**

- WEB 1700 - Introduction to Computer Applications **Credits: (3)** or
- WEB 1501 - Document Creation Competency Exam **Credits: (.5)** and
- WEB 1502 - Content, Internet Identity, and Device Management Competency Exam **Credits: (.5)** and
- WEB 1503 - Data Manipulation, Visualization, and Presentation Competency Exam **Credits: (.5)**

### Breadth Courses Required (9 credit hours minimum)

#### *Creative Arts & Humanities:*

- COMM 2110 HU Interpersonal and Small Group Communication **(3)**

#### *Social Science:*

- Any Approved (3)

#### *Physical or Life Science:*

- Any Approved (3-5)

### Elective Courses (Select 14-17 credit hours)

*Grades for the following elective courses must meet departmental requirements. Students should work closely with the College of Engineering, Applied Science & Technology academic advisor to select a course sequence that will support the student's chosen career pathway.*

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- BSAD 1010 - Introduction to Business **Credits: (3)**
- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- DET 1160 - Geometric Dimensioning & Tolerancing Using 3D CAD **Credits: (3)**
- DET 2460 - Product Design Fundamentals Using 3D CAD **Credits: (3)**
- DET 2650 - Product Design & Development **Credits: (3)**

- EET 1110 - Basic Electronics **Credits: (2)**
- EET 1130 - Digital Systems **Credits: (4)**
- EET 1140 - DC Circuits **Credits: (3)**
- EET 1850 - Industrial Electronics **Credits: (4)**
- EET 2150 - Embedded Controllers **Credits: (4)**
- EET 2170 - Industrial Controls **Credits: (3)**
- HTHS 1101 - Medical Terminology **Credits: (2)**
- HTHS 1103 - Introduction to Health Careers and Care in a Diverse Society **Credits: (3)**
- HTHS 1108 - Biocalculations for Health Professions **Credits: (5)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**
- MIS 1100 SS - The Digital Society **Credits: (3)**
- MFET 1210 - Machining Principles Lecture/Lab I **Credits: (3)**
- MFET 2150 - Metal Forming, Casting and Welding **Credits: (2)**
- MFET 2360 - Manufacturing Processes and Materials **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**
- MFET 2850 - CNC/CAM for Plastics and Composites Lecture/Lab **Credits: (3)**
- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 1303 - Sales Channels **Credits: (3)**
- PS 2182 - Credit and Collection Methods **Credits: (2)**
- PS 2383 - Retail Merchandising and Buying Methods **Credits: (3)**
- PS 2443 - Advertising Methods **Credits: (3)**
- PS 2603 - Advanced Selling Techniques **Credits: (3)**
- PS 2703 - Internet Sales and Service **Credits: (3)**
- NET 2010 - Business English Applications **Credits: (3)**
- WEB 2080 - Database Applications **Credits: (1)**
- NET 2200 - Microcomputer Operating Systems **Credits: (3)**
- NET 2300 - Introduction to LAN Management **Credits: (3)**
- WEB 2410 - Web Animation I **Credits: (3)**
- WEB 1010 - Exploring Web and User Experience **Credits: (3)**
- WEB 2200 - Image Editing **Credits: (3)**
- WEB 2300 - Video Editing **Credits: (3)**

### Technical Specialty Credit (30 credit hours)

Technical specialty credit for completing a third-party approved 900 hour or more certificate program from DATC or OWATC completed within 5 years prior to beginning the AAS program. Credit is applied after WSU graduation clearance for the AAS in General Technology.

## Manufacturing Engineering Technology (AAS)

### Areas of Emphasis

Select one of the following areas of emphasis

- Plastics and Composites Emphasis, Manufacturing Engineering Technology (AAS)
- Production Operations and Control Emphasis, Manufacturing Engineering Technology (AAS)
- Welding Emphasis, Manufacturing Engineering Technology (AAS)

# Mechanical Engineering Technology (AAS)

- **Grade Requirements:** A grade of "C" or better in all major courses and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements.
- **Credit Hour Requirements:** A total of 63 credits is required, 20 of which are within the Manufacturing and Mechanical Engineering Technology Department. Transfer students are required to take a minimum of 30 credit hours at Weber State University.

## Advisement

All Mechanical Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

## Admission Requirements

Declare your program of study. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. Computer & Information Literacy as defined in this catalog is also required for the AAS degree. Consult with your advisor for specific general education guidelines.

## Course Requirements for the AAS Degree

### MET Core and Support Courses Required (48 credit hours)

- MET 1000 - Introduction to Mechanical Engineering Technology and Design **Credits: (3)**
- MET 1500 - Mechanical Design Engineering **Credits: (3)**
- MET 2500 - Modern Engineering Technologies **Credits: (3)**
- MFET 2300 - Statics and Strength of Materials **Credits: (5)**
- MFET 2360 - Manufacturing Processes and Materials **Credits: (3)**
- EET 1850 - Industrial Electronics **Credits: (4)**
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- Computer and Information Literacy **(2)**
- MATH 1040 QL - Introduction to Statistics **Credits: (3)**
- MATH 1080 QL - Pre-calculus **Credits: (5)**
- MATH 1210 - Calculus I **Credits: (4)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

### Other General Education Support Courses Required (12-15 credit hours)

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- Gen Ed Creative Arts Elective **(3)**

# Plastics and Composites Emphasis, Manufacturing Engineering Technology (AAS)

## Manufacturing Engineering Technology

- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements.
- **Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas: the AAS in Manufacturing Engineering Technology with a Production Operations and Control Emphasis requires 66-68 credit hours, the AAS in Manufacturing Engineering Technology with a Welding Emphasis requires 63-65 credit hours, and the AAS in Manufacturing Engineering Technology with a Plastics and Composites Emphasis requires 63-65 credit hours. Transfer students are required to take a minimum of 20 credit hours at Weber State University.
- **Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see your advisor or your department for specific information regarding assessment.

### Advisement

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Associate of Applied Science requirements. Computer and Information Literacy as defined in this catalog is also required for the AAS degree. Consult with your advisor for specific general education guidelines.

## Course Requirements for the AAS Degree

### Core Courses (44-48 credit hours)

*AAS Degree requirements for an AAS Degree in Manufacturing Engineering Technology, Production Operations and Control Emphasis, an AAS Degree in Manufacturing Engineering Technology with a Welding Emphasis, or an AAS Degree in Manufacturing Engineering Technology with a Plastics and Composites Emphasis will be met by completing the first two years of the respective BS Degree. All AAS Degrees will have the following core courses in common. **Please see your academic advisor for additional general education requirements.***

### Manufacturing Engineering Technology Courses Required (15 credit hours)

- MFET 1000 - Manufacturing Engineering Technology Fundamentals **Credits: (3)**
- MFET 1210 - Machining Principles Lecture/Lab I **Credits: (3)**
- MFET 2310 - Statistics for Engineering Technology **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**

- MFET 2500 - Process Automation I **Credits: (1)**
- MFET 2510 - Process Automation I Lab **Credits: (2)**

#### Technical Courses Required (10 credit hours)

- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- DET 1160 - Geometric Dimensioning & Tolerancing Using 3D CAD **Credits: (3)**
- EET 1850 - Industrial Electronics **Credits: (4)**

#### Support Courses Required (19-21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**  
\* **Note: COMM 1020 or 2110 counts towards Gen Ed as Humanities (HU) credits**
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- PHYS 2010 PS - College Physics I **Credits: (5)** or
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- MATH 1060 - Trigonometry **Credits: (3)** or
- MATH 1080 QL - Pre-calculus **Credits: (5)**
- MATH 1110 - Calculus Concepts and Applications **Credits: (3)** or
- MATH 1210 - Calculus I **Credits: (4)**

#### Other Courses Required (3 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
- Computer Information Literacy **Credits (0.5 - 1)**  
\* *LIBS 1504 - Information Literacy Competency Exam OR LIBS 1704. Visit [weber.edu/cil](http://weber.edu/cil) for more information.*

## Additional Courses Required by Emphasis Area

#### Plastics and Composites Emphasis (9 credit hours)

- MFET 2320 - Mechanics of Materials **Credits: (3)**
- MFET 2850 - CNC/CAM for Plastics and Composites Lecture/Lab **Credits: (3)**
- MFET 2860 - Plastics/Composites Materials & Properties **Credits: (3)**

### Note:

\* *These courses will also fulfill general education requirements.*

# Product Design and Development: An Engineering Technology (AAS)

- **Grade Requirements:** A grade of "C" or better in all required technical courses, and support courses (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher.
- **Credit Hour Requirements:** 64-66 total hours (depending on which math option is chosen) are required (24) of which are required within the Product Design and Development: An Engineering Technology AAS program. A minimum of 20 hours in residency (WSU courses).

## Advisement

All Product Design and Development: An Engineering Technology students are required to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6305 for more information or to schedule an appointment. Advisement may also be obtained in Engineering Technology, room 214.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

## General Education

Refer to the Degree Requirements for Associate of Applied Science requirements.

## Major Course Requirements for AAS Degree

Product Design and Development: An Engineering Technology Courses Required (24 credit hours)

- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- DET 1160 - Geometric Dimensioning & Tolerancing Using 3D CAD **Credits: (3)**
- ART 1110 - Drawing I **Credits: (3)**
- ART 1120 - Design Concepts **Credits: (3)**
- MFET 2150 - Metal Forming, Casting and Welding **Credits: (2)**
- MFET 2150L - Metal Forming, Casting & Welding Lab **Credits: (1)**
- DET 2460 - Product Design Fundamentals Using 3D CAD **Credits: (3)**
- DET 2650 - Product Design & Development **Credits: (3)**
- MFET 2440 - Computer Numeric Control (CNC) in Manufacturing **Credits: (2)**
- MFET 2440L - CNC in Manufacturing Lab **Credits: (1)**

Technical Support Courses Required (9 credit hours)

- MFET 1210 - Machining Principles Lecture/Lab I **Credits: (3)**
- DET 3460 - Parametric Design Graphics **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**

## Technical Electives (2 credit hours minimum)

*A minimum of 2 credit hours of technical electives chosen from the following list or approved by the program coordinator are required.*

- EET 1110 - Basic Electronics **Credits: (2)**
- EET 1140 - DC Circuits **Credits: (3)** \*
- EET 1850 - Industrial Electronics **Credits: (4)**
- DET 2830 - Directed Readings **Credits: (1-3)**
  
- MFET 2670 - GMA, FCA and GTA Welding **Credits: (1)** and
- MFET 2670L - GMA, FCA and GTA Welding Lab **Credits: (2)**
  
- MET 1000 - Introduction to Mechanical Engineering Technology and Design **Credits: (3)**
- MFET 2860 - Plastics/Composites Materials & Properties **Credits: (3)**
- MFET 2870 - Design of Plastics/Composites Products **Credits: (3)**  
*\*see department to determine if pre-requisite override is possible*

## Support Courses Required (29-31 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
  
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
  
- MATH 1080 QL - Pre-calculus **Credits: (5)** or
- MATH 1050 QL - College Algebra **Credits: (4)**  
**and**
- MATH 1060 - Trigonometry **Credits: (3)**
  
- CHEM 1010 PS - Introductory Chemistry **Credits: (3)**
- PHYS 2010 PS - College Physics I **Credits: (5)**
- LIBS 1704 - Information Navigator **Credits: (1)**
- Creative Arts Elective (3)\*
- Social Science Elective (3)\*
- American Institutions (3)\*  
*\*These courses will also fulfill general education requirements.*

# Production Operations and Control Emphasis, Manufacturing Engineering Technology (AAS)

## Manufacturing Engineering Technology

- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements.
- **Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas: the AAS in Manufacturing Engineering Technology with a Production Operations and Control Emphasis requires 66-68

credit hours, the AAS in Manufacturing Engineering Technology with a Welding Emphasis requires 63-65 credit hours, and the AAS in Manufacturing Engineering Technology with a Plastics and Composites Emphasis requires 63-65 credit hours. Transfer students are required to take a minimum of 20 credit hours at Weber State University.

- **Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see your advisor or your department for specific information regarding assessment.

## Advisement

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. Computer and Information Literacy as defined in this catalog is also required for the AAS degree. Consult with your advisor for specific general education guidelines.

## Course Requirements for the AAS Degree

### Core Courses (44-48 credit hours)

*AAS Degree requirements for an AAS Degree in Manufacturing Engineering Technology, Production Operations and Control Emphasis, an AAS Degree in Manufacturing Engineering Technology with a Welding Emphasis, or an AAS Degree in Manufacturing Engineering Technology with a Plastics and Composites Emphasis will be met by completing the first two years of the respective BS Degree. All AAS Degrees will have the following core courses in common. Please see your academic advisor for additional general education requirements.*

### Manufacturing Engineering Technology Courses Required (15 credit hours)

- MFET 1000 - Manufacturing Engineering Technology Fundamentals **Credits: (3)**
- MFET 1210 - Machining Principles Lecture/Lab I **Credits: (3)**
- MFET 2310 - Statistics for Engineering Technology **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**
- MFET 2500 - Process Automation I **Credits: (1)**
- MFET 2510 - Process Automation I Lab **Credits: (2)**

### Technical Courses Required (10 credit hours)

- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- DET 1160 - Geometric Dimensioning & Tolerancing Using 3D CAD **Credits: (3)**
- EET 1850 - Industrial Electronics **Credits: (4)**

#### Support Courses Required (19-21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**  
*\* Note: COMM 1020 or 2110 counts towards Gen Ed as Humanities (HU) credits*
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- PHYS 2010 PS - College Physics I **Credits: (5)** or
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- MATH 1060 - Trigonometry **Credits: (3)** or
- MATH 1080 QL - Pre-calculus **Credits: (5)**
- MATH 1110 - Calculus Concepts and Applications **Credits: (3)** or
- MATH 1210 - Calculus I **Credits: (4)**

#### Other Courses Required (3 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
- Computer Information Literacy **Credits (0.5 - 1)**  
*\* LIBS 1504 - Information Literacy Competency Exam OR LIBS 1704. Visit [weber.edu/cil](http://weber.edu/cil) for more information.*

## Additional Courses Required by Emphasis Area

#### Production Operations and Control Emphasis (12 credit hrs)

- MFET 2150 - Metal Forming, Casting and Welding **Credits: (2)** and
- MFET 2150L - Metal Forming, Casting & Welding Lab **Credits: (1)**
- MFET 2320 - Mechanics of Materials **Credits: (3)**
- MFET 2440 - Computer Numeric Control (CNC) in Manufacturing **Credits: (2)** and
- MFET 2440L - CNC in Manufacturing Lab **Credits: (1)**
- DET 2460 - Product Design Fundamentals Using 3D CAD **Credits: (3)**

### Note:

*\* These courses will also fulfill general education requirements.*

# Welding Emphasis, Manufacturing Engineering Technology (AAS)

## Manufacturing Engineering Technology

- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements.
- **Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas: the AAS in Manufacturing Engineering Technology with a Production Operations and Control Emphasis requires 66-68 credit hours, the AAS in Manufacturing Engineering Technology with a Welding Emphasis requires 63-65 credit hours, and the AAS in Manufacturing Engineering Technology with a Plastics and Composites Emphasis requires 63-65 credit hours. Transfer students are required to take a minimum of 20 credit hours at Weber State University.
- **Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see your advisor or your department for specific information regarding assessment.

### Advisement

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Associate of Applied Science requirements. Computer and Information Literacy as defined in this catalog is also required for the AAS degree. Consult with your advisor for specific general education guidelines.

## Course Requirements for the AAS Degree

### Core Courses (44-48 credit hours)

*AAS Degree requirements for an AAS Degree in Manufacturing Engineering Technology, Production Operations and Control Emphasis, an AAS Degree in Manufacturing Engineering Technology with a Welding Emphasis, or an AAS Degree in Manufacturing Engineering Technology with a Plastics and Composites Emphasis will be met by completing the first two years of the respective BS Degree. All AAS Degrees will have the following core courses in common. **Please see your academic advisor for additional general education requirements.***

### Manufacturing Engineering Technology Courses Required (15 credit hours)

- MFET 1000 - Manufacturing Engineering Technology Fundamentals **Credits: (3)**
- MFET 1210 - Machining Principles Lecture/Lab I **Credits: (3)**
- MFET 2310 - Statistics for Engineering Technology **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**

- MFET 2500 - Process Automation I **Credits: (1)**
- MFET 2510 - Process Automation I Lab **Credits: (2)**

#### Technical Courses Required (10 credit hours)

- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- DET 1160 - Geometric Dimensioning & Tolerancing Using 3D CAD **Credits: (3)**
- EET 1850 - Industrial Electronics **Credits: (4)**

#### Support Courses Required (19-21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**  
\* **Note: COMM 1020 or 2110 counts towards Gen Ed as Humanities (HU) credits**
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- PHYS 2010 PS - College Physics I **Credits: (5)** or
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- MATH 1060 - Trigonometry **Credits: (3)** or
- MATH 1080 QL - Pre-calculus **Credits: (5)**
- MATH 1110 - Calculus Concepts and Applications **Credits: (3)** or
- MATH 1210 - Calculus I **Credits: (4)**

#### Other Courses Required (3 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
- Computer Information Literacy **Credits (0.5 - 1)**  
\* *LIBS 1504 - Information Literacy Competency Exam OR LIBS 1704. Visit [weber.edu/cil](http://weber.edu/cil) for more information.*

## Additional Courses Required by Emphasis Area

#### Welding Emphasis (9 credit hours)

- MFET 2150 - Metal Forming, Casting and Welding **Credits: (2)** and
- MFET 2150L - Metal Forming, Casting & Welding Lab **Credits: (1)**
- DET 2460 - Product Design Fundamentals Using 3D CAD **Credits: (3)**
- MFET 2670 - GMA, FCA and GTA Welding **Credits: (1)** and
- MFET 2670L - GMA, FCA and GTA Welding Lab **Credits: (2)**

### Note:

\* *These courses will also fulfill general education requirements.*

# Solar Photovoltaic Systems Certificate of Proficiency

- **Grade Requirements:** A grade of "C" or better in all the following five EET courses is required for this institutional certificate (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 18 credit hours of EET courses list below (EET 1140 or EET 1850, EET 2180, EET 2190, EET 3100, and EET 3180). No minimum GPA is required for this certificate.

## Required Courses (minimum 18 credit hours)

- EET 1140 - DC Circuits **Credits: (3)** or
- EET 1850 - Industrial Electronics **Credits: (4)**
  
- EET 2180 - Solar PV Systems **Credits: (4)**
- EET 2190 - Solar PV Technical Assessments **Credits: (4)**
- EET 3100 - Renewable Energy **Credits: (3)**
- EET 3180 - Advanced Solar PV Systems **Credits: (4)**

## Electronics Engineering Technology (BS)

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all EET and support courses is required for this major (a grade of "C-" is not acceptable). Students must have an overall GPA of 2.5 or higher to graduate.
- **Credit Hour Requirements:** A total of 122 credit hours is required for graduation. A total of 40 upper division credit hours is also required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at Weber State University.

### Advisement

All Electronics Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 to schedule an appointment.

### Admission Requirements

See the department secretary to declare your program of study (major - see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Bachelor of Science degrees. Consult with your advisor for specific general education guidelines.

## Course Requirements for EET BS Degree

### Required Lower-Division EET Courses (37 credit hours)

- EET 1110 - Basic Electronics **Credits: (2)**

- EET 1130 - Digital Systems **Credits: (4)**
- EET 1140 - DC Circuits **Credits: (3) \***
- EET 2010 - AC Circuits **Credits: (3)**
- EET 2110 - Semiconductor Circuits **Credits: (4)**
  
- EET 2120 - Power and Motors **Credits: (4)** or
- EET 2180 - Solar PV Systems **Credits: (4) \*** or
- EET 2190 - Solar PV Technical Assessments **Credits: (4) \***
  
- EET 2130 - PC Board Design **Credits: (3)**
- EET 2140 - Communications Systems **Credits: (4)**
- EET 2150 - Embedded Controllers **Credits: (4)**
- EET 2160 - Troubleshooting **Credits: (3)**
- EET 2170 - Industrial Controls **Credits: (3)**

*\* Course qualified for Solar Photovoltaic Systems Institutional Certificate*

#### Required Upper-Division EET Courses (28 credit hours)

- EET 3010 - Circuit Analysis **Credits: (4)**
- EET 3030 - FPGA and ASIC Design **Credits: (4)**
- EET 3040 - Instrumentation and Measurements **Credits: (4)**
- EET 3090 - Project Management **Credits: (2)**
- EET 4010 - Senior Project I **Credits: (2)**
- EET 4020 - Senior Project II **Credits: (2)**
- EET 4030 - Controls & Systems **Credits: (4)**
- EET 4040 - Signals and Systems **Credits: (4)**
- EET 4890 - Cooperative Work Experience **Credits: (2)**

#### Elective Upper-Division EET Courses (7 credit hours required)

- EET 3100 - Renewable Energy **Credits: (3) \***
- EET 3180 - Advanced Solar PV Systems **Credits: (4) \***
- EET 4060 - Advanced Communications **Credits: (4)**
- EET 4090 - Systems Design and Integration **Credits: (3)**
- MFET 4580 - Process Automation II & Robotics **Credits: (1)**
- MFET 4585 - Process Automation II Lab **Credits: (2)**
- MFET 4850 - Integration of Automated Systems **Credits: (3)**
- EET 4900 - Special Topics **Credits: (1-4)**

*\* Course qualified for Solar Photovoltaic Systems Institutional Certificate*

#### Required Support and General Education Courses (47-52 credit hours)

- MATH 1080 QL - Pre-calculus **Credits: (5)**  
*or both*
- MATH 1050 QL - College Algebra **Credits: (4)** and
- MATH 1060 - Trigonometry **Credits: (3)**
  
- MATH 1210 - Calculus I **Credits: (4)**

- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)** or
- MATH 1040 QL - Introduction to Statistics **Credits: (3)**
  
- PS 3203 - Customer Service Techniques **Credits: (3)** or
- MFET 3550 - Manufacturing Supervision **Credits: (3)** or
- BSAD 3000 - Small Business Management **Credits: (3)**
  
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*
  
- ENGL 3100 - Professional and Technical Writing **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)**
  
- Gen Ed Life Science (4)
- Gen Ed Social Science (Diversity) (6)
- Gen Ed Creative Arts/Humanities (Diversity) (6)
- Computer Literacy (2)

## Manufacturing Engineering Technology (BS)

### Areas of Emphasis

Select one of the following areas of emphasis

- Plastics and Composites Emphasis, Manufacturing Engineering Technology (BS)
- Production Operations and Control Emphasis, Manufacturing Engineering Technology (BS)
- Welding Emphasis, Manufacturing Engineering Technology (BS)

## Mechanical Engineering Technology (BS)

- **Program Prerequisite:** Complete the requirements for the AAS Degree in Mechanical Engineering Technology.
- **Minor:** Not Required.
- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements section of this catalog.
- **Credit Hour Requirements:** A total of 124 credit hours is required for graduation. A total of 40 upper division credits is also required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at Weber State University.

## Advisement

All Mechanical Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626- 6305 for the name of your advisor and to schedule an appointment.

## Admission Requirements

Declare your program of study. Refer to the Program Prerequisite listed above. There are no additional special admission or application requirements for this program.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. Consult with your advisor for specific general education guidelines.

## Major Course Requirements for BS Degree

*To be taken in addition to the courses required for the AAS Degree in Mechanical Engineering Technology*

### Mechanical Engineering Technology Courses Required (31 credit hours)

- MET 3050 - Dynamics **Credits: (3)**
- MET 3150 - Engineering Technology Materials **Credits: (3)**
- MET 3300 - Computer Programming Applications of Mechanical Engineering Technology **Credits: (3)**
- MET 3400 - Machine Design **Credits: (3)**
- MET 3500 - Mechanical Measurements and Instrumentation **Credits: (3)**
- MET 3700 - Testing and Failure Analysis **Credits: (3)**
- MET 4200 - Mechanical Design with FEA **Credits: (3)**
  
- MET 4500 - Senior Project **Credits: (3)** or
- MET 4510 - Senior Project **Credits: (3)**
  
- MET 4650 - Thermal Science **Credits: (3)**
- MET 4990 - Seminar in Mechanical Engineering Technology **Credits: (1)**

### Support Courses Required (9 credit hours)

- MFET 1210 - Machining Principles Lecture/Lab I **Credits: (3)**
  
- MFET 3340 - Applied Fluid Power **Credits: (2)** and
- MFET 3340L - Applied Fluid Power Lab **Credits: (1)**
  
- PS 3250 - Business Communication **Credits: (3)** or
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**

### Technical Electives (9 credit hours)

*A minimum of 9 credit hours of technical electives chosen from the following list are required. At least 3 credit hours must be upper division.*

- DET 2650 - Product Design & Development **Credits: (3)**

- DET 3470 - Introduction to CATIA V5 **Credits: (3)**
- DET 4470 - Advanced CATIA V5 **Credits: (3)**
- MATH 2210 - Calculus III **Credits: (4)**
- MATH 2270 - Elementary Linear Algebra **Credits: (3)**
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**
- MET 4800 - Individual Research in Mechanical Engineering Technology **Credits: (1-3)**
- MET 4890 - Cooperative Work Experience **Credits: (1-3)**
- MET 4300 - Heating, Ventilating & Air Conditioning **Credits: (3)**
- MFET 2410 - Quality Concepts and Statistical Applications **Credits: (3)**
- MFET 3010 - Tool Design **Credits: (3)**
  
- MFET 3350 - Plastic and Composite Manufacturing **Credits: (2)** and
- MFET 3350L - Plastic and Composite Manufacturing Lab **Credits: (2)**
  
- MFET 3460 - Engineering Design using Solid Modeling **Credits: (2)** and
- MFET 3460L - Engineering Design using Solid Modeling Lab **Credits: (1)**
  
- MFET 3750 - Welding Metallurgy I **Credits: (2)**
- MFET 3820 - Nondestructive Testing **Credits: (3)**
- MFET 4310 - Corrosion and Corrosion Control **Credits: (2)**
- PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

#### Other Required Courses (12 credit hours)

- Gen Ed Humanities Elective **(3)**
- Gen Ed Social Science Diversity Elective **(3)**
- Gen Ed Life Science Elective **(3)**
- Gen Ed American Institutions Elective **(3)**

## Plastics and Composites Emphasis, Manufacturing Engineering Technology (BS)

### Manufacturing Engineering Technology

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements section of this catalog. Seniors may petition to have one C- allowed in major and support courses. Approval from the Program Coordinator and Department Chair is required.
- **Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas: the BS in Manufacturing Engineering Technology with a Production Operations and Control Emphasis requires 126.5 credit hours, the BS in Manufacturing Engineering Technology with a Welding Emphasis requires 123.5 credit hours, and the BS in Manufacturing Engineering Technology with a Plastics and Composites Emphasis requires 125.5 credit hours. A total of 40 upper division credit hours is also required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at Weber State University.

## Advisement

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Refer to the Program Prerequisite on the previous page. There are no additional special admission or application requirements for this program.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. Consult with your advisor for specific general education guidelines.

## Major Course Requirements for BS Degree

### Plastics and Composites Emphasis

*To be taken in addition to the courses required for the AAS Degree in Manufacturing Engineering Technology with a Plastics and Composites Emphasis.*

Manufacturing Engineering Technology Courses Required (48.5 credit hours)

- MFET 2870 - Design of Plastics/Composites Products **Credits: (3)**
- MFET 3340 - Applied Fluid Power **Credits: (2)** and
- MFET 3340L - Applied Fluid Power Lab **Credits: (1)**
- MFET 3350 - Plastic and Composite Manufacturing **Credits: (2)** and
- MFET 3350L - Plastic and Composite Manufacturing Lab **Credits: (2)**
- MFET 3550 - Manufacturing Supervision **Credits: (3)**
- MFET 3620 - Senior Capstone Project Planning **Credits: (.5)**
- MFET 3830 - Reinforced Plastics/Advanced Composite Lecture/Lab **Credits: (3)**
- MFET 3870 - Mold Design and Process Strategies Lecture/Lab **Credits: (3)**
- MFET 4580 - Process Automation II & Robotics **Credits: (1)** and
- MFET 4585 - Process Automation II Lab **Credits: (2)**
- MSE 4590 - Lean Manufacturing Systems **Credits: (3)**
- MFET 4610 - Senior Project Planning & Estimating **Credits: (3)**
- MFET 4610L - Senior Project Lab **Credits: (2-2)**
- MFET 4620L - Senior Project Lab **Credits: (2-2)**
- MFET 4995 - Certified Manufacturing Technologist (CMfgT) Exam Review **Credits: (1)**
- MET 3150 - Engineering Technology Materials **Credits: (3)**
- MET 4650 - Thermal Science **Credits: (3)**
- MSE 3700 - Manufacturing Systems I **Credits: (3)**
- MSE 3850 - Statistical Process Control and Reliability **Credits: (3)**
- MSE 3910 - Six Sigma Methods and Tools in Manufacturing **Credits: (4)**

Technical Electives (2 credit hours minimum)

*A minimum of 2 credit hours of technical electives chosen from the following list are required.*

- DET 3470 - Introduction to CATIA V5 **Credits: (3)**
- MFET 3460 - Engineering Design using Solid Modeling **Credits: (2)** and
- MFET 3460L - Engineering Design using Solid Modeling Lab **Credits: (1)**
- MFET 3710 - Computer Aided Manufacturing and Rapid Prototyping **Credits: (2)** and
- MFET 3710L - Computer Aided Manufacturing and Rapid Prototyping Lab **Credits: (1)**
- MFET 3890 - Cooperative Work Experience **Credits: (1-3)** or
- MFET 4890 - Cooperative Work Experience **Credits: (1-3)**
- PS 3702 - Developing Team Leadership Skills **Credits: (2)**
- Other classes approved by your MFET advisor

## **Product Design and Development: An Engineering Technology (BS)**

- **Program Prerequisite:** Complete AAS degree in Product Design and Development: An Engineering Technology from Weber State University or equivalent degree or coursework from an accredited AAS program.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all required technical courses, and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements section of this catalog.
- **Credit Hour Requirements:** A total of 124-126 credit hours (depending on which math option is chosen) is required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above.) A minimum of 30 hours in residency (WSU courses).

### **Advisement**

All four-year design engineering technology students are required to meet at least annually with a faculty advisor for course and program advisement. Call 801-626-6305 for more information or to schedule an appointment. Advisement may also be obtained in Engineering Technology, room 214.

### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information). Refer to the Program Prerequisite in the previous column. There are no additional special admissions or application requirements for this program.

### **General Education**

Refer to the Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree

*To be taken in addition to the requirements for the Product Design and Development: An Engineering Technology (AAS).*

### Product Design and Development: An Engineering Technology Courses Required (31 credit hours)

- MET 3150 - Engineering Technology Materials **Credits: (3)**
- DET 3100 - Tool Design **Credits: (3)**
- DET 3300 - Applied Kinematic Analysis **Credits: (3)**
- DET 3400 - Rendering Basics (Photoshop/3ds Max) **Credits: (3)**
- DET 3470 - Introduction to CATIA V5 **Credits: (3)**
  
- MFET 3710 - Computer Aided Manufacturing and Rapid Prototyping **Credits: (2)** and
- MFET 3710L - Computer Aided Manufacturing and Rapid Prototyping Lab **Credits: (1)**
  
- DET 4400 - Animation Basics (3ds Max) **Credits: (3)**
- DET 4470 - Advanced CATIA V5 **Credits: (3)**
- DET 4500 - Hydraulic and Pneumatic Applications **Credits: (3)**
- DET 4600 - Senior Project I (Design) **Credits: (2)**
- DET 4610 - Senior Project II (Build) **Credits: (2)**

### Technical Support Courses Required (15 credit hours)

- MFET 2310 - Statistics for Engineering Technology **Credits: (3)**
- MFET 2320 - Mechanics of Materials **Credits: (3)**
- MET 3400 - Machine Design **Credits: (3)**
- MFET 3550 - Manufacturing Supervision **Credits: (3)**
- MFET 4610 - Senior Project Planning & Estimating **Credits: (3)**

### Technical Electives (6 credit hours minimum)

*A minimum of 6 credit hours of upper division technical electives chosen from the following list or approved by the program coordinator are required.*

- DET 4830 - Directed Readings **Credits: (1-3)**
- DET 4890 - Cooperative Work Experience **Credits: (1-3)**
- MET 3500 - Mechanical Measurements and Instrumentation **Credits: (3)**
  
- MFET 3340 - Applied Fluid Power **Credits: (2)** and
- MFET 3340L - Applied Fluid Power Lab **Credits: (1)**
  
- MFET 3350 - Plastic and Composite Manufacturing **Credits: (2)** and
- MFET 3350L - Plastic and Composite Manufacturing Lab **Credits: (2)**
  
- MFET 3460 - Engineering Design using Solid Modeling **Credits: (2)** and
- MFET 3460L - Engineering Design using Solid Modeling Lab **Credits: (1)**
  
- MSE 3850 - Statistical Process Control and Reliability **Credits: (3)**
- PS 3250 - Business Communication **Credits: (3)**
- EET 3040 - Instrumentation and Measurements **Credits: (4)**

## Support Courses Required (9 credit hours)

*A minimum of 3 credit hours of Social Science/Diversity electives must be selected from the following list:*

- ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)**
- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**
- HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**
- Humanities Electives (3)\*
- Life Science Elective (3)\*

*\*These courses will also fulfill general education requirements.*

# Production Operations and Control Emphasis, Manufacturing Engineering Technology (BS)

## Manufacturing Engineering Technology

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements section of this catalog. Seniors may petition to have one C- allowed in major and support courses. Approval from the Program Coordinator and Department Chair is required.
- **Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas: the BS in Manufacturing Engineering Technology with a Production Operations and Control Emphasis requires 126.5 credit hours, the BS in Manufacturing Engineering Technology with a Welding Emphasis requires 123.5 credit hours, and the BS in Manufacturing Engineering Technology with a Plastics and Composites Emphasis requires 125.5 credit hours. A total of 40 upper division credit hours is also required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at Weber State University.

### Advisement

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). Refer to the Program Prerequisite on the previous page. There are no additional special admission or application requirements for this program.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. Consult with your advisor for specific general education guidelines.

# Major Course Requirements for BS Degree

## Production Operations and Control Emphasis

*To be taken in addition to the courses required for the AAS Degree in Manufacturing Engineering Technology with a Production Operations and Control Emphasis.*

Required Courses for Major (45.5 credit hours)

- MFET 3340 - Applied Fluid Power **Credits: (2)** and
- MFET 3340L - Applied Fluid Power Lab **Credits: (1)**
  
- MFET 3350 - Plastic and Composite Manufacturing **Credits: (2)** and
- MFET 3350L - Plastic and Composite Manufacturing Lab **Credits: (2)**
  
- MFET 3550 - Manufacturing Supervision **Credits: (3)**
- MFET 3620 - Senior Capstone Project Planning **Credits: (.5)**
  
- MFET 3710 - Computer Aided Manufacturing and Rapid Prototyping **Credits: (2)** and
- MFET 3710L - Computer Aided Manufacturing and Rapid Prototyping Lab **Credits: (1)**
  
- MFET 4580 - Process Automation II & Robotics **Credits: (1)** and
- MFET 4585 - Process Automation II Lab **Credits: (2)**
  
- MFET 4610 - Senior Project Planning & Estimating **Credits: (3)**
- MFET 4610L - Senior Project Lab **Credits: (2-2)**
- MFET 4620L - Senior Project Lab **Credits: (2-2)**
- MFET 4995 - Certified Manufacturing Technologist (CMfgT) Exam Review **Credits: (1)**
- MET 3150 - Engineering Technology Materials **Credits: (3)**
- MET 3400 - Machine Design **Credits: (3)**
- MSE 3700 - Manufacturing Systems I **Credits: (3)**
- MSE 3850 - Statistical Process Control and Reliability **Credits: (3)**
- MSE 3910 - Six Sigma Methods and Tools in Manufacturing **Credits: (4)**
- MSE 4590 - Lean Manufacturing Systems **Credits: (3)**
- DET 3100 - Tool Design **Credits: (3)**

Technical Electives (3 credit hours)

*A minimum of 3 credit hours of technical electives chosen from the following list are required.*

- DET 3460 - Parametric Design Graphics **Credits: (3)**
- DET 3470 - Introduction to CATIA V5 **Credits: (3)**
- MFET 2850 - CNC/CAM for Plastics and Composites Lecture/Lab **Credits: (3)**
- MFET 2860 - Plastics/Composites Materials & Properties **Credits: (3)**
- MFET 2870 - Design of Plastics/Composites Products **Credits: (3)**
  
- MFET 3460 - Engineering Design using Solid Modeling **Credits: (2)** and
- MFET 3460L - Engineering Design using Solid Modeling Lab **Credits: (1)**
  
- MFET 3830 - Reinforced Plastics/Advanced Composite Lecture/Lab **Credits: (3)**
  
- MFET 3890 - Cooperative Work Experience **Credits: (1-3)** or

- MFET 4890 - Cooperative Work Experience **Credits: (1-3)**
- MFET 4850 - Integration of Automated Systems **Credits: (3)**
- PS 3103 - Sales Personalities and Profiles **Credits: (3)**
- PS 4203 - Ethical Sales and Service **Credits: (3)**
- Other classes approved by your MFET advisor

Note:

*Please note that there are additional General Education requirements to complete the degree.*

## **Welding Emphasis, Manufacturing Engineering Technology (BS)**

### **Manufacturing Engineering Technology**

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in all major courses, support courses, and technical electives is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation in the Degree Requirements section of this catalog. Seniors may petition to have one C- allowed in major and support courses. Approval from the Program Coordinator and Department Chair is required.
- **Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas: the BS in Manufacturing Engineering Technology with a Production Operations and Control Emphasis requires 126.5 credit hours, the BS in Manufacturing Engineering Technology with a Welding Emphasis requires 123.5 credit hours, and the BS in Manufacturing Engineering Technology with a Plastics and Composites Emphasis requires 125.5 credit hours. A total of 40 upper division credit hours is also required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at Weber State University.

#### **Advisement**

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

#### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information). Refer to the Program Prerequisite on the previous page. There are no additional special admission or application requirements for this program.

#### **General Education**

Refer to Degree Requirements for Bachelor of Science requirements. Consult with your advisor for specific general education guidelines.

## Major Course Requirements for BS Degree

### Welding Emphasis

*To be taken in addition to the courses required for the AAS Degree in Manufacturing Engineering Technology with a Welding Emphasis .*

Manufacturing Engineering Technology Courses Required (42.5 credit hours)

- MFET 2320 - Mechanics of Materials **Credits: (3)**
- MFET 3060 - Codes, Weld Inspection, and Quality Assurance **Credits: (3)**
- MFET 3550 - Manufacturing Supervision **Credits: (3)**
- MFET 3620 - Senior Capstone Project Planning **Credits: (.5)**
  
- MFET 3630 - Fusion Joining and Brazing Processes **Credits: (2)** and
- MFET 3630L - Fusion Joining and Brazing Processes **Credits: (1)**
  
- MFET 3750 - Welding Metallurgy I **Credits: (2)** and
- MFET 3750L - Welding Metallurgy I Lab **Credits: (1)**
  
- MFET 3760 - Welding Metallurgy II **Credits: (2)** and
- MFET 3760L - Welding Metallurgy II Lab **Credits: (1)**
  
- MFET 3820 - Nondestructive Testing **Credits: (3)**
- MFET 4090 - Welding Power Sources **Credits: (2)**
- MFET 4315 - Welding Robotics **Credits: (2)**
- MFET 4610 - Senior Project Planning & Estimating **Credits: (3)**
- MFET 4610L - Senior Project Lab **Credits: (2-2)**
- MFET 4620L - Senior Project Lab **Credits: (2-2)**
- MFET 4995 - Certified Manufacturing Technologist (CMfgT) Exam Review **Credits: (1)**
- MSE 3850 - Statistical Process Control and Reliability **Credits: (3)**
- MSE 3910 - Six Sigma Methods and Tools in Manufacturing **Credits: (4)**
- MSE 4590 - Lean Manufacturing Systems **Credits: (3)**

Technical Electives (6 credit hours minimum)

*A minimum of 6 credit hours of technical electives chosen from the following list are required.*

- DET 3470 - Introduction to CATIA V5 **Credits: (3)**
  
- MFET 3350 - Plastic and Composite Manufacturing **Credits: (2)** and
- MFET 3350L - Plastic and Composite Manufacturing Lab **Credits: (2)**
  
- MFET 3460 - Engineering Design using Solid Modeling **Credits: (2)** and
- MFET 3460L - Engineering Design using Solid Modeling Lab **Credits: (1)**
  
- MFET 3890 - Cooperative Work Experience **Credits: (1-3)** or
- MFET 4890 - Cooperative Work Experience **Credits: (1-3)**
  
- PS 3702 - Developing Team Leadership Skills **Credits: (2)**
- Other classes approved by your MFET advisor

# Design Engineering Technology (Architectural Technology Track) (BIS)

- **Program Prerequisite:** Refer to the Bachelor of Integrated Studies Program for the general and specific requirements for the BIS degree.
- **Credit Hour Requirements:** A total of 27 credit hours of courses + 6 credit hours of capstone project are required for portion of the degree.

The Engineering Technology department offers the following courses to prepare a student to enter into the Architecture, Engineering and Construction (AEC) industry. The following course indicated with an (\*) prepare one to take the Revit Certified Associate Exam and receive the certificate. The following courses indicated with an (\*\*) prepare one to take the Revit Certified Professional Exam and receive the certificate. The following course indicated with (\*\*\*) prepare one to take the LEED GA Professional Exam and receive the credential. In addition, if these courses are taken in conjunction with the other courses listed below or other courses approved by the department chair, all of these may then be used to fill one of the three areas required for a Bachelor of Integrated Studies degree. The courses must be taken for credit and the area of emphasis will be in Design Engineering Technology (Architectural TechnologyTrack).

*The course of study described below must be approved by the Engineering Technology department chair.*

## Course Requirements

### Design Engineering Technology Courses Required (28 or 30 credit hours)

- BDC 1040 - Introduction to Building Design & Construction **Credits: (3)**
- BDC 1350 - Residential Design & Codes **Credits: (3)**
- BDC 2000 - Commercial Design & Codes **Credits: (3)** \*
- BDC 3660 - Structural Design & Detailing **Credits: (3)**
- BDC 3000 - Sustainable Building Design & Codes **Credits: (3)** \*\*\*
- DET 3400 - Rendering Basics (Photoshop/3ds Max) **Credits: (3)**
- BDC 4350 - BIM Management & Coordination **Credits: (3)** \*\*
- DET 4400 - Animation Basics (3ds Max) **Credits: (3)**
  
- DET 4600 - Senior Project I (Design) **Credits: (2)** \*\*\*\* or
- BIS 3800 - BIS Capstone and Graduation Preparation **Credits: (3)** \*\*\*\*
  
- DET 4610 - Senior Project II (Build) **Credits: (2)** \*\*\*\* or
- BIS 4800 - Bachelor of Integrated Studies Senior Capstone **Credits: (3)** \*\*\*\*

Note:

\*\*\*\*Students should be advised that they will be required to do additional work to tie in the other two legs if the project does not already lend itself to this requirement. (This is reflected in the credit hour differential of 3 for the BIS 3800 and BIS 4800 courses that are co-listed with our DET 4600 & DET 4610 courses that are only 2 credit hours).

# Production and Inventory Control (APICS) Emphasis (BIS)

- **Program Prerequisite:** Refer to the Bachelor of Integrated Studies Program for the general and specific requirements for the BIS degree.
- **Credit Hour Requirements:** A total of 18 credit hours of courses is required for the APICS emphasis portion of this degree.

## BIS Option in Production and Inventory Control

The Manufacturing Engineering Technology department offers those courses required by APICS The Association for Operations Management for a continuing education certificate in Production and Inventory Control Technology. The following courses indicated with an asterisk (\*) prepare one to take the APICS Certification Exam as well as receive the above certificate. In addition, if these courses are taken in conjunction with the other courses listed below or other courses approved by the department chair, all of these may then be used to fill one of the three areas required for a Bachelor of Integrated Studies degree. The courses must be taken for credit and the area of emphasis will be in Production and Inventory Control (not Manufacturing Engineering Technology).

*The course of study described below must be approved by the MFET department chair.*

## Course Requirements for BIS Emphasis

### Manufacturing Engineering Technology Courses Required (18 credit hours)

- MFET 3510 - Basics of Supply Chain Management **Credits: (2) \***
- MFET 3550 - Manufacturing Supervision **Credits: (3)**
- MFET 4050 - Detailed Scheduling and Planning I **Credits: (2) \***
- MFET 4150 - Execution and Control of Operations **Credits: (2) \***
- MFET 4250 - Detailed Scheduling and Planning **Credits: (2) \***
- MFET 4750 - Master Planning of Resources **Credits: (2) \***
- MFET 4770 - Strategic Management of Resources **Credits: (2) \***
- Electives to be determined by an MFET Advisor **(3)**

Note:

*\* Online course*

## Building Design & Construction Minor

The Building Design & Construction (BDC) minor prepares graduates to enter careers in the design, construction, operation or maintenance of the built environment. Graduates are prepared for careers in the building design, construction, testing, operation, and maintenance of building systems; they have the abilities to produce and utilize basic construction documents and to perform basic analysis and design of system components. Baccalaureate degree graduates will have the technical and managerial skills necessary for careers in which they will analyze and design systems, specify project methods and materials, perform cost estimates and analyses, and manage technical activities in support of building projects.

The BDC minor will allow students to prepare for job opportunities working for residential design firms and builders, commercial architectural design firms and contractors; trade contractors and engineering firms such as mechanical, electrical, and plumbing; civil engineering firms; and various other firms related to the construction of the built environment. It provides an alternative pathway for those interested in continuing their graduate education in various disciplines relating to the built environment.

**Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A minimum of 18 credit hours of BDC courses.

*This program offers students who major in another discipline the option to obtain a minor in Construction Management Technology (Building Design & Construction).*

## Course Requirements for Minor

BDC Courses Required (18 credit hours)

- BDC 1040 - Introduction to Building Design & Construction **Credits: (3)**
- BDC 1350 - Residential Design & Codes **Credits: (3)**
- BDC 2000 - Commercial Design & Codes **Credits: (3)**
- BDC 3660 - Structural Design & Detailing **Credits: (3)**
- BDC 3000 - Sustainable Building Design & Codes **Credits: (3)**
- BDC 4350 - BIM Management & Coordination **Credits: (3)**

## Electronics Engineering Technology Minor

- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 24 credit hours of EET courses.

*This program offers students who major in another discipline the option to obtain a minor in Electronics Engineering Technology.*

## Course Requirements for Minor

EET Courses Required (24 credit hours)

- EET 1110 - Basic Electronics **Credits: (2)**
- EET 1130 - Digital Systems **Credits: (4)**
- EET 1140 - DC Circuits **Credits: (3)**
- EET 2010 - AC Circuits **Credits: (3)**
  
- EET 2110 - Semiconductor Circuits **Credits: (4)** or
- EET 2180 - Solar PV Systems **Credits: (4)** or
- EET 2190 - Solar PV Technical Assessments **Credits: (4)**
  
- EET 2150 - Embedded Controllers **Credits: (4)**

and one of the following courses:

- EET 3010 - Circuit Analysis **Credits: (4)**
- EET 3030 - FPGA and ASIC Design **Credits: (4)**
- EET 3040 - Instrumentation and Measurements **Credits: (4)**
  
- EET 3100 - Renewable Energy **Credits: (3)** and
- EET 4900 - Special Topics **Credits: (1-4)**

- EET 3180 - Advanced Solar PV Systems **Credits: (4)**
- EET 4060 - Advanced Communications **Credits: (4)**

## Design Engineering Technology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Electronics Engineering Technology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Quality and Lean Manufacturing Graduate Certificate

*The Graduate Institutional Certificate in Quality and Lean Manufacturing prepares students to take the ASQ green belt certification exam or to go on in the MSETM program at Oklahoma State University. Contact the Department of Engineering Technology for more information.*

- **Program Prerequisite:** Applicants must possess a bachelor's degree from a regionally accredited institution in an appropriate field and be working in industry.
- **Grade Requirements:** Students must receive a grade of B or better in every course.
- **Credit Hour Requirements:** 12 credit hours as specified below.

### Course Requirements for Graduate Certificate

Required Courses (12 credit hours)

- ETM 5913G - Six Sigma Tools I **Credits: (3)**
- ETM 5923G - Six Sigma Tools II **Credits: (3)**
- ETM 5933G - Lean Tools **Credits: (3)**
- ETM 5943G - Lean-Sigma Implementation **Credits: (3)**

# Department of Professional Sales

**Department Chair:** Blake Nielson

**Location:** Technical Education Building, Room 101

**Telephone Contact:** Angela Payan, 801-626-6913

**Professors:** Vel Casler, Desiree Cooper, Steven Eichmeier; **Associate Professors:** Tim Border, Jo Ellen Jonsson;

**Assistant Professors:** Kristen Arnold, Alex Lawrence, Blake Nielson; **Instructors:** Brock Adams, Jacie Johnson, Shauna Morris

The Department of Professional Sales offers associate of applied science degrees in the areas of Sales & Merchandising Technology and Interior Design and bachelor's degrees in Professional Sales and Interior Design - Professional Sales.

## Interior Design Technology

*Advisors: Kristen Arnold 801-395-3423*

Interior Design Technology is a program offered under the Department of Professional Sales. Interior Design Technology is a two-year program that prepares students for the four-year Interior Design Professional Sales degree. The two-year AAS degree provides student's academic preparation for employment as assistant designers, wholesale showrooms, and retail sales positions.

**The four-year Interior Design - Professional Sales (BS) degree is described here.**

## Sales and Merchandising

The sales and merchandising program is designed to prepare people for employment in selling at all levels of distribution and merchandising and middle management areas of retailing. Occupational opportunities include positions as salespeople (auto, insurance, real estate, etc.), middle management areas of sales managers and wholesale managers, retail salespeople, departmental managers, fashion coordinators, buyers, sales promotion managers, personnel directors, and display people. Students supplement their course work with practical on-the-job training in local business establishments, receiving college credit for their work experience.

## Professional Sales

This program prepares individuals to serve as agents or sales representatives in selling products/services to other businesses, plants, professionals, and public and private institutions. This program offers a professional sales emphasis tailored toward specific fields such as:

Manufacturing Rep    Communication System Rep

Pharmaceutical Rep    Medical Equipment Rep

Financial Planning    Real Estate

Technology Sales    Financial Services Marketing

Wholesale Rep    Broker

Electronic Rep    Small Business Owner

# Interior Design Technology (AAS)

- **Grade Requirements:** A grade of "B" or better in courses required for this major (a grade of "B-" is not acceptable) in addition to an overall GPA of 3.0 or higher.
- **Credit Hour Requirements:** A total of 66 credit hours is required.
- **Assessment Requirements:** Students may be required to complete certain assessment instruments as part of the requirements for receiving the associate's degree.

## Advisement

All Interior Design students are required to meet with a faculty advisor each semester for course and program advisement. Call 801- 626-6913 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no admission or application requirements for this program.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. The following required support courses will also be applied toward general education requirements: COMM 2110 (3), MATH 1030 (3) and ART 1010 (3) or ART 1030 (3). Students also need to complete Life Science or Physical Science (3), Social Science (3), and Computer and Information Literacy (minimum 2). A minimum of 20 hours in residence is required.

## Major Course Requirements for AAS Degree

### Interior Design Courses Required (33 credit hours)

- IDT 1010 CA - Introduction to Interior Design **Credits: (3)**
- IDT 1020 - Presentation Techniques **Credits: (3)**
- IDT 2010 - Sustainability I: Textiles and Soft Materials **Credits: (3)**
- IDT 2020 - Computer-aided Design and Drafting **Credits: (3)**
- IDT 2035 - Design Process/Space Planning **Credits: (3)**
- IDT 2040 - Architectural Detailing **Credits: (3)**
- IDT 2050 - Codes **Credits: (2)**
- IDT 2860 - Practicum **Credits: (1-2)**
- IDT 2990 - Interior Design Seminar **Credits: (1)**
- IDT 2820 - Historical Interiors **Credits: (3)**
- IDT 3020 - American and Modern Interiors **Credits: (3)**
- IDT 2060 - Sustainability II: Materials, Hard Surfaces, and Specifications **Credits: (3)**

### Support Courses Required (27 credit hours)

- ART 1010 CA - Introduction to the Visual Arts **Credits: (3)** or
- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- MATH 1030 QL - Contemporary Mathematics **Credits: (3)**

- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 3103 - Sales Personalities and Profiles **Credits: (3)**

Note:

*Computer and Information Literacy as defined in this catalog is also required.*

## Sales and Merchandising (AAS)

- **Program Prerequisite:** An interview with the program advisor is necessary prior to acceptance into the program.
- **Grade Requirements:** An overall GPA of 2.00 or "C."
- **Credit Hour Requirements:** A total of 63 credit hours is required.
- **Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see your advisor or your department for specific information regarding assessment.

### Advisement

All Sales and Merchandising students are required to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6913 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Associate of Applied Science requirements. COMM 2110 is a required support course and will also be applied toward general education requirements. Computer and Information Literacy as defined in this catalog is also required for the AAS degree.

## Major Course Requirements for AAS Degree

Courses Required (15 credit hours)

- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 1303 - Sales Channels **Credits: (3)**
- PS 2603 - Advanced Selling Techniques **Credits: (3)**
- PS 3203 - Customer Service Techniques **Credits: (3)**
- PS 3563 - Principles of Sales Supervision **Credits: (3)**

Support Courses (30 credit hours)

- Select 30 credit hours from any of the PS Department courses.

*Computer and Information Literacy as defined in this catalog is also required.*

# Interior Design - Professional Sales (BS)

The four-year Interior Design--Professional Sales degree provides student's academic preparation for employment in the design-build industry.

Students develop skills in professional practice and sales, Auto CAD, Revit Architecture, drafting, sketching, rendering, space planning, specification of materials, building codes, history and theory. Drafting and technical skills are essential to the program of study.

In addition to classroom projects, students participate in various community service projects, interdisciplinary design charrettes, attend field trips, and participate locally in professional organizations such as ASID, IIDA and NKBA.

Students graduating with the Interior Design Professional Sales degree meet guidelines for the practice of residential and commercial interior design, are academically prepared to sit for the CKD (Certified Kitchen Design) exam, gain membership in professional organizations, become licensed, and after two years of experience in the field sit for the NCIDQ (National Council for Interior Design Qualification) exam. The Interior Design--Professional Sales BS is **accredited by the Council for Interior Design Accreditation (CIDA)**.

Because the practice of interior design has become complex, technical, and demanding, this program provides students with the technical and sales skills, design and sales skills necessary to compete in the profession.

- **Program Prerequisite:** None.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "B" or better in courses required for this major (a grade of "B-" is not acceptable) in addition to an overall GPA of 3.0 or higher.
- **Credit Hour Requirements:** A total of 124 hours is required for this program for graduation.

*Transfer students and students coming into the program with an AAS, AA, or AS will take at least six semesters to complete the program.*

## Advisement

All Interior Design students are required to meet with a faculty advisor each semester for course and program advisement. Call 801- 626-6913 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no admission or application requirements for this program.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. MATH 1030 (3) is recommended to fulfill the Quantitative Literacy requirement. The following required support courses will also be applied toward general education requirements: ART 1010 (3) or ART 1030 (3) and COMM 2110 (3).

## Transfer Credits:

No courses older than 10 years will be accepted for transfer credit toward a degree in this program.

## Major Course Requirements for BS Degree

### Interior Design Courses Required (65-66 credit hours)

- IDT 1010 CA - Introduction to Interior Design **Credits: (3)**
- IDT 1020 - Presentation Techniques **Credits: (3)**
- IDT 1050 - Architectural Drafting **Credits: (3)**
- IDT 2010 - Sustainability I: Textiles and Soft Materials **Credits: (3)**
- IDT 2020 - Computer-aided Design and Drafting **Credits: (3)**
- IDT 2035 - Design Process/Space Planning **Credits: (3)**
- IDT 2040 - Architectural Detailing **Credits: (3)**
- IDT 2050 - Codes **Credits: (2)**
- IDT 2860 - Practicum **Credits: (1-2)**
- IDT 2990 - Interior Design Seminar **Credits: (1)**
- IDT 3000 - Lighting Design **Credits: (3)**
- IDT 2820 - Historical Interiors **Credits: (3)**
- IDT 3020 - American and Modern Interiors **Credits: (3)**
- IDT 3025 - Professional Practice **Credits: (3)**
- IDT 2060 - Sustainability II: Materials, Hard Surfaces, and Specifications **Credits: (3)**
- IDT 3040 - Perspective/Rendering **Credits: (2)**
- IDT 3045 - Residential Design **Credits: (3)**
- IDT 3060 - Kitchen & Bath **Credits: (3)**
- IDT 2080 - Advanced Interior Architectural Drafting and Design **Credits: (3)**
- IDT 4020 - Commercial Design **Credits: (3)**
- IDT 4025 - Senior Program Development **Credits: (2)**
- IDT 4030 - Senior Project **Credits: (3)**
- IDT 4040 - Portfolio Design **Credits: (2)**
- IDT 4830 - Directed Readings **Credits: (1-3)** 1 credit hour required
- IDT 4860 - Internship for Interior Design **Credits: (3)**

### Support Courses Required (26 credit hours)

- ART 1010 CA - Introduction to the Visual Arts **Credits: (3)** or
- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)**
- IDT 4010 - Commercial Studio **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 3103 - Sales Personalities and Profiles **Credits: (3)**
- PS 3203 - Customer Service Techniques **Credits: (3)**
- PS 3363 - Contract and Sales Negotiation Techniques **Credits: (3)**
- PS 3702 - Developing Team Leadership Skills **Credits: (2)**
- PS 3903 - Sales Presentation Strategies and Techniques **Credits: (3)**

Note:

*Students are required to attend and participate in activities outside of the classroom and at least one workshop per year, for which a fee may be attached.*

# Professional Sales (BS)

- **Program Prerequisite:** An interview with a faculty member is necessary prior to acceptance into the program.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.00 or higher.
- **Credit Hour Requirements:** A total of 120 hours is required for graduation; a minimum of 51 of these is required within the major. A total of 40 upper division credit hours is required (courses number 3000 and above); a minimum of 32 of these is required within the major.

## Advisement

All Professional Sales students are required to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6913 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree

Courses Required (51 credit hours)

- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 1303 - Sales Channels **Credits: (3)**
- PS 1401 - Introduction to Sales and Service Technology **Credits: (1)**
- PS 2603 - Advanced Selling Techniques **Credits: (3)**
- PS 3103 - Sales Personalities and Profiles **Credits: (3)**
- PS 3203 - Customer Service Techniques **Credits: (3)**
- PS 3250 - Business Communication **Credits: (3)**
- PS 3303 - Technology in Sales **Credits: (3)**
- PS 3363 - Contract and Sales Negotiation Techniques **Credits: (3)**
- PS 3503 - Sales Planning and Forecasting **Credits: (3)**
- PS 3563 - Principles of Sales Supervision **Credits: (3)**
- PS 3702 - Developing Team Leadership Skills **Credits: (2)**
- PS 3803 - Sales Proposals **Credits: (3)**
- PS 3903 - Sales Presentation Strategies and Techniques **Credits: (3)**
- PS 4203 - Ethical Sales and Service **Credits: (3)**
- PS 4610 - Senior Project I **Credits: (3)**
- PS 4620 - Senior Project II **Credits: (3)**
- PS 4993 - Sales Career Seminar **Credits: (3)**

Support Course Electives (minimum 24 credit hours)

*Select from the following or other classes approved by the department adviser.*

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- ATTC 3520 - Fleet Management **Credits: (3)**
- ATTC 3620 - Automotive Business Practices **Credits: (3)**
- BSAD 1010 - Introduction to Business **Credits: (3)**
- BSAD 3000 - Small Business Management **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)**
- CHF 2100 - Family Resource Management **Credits: (3)**
- CHF 2400 SS/DV - Family Relations **Credits: (3)**
- CHF 3150 - Consumer Rights and Responsibilities **Credits: (3)**
- CHF 4400 - The Family in Stress **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**
- GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)**
- IDT 1010 CA - Introduction to Interior Design **Credits: (3)**
- PSY 2000 SS - The Psychology of Human Relationships **Credits: (3)**
- PSY 3000 - Child Psychology **Credits: (3)**
- PSY 3100 - Psychology of Diversity **Credits: (3)**
- PSY 3460 - Social Psychology **Credits: (3)**
- PSY 4510 - Industrial and Organizational Behavior **Credits: (3)**
- SOC 3110 - Sociology of Family **Credits: (3)**
- PS 1503 - Introduction to Fashion Merchandising **Credits: (3)**
- PS 2182 - Credit and Collection Methods **Credits: (2)**
- PS 2443 - Advertising Methods **Credits: (3)**
- PS 2703 - Internet Sales and Service **Credits: (3)**
- PS 2903 - Professional Selling Methodologies **Credits: (3)**
- PS 4830 - Directed Readings **Credits: (1-3)**
- PS 4920 - Workshop Lecture **Credits: (1-2)**
- WEB 2080 - Database Applications **Credits: (1)**
- WEB 3070 - Advanced Spreadsheet Applications **Credits: (1)**
- WEB 3090 - Digital Presentations **Credits: (2)**
- WEB 2220 - Digital Publishing **Credits: (3)**
- WEB 3400 - LAMP Stack Web Development **Credits: (3)**
- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**

# Interior Design Technology Emphasis (BIS)

The Interior Design Program participates in the BIS degree program. For an Interior Design emphasis, students will take a minimum of 24 credit hours as approved by the Interior Design BIS advisor.

- Program Prerequisite: Enroll in the BIS Program with an interview with the BIS Program Coordinator. Call 801-626-7713 to talk with the BIS secretary and schedule an appointment.
- Grade Requirements: Receive a minimum grade of "B" in each IDT course and also receive a minimum grade of "C" in each additional course taken for the three emphases in addition to a minimum cumulative GPA of 2.5. Classes listed on the BIS contract must be taken for a letter grade; special exams, CLEP or credit/no credit are not allowed for contract classes.

## Courses Required for the Interior Design BIS Emphasis

Required Courses (21 credit hours)

*Note: The following are required courses for the BIS degree. No substitutions are allowed.*

- IDT 1010 CA - Introduction to Interior Design **Credits: (3)**
- IDT 2020 - Computer-aided Design and Drafting **Credits: (3)**
- IDT 2035 - Design Process/Space Planning **Credits: (3)**
- IDT 2050 - Codes **Credits: (2)**
- IDT 3025 - Professional Practice **Credits: (3)**
- IDT 2060 - Sustainability II: Materials, Hard Surfaces, and Specifications **Credits: (3)**
- IDT 4040 - Portfolio Design **Credits: (2)**

Elective Courses

*Students should choose 3 hours from the following courses to compliment the required courses listed above.*

- IDT 1020 - Presentation Techniques **Credits: (3)**
- IDT 2010 - Sustainability I: Textiles and Soft Materials **Credits: (3)**
- IDT 2040 - Architectural Detailing **Credits: (3)**
- IDT 2860 - Practicum **Credits: (1-2)**
- IDT 2990 - Interior Design Seminar **Credits: (1)**
- IDT 3000 - Lighting Design **Credits: (3)**
- IDT 2820 - Historical Interiors **Credits: (3)**
- IDT 3060 - Kitchen & Bath **Credits: (3)**

## Fashion Merchandising Minor

### Professional Sales (Minor)

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor.
- **Credit Hour Requirements:** A total of 15 credit hours required.

*This program offers students who major in another field the option to obtain a minor in one of the areas in Professional Sales. Course options are available for substitution or addition to the recommended courses should the student feel a need for a more specific or concentrated minor emphasis. Check with the PS Department for approval of substitute courses.*

## Course Requirements for Fashion Merchandising Minor

Courses Required (21 credit hours)

- IDT 2010 - Sustainability I: Textiles and Soft Materials **Credits: (3)**
- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 1503 - Introduction to Fashion Merchandising **Credits: (3)**
- PS 2383 - Retail Merchandising and Buying Methods **Credits: (3)**
- PS 2443 - Advertising Methods **Credits: (3)**
- PS 2703 - Internet Sales and Service **Credits: (3)**
- THEA 3243 - Costume History **Credits: (3)**

## Interior Design Minor

### Professional Sales (Minor)

- **Grade Requirements:** A grade of "B" or better in all courses used toward the minor.
- **Credit Hour Requirements:** A total of 21 credit hours required.

*This program offers students who major in another field the option to obtain a minor in one of the areas in Professional Sales.*

## Course Requirements for Interior Design Minor

Courses Required (minimum of 21 credit hours)

- IDT 1010 CA - Introduction to Interior Design **Credits: (3)**
- IDT 2020 - Computer-aided Design and Drafting **Credits: (3)**
- IDT 2035 - Design Process/Space Planning **Credits: (3)**
- IDT 2040 - Architectural Detailing **Credits: (3)**
- IDT 3025 - Professional Practice **Credits: (3)**
- IDT 2060 - Sustainability II: Materials, Hard Surfaces, and Specifications **Credits: (3)**
- IDT 4020 - Commercial Design **Credits: (3)**

## Sales Minor

### Professional Sales (Minor)

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor.
- **Credit Hour Requirements:** A total of 15 credit hours required.

*This program offers students who major in another field the option to obtain a minor in one of the areas in Professional Sales. Course options are available for substitution or addition to the recommended courses should the student feel a need for a more specific or concentrated minor emphasis. Check with the PS Department for approval of substitute courses.*

## **Course Requirements for Professional Sales Minor (minimum of 15 credit hours)**

- PS 1143 - Fundamental Selling Techniques **Credits: (3)**
- PS 1303 - Sales Channels **Credits: (3)**
- PS 2603 - Advanced Selling Techniques **Credits: (3)**
- PS 3203 - Customer Service Techniques **Credits: (3)**
- PS 3563 - Principles of Sales Supervision **Credits: (3)**

## **Interior Design Technology Departmental Honors**

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## **Professional Sales Departmental Honors**

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Telitha E. Lindquist College of Arts & Humanities

## **Scott Sprenger, Dean**

The Telitha E. Lindquist College of Arts & Humanities offers comprehensive programs encompassing the visual and performing arts, languages, literature, and communications. The programs of the College are designed to help students gain a thorough understanding of their cultural and aesthetic heritage and to prepare them for employment opportunities that will take advantage of the special skills developed through rigorous study of the arts and humanities. The educational and cultural programs of the departments are available to both major and non-major students.

The curriculum of the Telitha E. Lindquist College of Arts & Humanities is enriched by special lectures, exhibitions, dramatic and musical productions. Many nationally known artists perform each year before audiences drawn from the campus and the community.

**Associate Dean:** Becky Jo Gesteland

**Location:** Val A. Browning Center, Room 312

**Telephone Contact:** Kate Johnson 801-626-6424

**Senior College Advisor:** Debra Murphy 801-626-6631

**Location:** Elizabeth Hall, Room 413A

**College Advisor:** Janneca McClellan 801-626-6664

**Location:** Elizabeth Hall, Room 413B

## **Department Chairs/Directors**

Communication: Dr. Sheree Josephson	801-626-6164
Communication Master's Program: Dr. Sarah Steimel	801-626-6535
English Language & Literature: Dr. Hal Crimmel	801-626-8044
English Master's Program: Dr. Mahalingam Subbiah	801-626-6335
Foreign Languages: Dr. Craig Bergeson	801-626-7111
Performing Arts: Dr. Thomas Priest	801-626-7181
Visual Art and Design: Mr. Matthew Choberka	801-626-7270

## **Weber: The Contemporary West**

**Editor:** Dr. Michael Wutz

**Managing Editor:** Alexandria Thompson

**Telephone:** 801-626-6473

Instituted in 1984 as *Weber Studies*, this interdisciplinary humanities journal is published under the auspices of the Telitha E. Lindquist College of Arts & Humanities. Indexed in leading indexes in the humanities and social sciences, the journal is peer-reviewed and has an international editorial board. For more information see [weberjournal.weber.edu](http://weberjournal.weber.edu).

# Master of Professional Communication Program

**Program Director:** Dr. Sarah Steimel, 801-626-6535

**Telephone Contact:** Shari Love, 801-626-7499

**E-mail Contact:** [mpc@weber.edu](mailto:mpc@weber.edu)

**Location:** Elizabeth Hall, north end of third floor

**Department Chair:** Dr. Sheree Josephson

The Master of Professional Communication (MPC) degree emphasizes advanced communication knowledge and skills necessary to produce effective leaders, managers, and organizational members in for-profit, government or non-profit organizations. Students develop a plan of study tailored to their personal career goals through a combination of required and elective courses within the field of communication and in related fields such as business, education, and health professions. Courses in the two-year program blend classroom instruction with online educational tools to accommodate the educational needs of working professionals.

## Master of Professional Communication (MPC)

### Admission Requirements

Applicants for admission into the WSU Master of Professional Communication program must possess a bachelor's degree from an accredited institution (or be in the final stage of completing the degree) and have a minimum GPA of 3.0.

Applicants will submit:

- Completed application with personal essay
- Current resume
- Official transcripts from every institution of higher education attended (transcript must show that the bachelor's degree has been completed).
- Three letters of academic and/or professional recommendation

### Additional Admission Requirements for International Students

All international students and any applicants educated outside the United States must demonstrate proficiency in English. Those whose native language is not English must submit an official score from the Test of English as a Foreign Language (TOEFL) of 550 (paper-based) or 213 (computer-based). The score may not be more than two years old. Equivalent IELTS score is also accepted in place of TOEFL.

### Acceptance into Program

Each applicant is accepted on an individual basis. Ideal applicants will present a strong overall academic record, positive letters of recommendation, and a record of professional accomplishment. An ideal class will consist of working professionals with a wide variety of backgrounds in for-profit, government or non-profit organizations. Ethnic diversity is a plus. The MPC program will have limited enrollment.

### Elective Courses from Other Universities

Related graduate-level courses from other universities may be accepted with permission of the MPC program director.

### Transfer Credit

Transfer credit must be approved by the program director and cannot exceed 12 hours. Transfer classes must be at an appropriate level and fulfill the objectives of the MPC. No courses for which credit was used to fulfill requirements of another degree may be used toward the MPC degree.

## Grade Requirements

To earn the MPC degree, candidates must complete all graduate courses with a grade of B- or higher. The overall program GPA must be 3.0 or higher. Failure to maintain a 3.0 grade point average, or two consecutive course sessions where a grade lower than B- has been earned, will result in academic probation in accordance with departmental policies.

## Graduation Requirements

1. 33 credit hours, at least 30 at the 6000-level.
2. Overall GPA of at least 3.0.

## Time for Degree Completion

MPC students have a maximum of six calendar years to complete their degree requirements, starting from the first semester during which the student has registered and begun taking classes. Students who exceed this requirement may submit a letter of appeal to the MPC director to request that this requirement be waived. Students who fail to enroll in MPC courses for three consecutive semesters must apply for readmission to the program unless a deferment is approved by the program director. In order to ensure timely progress through the program, students must consult with an MPC advisor every Fall Semester. Students on the thesis/project track who, for any reason, do not finish their thesis or project or program of courses within the two-year framework suggested in this program, must pay continuing enrollment and tuition the semester they defend their thesis or project.

## Course Requirements for MPC

### Foundational Courses (12 credit hours)

- MPC 6010 - Introduction to Graduate Study and Communication Theory **Credits: (3)**
- MPC 6150 - Writing for Professional Communicators **Credits: (3)**
- MPC 6210 - Presentational Speaking in the Workplace **Credits: (3)**
- MPC 6700 - Research Methods for Professional Communication **Credits: (3)**

### Core Courses (12 credit hours)

Choose four of the six courses in consultation with the MPC program director.

- MPC 6100 - Team Building and Facilitation **Credits: (3)**
- MPC 6300 - New Media in Professional Communication **Credits: (3)**
- MPC 6350 - Visual Communication in the Workplace **Credits: (3)**
- MPC 6400 - Leadership Communication **Credits: (3)**
- MPC 6450 - Advanced Organizational Communication **Credits: (3)**
- MPC 6600 - Strategic Communication **Credits: (3)**

### Electives (9 credit hours)

Students may choose the thesis track, project track OR the coursework track

### Thesis

- MPC 6900 - Thesis/Project I **Credits: (3)**
- MPC 6950 - Thesis/Project II **Credits: (3)**
- 3 credit hours of master's level electives, chosen in consultation with the MPC program director.

## Project Track

- MPC 6900 - Thesis/Project I **Credits: (3)**
- 6 credit hours of master's level electives, chosen in consultation with the MPC program director.

## Coursework Track

Choose nine credit hours of electives in consultation with the MPC program director.

- At least 6 credit hours must come from elective courses at the 6000 level.
- No more than 3 credit hours of dual designated MPC courses at the 5000 level.

## Elective Master's-level Courses

### 6000-level Electives

- MPC 6250 - Interviewing **Credits: (3)**
  - MPC 6500 - Topics in Professional Communication **Credits: (3)**
  - MPC 6620 - Conflict Resolution and Mediation **Credits: (3)**
- Note: Students may also choose 6000-level courses from the list of core required courses above to count as electives.**

### Elective Interdisciplinary Courses

*Students may select no more than two courses (six credit hours) from the following WSU master's program courses (with the permission of the appropriate MPC graduate program advisor and/or fulfillment of prerequisite courses). Interdisciplinary electives must be approved by the MPC program director.*

- MBA 6140 - Marketing Management **Credits: (3)**
- MBA 6170 - Corporate Communications **Credits: (3)**
- MBA 6530 - E-Business **Credits: (3)**
- MBA 6540 - Negotiations **Credits: (3)**
- MHA 6000 - Health Systems & the Healthcare Economy **Credits: (3)**
- MHA 6400 - Strategic Health Planning and Marketing **Credits: (3)**
- MED 6110 - Introduction to Classroom Management **Credits: (3)**
- MED 6120 - Advanced Classroom Management **Credits: (3)**

### Dual-Designation or "Swing" Courses

*The following dual designation courses are designed to fill gaps in the undergraduate preparation of students who wish to command the broadest understanding of professional communication. While the courses are accessible to students who have not taken the corresponding undergraduate courses, the graduate courses differ from undergraduate counterparts in demanding greater depth and breadth in all major aspects of each course such as reading, writing, presentation, projects, etc. Of the 9 elective credit hours in the Master of Professional Communication degree, only 3 may be 5000-level courses and must be approved by the MPC program director before registration.*

- MPC 5080G - Intercultural Communication **Credits: (3)**
- MPC 5090G - Gender and Communication **Credits: (3)**
- MPC 5220G - Editing **Credits: (3)**
- MPC 5440G - Public Relations Media and Campaigns **Credits: (3)**
- MPC 5500G - Topics in Communication **Credits: (3)**
- MPC 5650G - Communication Law **Credits: (3)**

- MPC 5820G - Persuasive Communication **Credits: (3)**
- MPC 5850G - Advertising **Credits: (3)**

## Master of Arts in English Program

**English Department Chair:** Hal Crimmel

**Program Director:** Mahalingam Subbiah 801-626-6335

**Location:** Elizabeth Hall, Room 443

**Telephone Contact:** Rami Collins 801-626-7179

The Master of Arts in English program offers traditional graduate students and working adults advanced preparation in the study of English language and literature.

The curriculum is composed of 2 and 3 credit hour classes that fall into the following broad categories:

- American Literature
- British Literature
- Teacher Education
- World Literature
- Linguistics

## Master of Arts in English (MA)

### Admission Requirements

Admission to the MENG program requires a bachelor's degree in English. Students with less English preparation may petition for conditional admission which may require that they take additional classes at the 5000-level for full matriculation.

Applicants must complete an online application. Criteria for acceptance into the program include:

- Undergraduate degree in English with a minimum GPA of 3.25 in the major (preferred)
- Submission of writing sample (4-8 pages)
- Transcripts from all institutions of higher education attended
- Three letters of recommendation from educational or professional references
- Interview with the program director or option coordinator

### Additional Requirements for International Students

All international students and any applicants educated outside the United States must demonstrate proficiency in English. Those whose native language is not English must submit an official score from the Test of English as a Foreign Language (TOEFL) of 550 (paper-based) or 213 (computer-based). Other appropriate tests may be used as an alternative to the TOEFL, such as IELTS and the WSU LEAP Special Examination. The score may not be more than two years old.

### Transfer Credits

- Transfer credit must be approved by the program director and cannot exceed 11 credit hours. Transfer classes must be at appropriate levels and fulfill the objectives of the Master of Arts in English degree at WSU. No courses for which credit was used to fulfill requirements of another degree may be used toward the Master of Arts in English degree.

## Obsolete Credits

- Credit earned more than ten (10) years earlier than the proposed date of graduation will not be accepted for the MA degree unless approved by the program director.

## Graduation Requirements

- Credit hour requirements are determined within the option. A minimum of 24 credit hours at the 6000-level and a minimum of 33 total credit hours are required in the program. Students must complete all requirements in one of the options.
- Grades of B- or better in all courses counting toward the degree.
- Students with a BS degree must show foreign language competency either by completing six hours of a foreign language class with a grade of C (or better) or by passing a prescribed foreign language reading test.
- Students not completing a thesis will be required to submit a portfolio of their work to the program for assessment purposes.

## Time for Degree Completion

- MENG students must receive approval from the program director to register for more than nine (9) credit hours in a semester.
- MENG students have a maximum of six calendar years to complete their degree requirements, starting from the first semester during which the student has registered for and begun taking classes. Students who exceed this time limit may submit a letter of appeal to the program director to request an extension.
- Students who fail to enroll in program classes for three consecutive semesters (not including summers) must apply for readmission to the program.
- In order to ensure timely progress through the program, students are encouraged to consult with an advisor at least once a year.

## Course Requirements for Master of Arts in English

*All MENG students will be required to complete the Core Requirements as part of their degree. In addition to the Core, a student needs to complete one of the options.*

### CORE REQUIREMENTS

## Core Research Methods

- MENG 6010 - Introduction to Graduate Studies **Credits: (3)**  
**Required in first or second semester.**

## Core Literature

One course from the following:

- MENG 6030 - Studies in Literary Theory and Criticism **Credits: (3) \***
- MENG 6610 - Advanced Studies in Genre **Credits: (2-3) \***
- MENG 6710 - Variable Topics **Credits: (2-3) \***

## Core Seminars

One course from the following:

- MENG 6510 - Seminar in Eminent Writers: **Credits: (2-3)** \*
- MENG 6520 - Seminar in Shakespeare **Credits: (3)**

### Note:

\*May be repeated for elective credit with different content.

## Electives

- Elective courses may be taken to fulfill the minimum 33 credit hours required to graduate. All program courses not taken as a required course may be taken as electives.
- No more than three hours of directed readings credit (MENG 6830) may apply toward the Master of Arts in English degree unless approved by the program director.
- The following two courses may be taken only by students who are teaching writing for WSU for the first time: MENG 6821 and MENG 6823.

## LITERATURE OPTION

*All MENG students will be required to complete the Core Requirements as part of their degree.*

### Seminars in Literature

*Three courses from at least two of the following repeatable seminars (9 credit hours):*

- MENG 6240 - Seminar in American Literature **Credits: (3)**
- MENG 6250 - Seminar in British Literature **Credits: (3)**
- MENG 6260 - Seminar in World Literature **Credits: (3)**

## Electives

Elective courses may be taken to fulfill the minimum 33 credit hours required to graduate.

## CREATIVE WRITING OPTION

All MENG students will be required to complete the Core Requirements as part of their degree.

### Creative Writing Option Requirement:

### Seminars in Literature

*Three courses from at least two of the following repeatable seminars (9 credit hours):*

- MENG 6240 - Seminar in American Literature **Credits: (3)**
- MENG 6250 - Seminar in British Literature **Credits: (3)**
- MENG 6260 - Seminar in World Literature **Credits: (3)**

## Forms and Crafts

- MENG 6730 - Creative Writing Forms and Crafts **Credits: (3)**

## Creative Writing Workshops

Must complete at least two workshops (6 Credits)

- MENG 6740 - Creative Nonfiction Writing **Credits: (3)** \*
  - MENG 6750 - Fiction Writing **Credits: (3)** \*
  - MENG 6760 - Poetry Writing **Credits: (3)** \*
- \* Repeated with different titles.*

## Thesis

- MENG 6950 - Creative Writing Thesis: Fiction, Nonfiction, Poetry **Credits: (1-6)**  
*Must take a minimum of 3 credits*

## SECONDARY LICENSURE OPTION

*All MENG students will be required to complete the Core Requirements as part of their degree.*

## Literature

*One of the following courses (may be used to also fulfill the Core Literature).*

- MENG 6030 - Studies in Literary Theory and Criticism **Credits: (3)**
- MENG 6610 - Advanced Studies in Genre **Credits: (2-3)**
- MENG 6710 - Variable Topics **Credits: (2-3)**

## Seminars

*One of the following courses (may be used to also fulfill the Core Seminars).*

- MENG 6510 - Seminar in Eminent Writers: **Credits: (2-3)**
- MENG 6520 - Seminar in Shakespeare **Credits: (3)** \*  
*\*Strongly recommended*

## Linguistics

*One of the following courses.*

- MENG 6310 - Language and Linguistics for Teachers **Credits: (3)**
- MENG 6410 - Strategies and Methodology of Teaching ESL/Bilingual **Credits: (3)**

## Writing

*One of the following courses (3 credit hour minimum).*

- MENG 6110 - Writing for Teachers **Credits: (3)**
- MENG 6230 - Wasatch Range Writing Project Summer Institute **Credits: (1-6)**

## Seminars in Literature

One course in two of the three following seminars (6 credit hours).

- MENG 6240 - Seminar in American Literature **Credits: (3)**
- MENG 6250 - Seminar in British Literature **Credits: (3)**
- MENG 6260 - Seminar in World Literature **Credits: (3)**

## Electives

Elective courses may be taken to fulfill the minimum 33 credit hours required to graduate if the secondary licensure is not pursued.

## Secondary Licensure Teaching

*MED 6050 must be taken prior to MENG 6120/MENG 6861; MENG 6120 and MENG 6861 must be taken concurrently. It is strongly recommended that MENG 6110 or MENG 6230 be taken prior to MENG 6120/MENG 6861.*

- MENG 6120 - Teaching Traditional and Contemporary Young Adult Literature **Credits: (4)**
- MENG 6861 - Practicum in Secondary English Education **Credits: (2)**

## Note:

Students seeking to fulfill the secondary licensure requirements through the Utah State Office of Education must also apply and be accepted into the Master of Education (MEd) Secondary Licensure Track. For all requirements related to pursuing a secondary licensure, please refer to the Master of Education Secondary Licensure Track in this catalog and contact the MED Program offices. A minimum of 16 credit hours will be required from MEd for licensure with additional credit in student teaching also required. Credit taken in the MEd Program will meet elective requirements for the 33 credit hour minimum in MENG.

## TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES OPTION (TESOL)

*All MENG students will be required to complete the Core Requirements as part of their degree.*

## TESOL Foundations

*All of the following:*

- MED 6250 - Second Language Acquisition: Theories and Implementation **Credits: (3)**
- MED 6270 - Literacy Strategies for Teaching English Language Learners **Credits: (3)**
- MENG 6005 - Intercultural Classroom Discourse **Credits: (3)**
- MENG 6280 - TESOL Practicum **Credits: (1)**
- MENG 6410 - Strategies and Methodology of Teaching ESL/Bilingual **Credits: (3)**
- MENG 6420 - English Phonology and Syntax for ESL/Bilingual Teachers **Credits: (3)**
- MENG 6450 - ESL/Bilingual Assessment: Theory, Methods, and Practices **Credits: (3)**

## Electives

Elective courses may be taken to fulfill the minimum 33 credit hours required to graduate.

# Department of Communication

**Department Chair:** Dr. Sheree Josephson

**Location:** Elizabeth Hall, Room 330

**Telephone:** 801-626-8924

**Professors:** Susan Hafen, Rebecca Johns, Sheree Josephson, Colleen Packer; **Associate Professors:** Anne Bialowas, Sarah Steimel; **Assistant Professors:** Michael Ault, Andrea Baltazar, Nicola Corbin, Hailey Gillen Hoke, Alexander Lancaster, Andrés Orozco, Jean Norman; **Instructors:** Ryan Cheek, Stephanie Gomez, Omar Guevara, Robin Haislett, Leslie Howerton, Mark Merkley, Andrew Tyler, Brent Warnock

Communication is a dynamic process that plays a complex and profound role in shaping both individuals and society and is vital to the free exchange of ideas central to a democratic society. The Weber State University Department of Communication seeks to promote an understanding of this process and the effective and ethical practice of human communication by focusing on how people create and use messages to generate meanings within and across various contexts, cultures, channels and media, including those delivered through technology. WSU Communication Department curricula and programs are grounded within a liberal arts tradition and designed to help students live vital and successful lives in an ever-changing global environment.

The curriculum for the major is designed to provide a liberal arts-based study of human communication combined with a course of study that prepares graduates for entry-level employment in Communication and Communication-related careers. The major also prepares students for graduate study in Communication and related disciplines. The Department is committed to enhancing student learning through required internships and through co-curricular opportunities afforded by our award-winning student-operated organizations, including The Signpost, KWCR Wildcat Radio, Ogden Peak Communications, Studio 76/Wildcat ONE TV, My Weber Media (converged media website), and our nationally prominent intercollegiate debate program.

Communication majors may select one of six emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. They may also select a Communication Teaching major with emphases in Communication Studies or Multimedia Journalism. Students may earn the Communication major as either a Bachelor of Arts or a Bachelor of Science degree.

The Communication minor and the Bachelor of Integrated Studies concentration in Communication (BIS) are designed to provide the student with knowledge and skills in Communication that complement the student's major or other concentrations of study.

In addition to emphasizing knowledge, understanding, and demonstrated competence in the skills of human communication, curricular and co-curricular programs emphasize the development of character in our students. Accordingly, department faculty discourage symbolic expression that demeans and degrades other human beings and encourage symbolic expression that celebrates the fundamental dignity of all human beings.

## Obsolete Credit

Credit earned more than 10 years earlier than the proposed date of graduation will not be accepted for the major, minor or BIS concentration in Communication unless validated through a challenge examination or department chair approval.

## Co-curricular and Extra-curricular Activities

## Scholarships, Fellowships, and Tuition Waivers

Scholarships and/or tuition waivers are available to WSU Debate competitors and to The Signpost, KWCR Wildcat Radio, Ogden Peak Communications, and Studio 76/Wildcat ONE TV staff members. Other academic scholarships are also available. Contact the department office at 801-626-8924 or visit the department website at [weber.edu/communication](http://weber.edu/communication) for more information.

## **Professional and/or Honorary Organizations**

Communication students are encouraged to join one or more of the professional and/or honorary organizations affiliated with the department. Memberships in these organizations provide students with opportunities to meet and network with Communication professionals, learn about employment opportunities in the field of Communication, and participate in practical experiences relevant to future employment. See the faculty advisor of each organization for more information:

Society of Professional Journalists (SPJ)	Dr. Jean Norman
Public Relations Student Society of America (PRSSA)	Leslie Howerton
Lambda Pi Eta Honor Society	Dr. Hailey Gillen Hoke, Dr. Sheree Josephson
Departmental Honors	Dr. Susan Hafen

## **Debate**

Participation in intercollegiate debate activities is conducted in conjunction with the instructional program in argument, public speaking, and civic advocacy. Students participate in regional and national debate tournaments under supervision of the program's directors. The Department of Communication hosts the annual Bob Mukai College Classic, the annual Val Browning Round Robin, the state high school debate and speech championship, and a three-week summer high school camp. In addition, Weber State has hosted the 67th annual National Debate Tournament (2013), and the 9th annual National Debate Coaches Association national championship (2014).

## **Weber State Student Media**

### *The Signpost*

Multimedia Journalism students have the opportunity to polish reporting, writing, and multimedia skills at The Signpost, Weber State University's student-run news organization. Content is disseminated online and via newspaper.

### *KWCR Wildcat Radio*

Students practice and develop their knowledge and resumes by joining Weber State's student-run, digital-streaming radio station KWCR Wildcat Radio. Student staffers gain experience in audio production, podcast creation, live broadcasting, public relations, live event planning, social campaigns, seeking music promoters and sponsorship opportunities. KWCR streams music, local sports, news, and specialty programs on the MyWeberMedia app and the RadioFX app. Weekly Spanish-language programming serves as an important connection to the Hispanic community in the Ogden area and Northern Utah.

### *Studio 76*

Studio 76 produces high-quality video content for campus and community organizations as well as creates multiple studio shows ranging from a weekly newscast produced for The Signpost to in-studio entertainment shows. Studio 76 also offers live-streaming services to many campus clubs and organizations. Content is shown online via MyWeberMedia.com or Studio 76's YouTube channel. Content is also shown on WSU's campus television station Wildcat ONE.

### *Ogden Peak Communications*

Students run a public relations and advertising group to apply the skills they have learned in the classroom. Ogden Peak Communications works with clients to develop content and campaigns. Students take on the same roles and responsibilities as PR professionals.

### *My Weber Media*

Members of each Communication co-curricular area collaborate through the My Weber Media Group and distribute media content on the converged media site MyWeberMedia.com. Students develop multimedia skills and learn about

cross-promotion. The My Weber Media site contains news and views from The Signpost, video content from Studio 76, music and interviews from KWCR Wildcat Radio, as well as promotional material from Ogden Peak Communications. Additional content features student films and live streaming of important events.

### **Interdisciplinary Minors**

The Communication Department participates in the interdisciplinary Linguistics Minor Program. Students who wish to enroll in this program should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

## **Communication (AS)**

An Associate of Science degree may be obtained while pursuing coursework in Communication. The AS requires a minimum of 61 semester credit hours (24 in COMM) with a cumulative grade-point average of 2.0 or better.

Communication core (12 credit hours) course requirements include COMM 1020 Principles of Public Speaking, COMM 1130 Media Writing, COMM 1500 Introduction to Mass Communication, COMM 2110 Interpersonal & Small Group Communication. Communication electives (12 credit hours) include any combination of: COMM 1270 Analysis of Argument, COMM 1560 Audio Production & Performance, COMM 2010 Mass Media & Society, COMM 2200 In-studio Video Production and Performance, COMM 2210\* Intercollegiate Debate, COMM 2250 Essentials of Digital Media, COMM 2270 Argumentation & Debate, COMM 2730\* Radio Production Workshop.

\*COMM 2210 & 2730 are 1-credit hour participation courses that may be repeated twice up to 3 credit hours each for an AS degree.

### **Advisement**

Students are encouraged to meet with the academic advisor for the College of Arts and Humanities at least annually for course and program advisement. Call 801-626-6631 or email Debbie Murphy at [ddmurphy@weber.edu](mailto:ddmurphy@weber.edu) for more information or to schedule an appointment.

### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information).

### **General Education**

Refer to Degree Requirements of this catalog for Associate of Science requirements.

## **Communication Core Requirements (12 credits)**

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)** OR
- COMM 1140 - Writing for Workplace Communication **Credits: (3)**
- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

## **Communication Electives (12 credits)**

- COMM 1270 - Analysis of Argument **Credits: (3)**

- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2210 - Intercollegiate Debate **Credits: (1)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 2730 - Digital Radio Production and Broadcast **Credits: (1-3)**
- COMM 2890 - Cooperative Work Experience for The Signpost **Credits: (1-3)**
- COMM 2999 - Capstone in Workplace Communication and Writing **Credits: (3)**

***COMM 2210 & 2730 are 1-credit hour participation courses that may be repeated twice up to 3 credit hours each for an AS degree.***

## **Civic Advocacy Emphasis, Communication (BA)**

### **Communication Major**

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

### **Advisement**

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

### **Admission Requirements**

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

### **General Education**

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

Select one of the following emphasis areas in Communication:

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BA (12 credit hours)

Complete either Option 1 or Option 2.

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

### Option 2 - Foreign Language with Language Arts

Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**

- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## **Civic Advocacy Emphasis (45 credit hours)**

The mission of the Civic Advocacy emphasis is to educate students who wish to serve as advocates in the interest of the public good. Those who might benefit from this interdisciplinary emphasis include students who want to become attorneys, legislators, environmental advocates, animal rights activists, religious leaders, homeless advocates, politicians, children's advocates, advocates for minority and marginalized populations, etc.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- Environmental Advocacy
- Ethnic Studies/Ethnic Advocacy
- Legal Advocacy
- Public Policy Advocacy
- Religion Advocacy
- Women's Advocacy

### **Required Courses (27 credit hours)**

- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2270 - Argumentation and Debate **Credits: (3)** or  
• COMM 1270 - Analysis of Argument **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)** or  
• COMM 3090 - Gender and Communication **Credits: (3)**

Three of the following courses (9 credit hours):

- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**

- COMM 3891 - Advanced Cooperative Work Experience with KWCR **Credits: (1-3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**
- COMM 3893 - Advanced Cooperative Work Experience with Studio 76 **Credits: (1-3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as "Political Communication"*

### Elective Courses (18 credit hours)

*See department advisor for an approved list of additional non-Communication Department courses for the tracks (18 credit hours).*

## Communication (BA)

### Areas of Emphasis

Select one of the following areas of emphasis

- Civic Advocacy Emphasis, Communication (BA)
- Communication Studies Emphasis, Communication Teaching (BA)
- Digital Media Emphasis, Communication (BA)
- Interpersonal & Family Communication Emphasis, Communication (BA)
- Multimedia Journalism Emphasis, Communication (BA)
- Multimedia Journalism Emphasis, Communication Teaching (BA)
- Organizational Communication Emphasis, Communication (BA)
- Public Relations & Advertising Emphasis, Communication (BA)

## Communication Studies Emphasis, Communication Teaching (BA)

### Communication Teaching Major (BS or BA)

- **Program Prerequisite:** Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A minimum of 47-48 of these are required within the major, depending on the selected emphasis. A total of 40 upper-division credit hours is required (courses numbered 3000 and above); a minimum of 24-36 of these are required within the major, depending on the selected emphasis.

### Advisement

Communication students are required to meet with a faculty advisor at least annually for course and program advisement. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to Degree Requirements of this catalog for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. The following courses required for this major will also fulfill general education requirements: COMM 1020 or COMM 2010 and COMM 2110.

## Emphasis Requirements

The State of Utah endorses secondary teachers in two areas of Communication: Speech and Journalism. Accordingly, the Communication Teaching major is divided into two emphasis areas: Communication Studies (Speech) and Multimedia Journalism (Journalism). All Communication Teaching majors must complete one of these two emphasis areas.

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must also complete required and/or elective courses from non-Communication departments.

Communication Courses Required of all Communication Teaching Majors (21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)** \*
  
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

Note:

*\*Students must take either COMM 1020 or COMM 2110 as a foundation course requirement for the Communication Teaching major, whichever is **not** used for Teacher Education Admission requirements.*

## Courses Required to Fulfill the BA (12 credit hours)

*Complete either Option 1 or Option 2.*

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

### Option 2 - Foreign Language with Language Arts

*Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.*

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## **Communication Studies Emphasis (27 credit hours)**

### Required Courses (18 credit hours)

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4850 - Teaching Speech and Directing Speech Activities in the Secondary School **Credits: (3)**

### Electives (9 credit hours)

*Select 9 credit hours of electives from the following with approval from the department's communication education advisor for the Communication Studies emphasis.*

- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**

## **Digital Media Emphasis, Communication (BA)**

### **Communication Major**

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.

- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

## **Advisement**

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## **Admission Requirements**

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## **General Education**

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## **Emphasis Areas**

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## **Major Course Requirements for BS or BA Degree**

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BA (12 credit hours)

Complete either Option 1 or Option 2.

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

### Option 2 - Foreign Language with Language Arts

Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## Digital Media Emphasis (45 credit hours)

An emphasis in Digital Media will teach students about the importance of deadlines, budgets and the impact their actions have on a production team. Advanced students will gain understanding about the art and power of communicating messages through video, audio, and the Web.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- **Entertainment:** acquire skills in production, writing, and content development to prepare to pursue further graduate study and careers within the entertainment industry.
- **Digital Media Production:** acquire skills producing, writing, shooting, editing, directing, and distributing video content. Focused on creating and sharing institutional, educational, and commercial video productions.

### Required Courses (30 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 4750 - Advanced Cinematography and Editing **Credits: (3)**
- COMM 4760 - Media Management and Distribution **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 2730 - Digital Radio Production and Broadcast **Credits: (1-3)** (3 semesters at 1 credit hour each)
- COMM 2751 - Narrative Digital Filmmaking **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3200 - Live Event Production **Credits: (1-3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**
- COMM 3891 - Advanced Cooperative Work Experience with KWCR **Credits: (1-3)**
- COMM 3893 - Advanced Cooperative Work Experience with Studio 76 **Credits: (1-3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4440 - Developing and Evaluating Health Communication Campaigns **Credits: (3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as electronic media-related topic and with permission of instructor*
- COMM 4800 - Special Study and Individual Projects **Credits: (1-3)**

Elective Courses (15 credit hours)

Note:

*See department advisor for an approved list of non-Communication Department courses for the tracks (15 credit hours).*

## **Interpersonal & Family Communication Emphasis, Communication (BA)**

### **Communication Major**

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family

Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.

- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

## **Advisement**

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## **Admission Requirements**

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## **General Education**

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## **Emphasis Areas**

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## **Major Course Requirements for BS or BA Degree**

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)** OR
- COMM 1140 - Writing for Workplace Communication **Credits: (3)**

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## **Courses Required to Fulfill the BA (12 credit hours)**

*Complete either Option 1 or Option 2.*

### **Option 1 - Foreign Language**

- Select 4 courses (12 credit hours) in a foreign language.

### **Option 2 - Foreign Language with Language Arts**

*Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.*

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## **Interpersonal & Family Communication Emphasis (45 credit hours)**

The Interpersonal & Family Communication emphasis is designed to help students understand, explain, and improve friendship, marriage, family, and other meaningful long- and short-term interpersonal relationships. Communication is the central enabling feature or framework through which we all function, create, and share meaning, sustain identities, and negotiate our relationships with each other and the rest of the world. This program of study will teach students to understand the complex, dynamic relationships.

### **Required Courses (24 credit hours)**

- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3085 - Family Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**

- COMM 3550 - Organizational Communication **Credits: (3)**

**Required Outside the Department (6 credits)**

- CHF 1400 - Marriage and Romantic Relationships **Credits: (3)** or
- CHF 2400 SS/DV - Family Relations **Credits: (3)**
- WGS 1500 SS/DV - Introduction to Women and Gender Studies **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 1270 - Analysis of Argument **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**

Elective Courses (12 credit hours)

**Note:**

*See department advisor for an approved list of non-Communication Department courses for the tracks (12 credit hours).*

## **Multimedia Journalism Emphasis, Communication (BA)**

### **Communication Major**

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

## Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BA (12 credit hours)

*Complete either Option 1 or Option 2.*

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

## Option 2 - Foreign Language with Language Arts

Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## Multimedia Journalism Emphasis (45 credit hours)

The Multimedia Journalism emphasis teaches students how to collect and write information or produce video and audio content regarding current events--including trends, issues and people--for publication in a website, newspaper, or magazine. The curriculum emphasizes writing skills and video/audio production skills, but students also learn about research, interviewing, editing, layout and design, and legal and ethical issues in journalism.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- Technical Writing
- Web Publishing
- Literary Journalism
- General Reporting
- Sports Journalism

## Required Courses (30 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)** *Must take 3 credits*
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**

Three of the following courses (9 credit hours):

- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**

- COMM 2730 - Digital Radio Production and Broadcast **Credits: (1-3)**
- COMM 2751 - Narrative Digital Filmmaking **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**
- COMM 3891 - Advanced Cooperative Work Experience with KWCR **Credits: (1-3)**
- COMM 3893 - Advanced Cooperative Work Experience with Studio 76 **Credits: (1-3)**
- COMM 4400 - Public Relations Media and Campaigns **Credits: (3)**
- COMM 4440 - Developing and Evaluating Health Communication Campaigns **Credits: (3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as journalism-related topic and with permission of instructor*

Elective Courses (15 credit hours)

*See department advisor for an approved list of additional non-Communication Department courses for the tracks (15 credit hours).*

## Multimedia Journalism Emphasis, Communication Teaching (BA)

### Communication Teaching Major (BS or BA)

- **Program Prerequisite:** Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A minimum of 47-48 of these are required within the major, depending on the selected emphasis. A total of 40 upper-division credit hours is required (courses numbered 3000 and above); a minimum of 24-36 of these are required within the major, depending on the selected emphasis.

### Advisement

Communication students are required to meet with a faculty advisor at least annually for course and program advisement. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to Degree Requirements of this catalog for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. The following courses required for this major will also fulfill general education requirements: COMM 1020 or COMM 2010 and COMM 2110.

## Emphasis Requirements

The State of Utah endorses secondary teachers in two areas of Communication: Speech and Journalism. Accordingly, the Communication Teaching major is divided into two emphasis areas: Communication Studies (Speech) and Multimedia Journalism (Journalism). All Communication Teaching majors must complete one of these two emphasis areas.

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must also complete required and/or elective courses from non-Communication departments.

Communication Courses Required of all Communication Teaching Majors (21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)** \*
  
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

Note:

*\*Students must take either COMM 1020 or COMM 2110 as a foundation course requirement for the Communication Teaching major, whichever is **not** used for Teacher Education Admission requirements.*

## Courses Required to Fulfill the BA (12 credit hours)

*Complete either Option 1 or Option 2.*

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

## Option 2 - Foreign Language with Language Arts

Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## Multimedia Journalism Emphasis (27 credit hours)

### Required Courses (18 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)** or
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 4840 - Teaching Journalism and Advising Student Media in the Secondary School **Credits: (3)**

### Electives (9 credit hours)

Select 9 credit hours of electives from the following with approval from the department's communication education advisor for the Multimedia Journalism emphasis.

- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**

- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**

## **Organizational Communication Emphasis, Communication (BA)**

### **Communication Major**

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

### **Advisement**

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

### **Admission Requirements**

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

### **General Education**

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

### **Emphasis Areas**

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

### Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)** OR
- COMM 1140 - Writing for Workplace Communication **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BA (12 credit hours)

*Complete either Option 1 or Option 2.*

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

### Option 2 - Foreign Language with Language Arts

*Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.*

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## Organizational Communication Emphasis (45 credit hours)

An Organizational Communication emphasis provides students with a foundation employers seek - effective professional communication in the workplace.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- **Generalist:** Does not specialize. The generalist has the communication skills and knowledge to lead groups and develop organizational strategies necessary for management. Rather than focus on the career areas of technical writing or training and development, the generalist combines organizational communication with expertise in a secondary subject of interest. Minors in disciplines such as Spanish, health administration, political science, psychology, or economics are a valuable combination with an Organizational Communication Generalist emphasis.
- **Technical Writing:** Synthesizes technical information into messages easily understood by a given audience. Technical writers produce organizational policy and training manuals, employee newsletters, brochures, grant applications, and annual reports.
- **Training & Development:** Conducts training needs assessments for diverse groups, designs workshops, writes training manuals, evaluates classroom technology and equipment needs, and evaluates training.

### Required Courses (27 credit hours)

- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)** OR
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
  
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3085 - Family Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**

### Required Courses outside the Department (18 credit hours)

Technical Writing track (18 credit hours):

- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3140 - Professional and Technical Editing **Credits: (3)**

- ENGL 3190 - Document Design **Credits: (3)**
- ENGL 4100 - Issues in Professional and Technical Writing **Credits: (3)**
- ENGL 4110 - Content Management **Credits: (3)**
- WEB 1400 - Web Design and Usability **Credits: (3)**

Training & Development track (18 credit hours):

- BSAD 1010 - Introduction to Business **Credits: (3)**
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MGMT 3300 - Human Resource Management **Credits: (3)**
- WEB 3400 - LAMP Stack Web Development **Credits: (3)**  
*See department advisor for approval of an additional non-Communication Department course (3 credits)*

## Public Relations & Advertising Emphasis, Communication (BA)

### Communication Major

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

### Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

### Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

Select one of the following emphasis areas in Communication:

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BA (12 credit hours)

Complete either Option 1 or Option 2.

### Option 1 - Foreign Language

- Select 4 courses (12 credit hours) in a foreign language.

### Option 2 - Foreign Language with Language Arts

Select two courses (6 credit hours) from the following, plus two courses (6 credit hours) in a foreign language.

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**

- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4160 - Contemporary Rhetorical and Communication Theories **Credits: (3)**

## **Public Relations & Advertising Emphasis (45 credit hours)**

The Public Relations & Advertising emphasis provides students with theoretical and practical skills in writing, critical thinking, marketing, advertising, and communicating to influence public opinion across a range of media.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks (15 credits):

- Copywriting
- Health Care Public Relations
- International Public Relations
- Marketing
- Visual Communication

### **Required Courses (21 credit hours)**

- COMM 3130 - News Reporting and Writing **Credits: (3)** OR
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)** *Must take 3 credits*
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- COMM 4400 - Public Relations Media and Campaigns **Credits: (3)** or
- COMM 4440 - Developing and Evaluating Health Communication Campaigns **Credits: (3)**
- ***Non-Communication Requirement Required for Major (3 credits)***
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**

- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as public relations-related topic and with permission of instructor*

Elective Courses (15 credit hours)

**Note:**

*See department advisor for an approved list of non-Communication Department courses for the tracks (15 credit hours).*

## **Civic Advocacy Emphasis, Communication (BS)**

### **Communication Major**

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

### **Advisement**

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

### **Admission Requirements**

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

### **General Education**

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

Select one of the following emphasis areas in Communication:

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BS (12 credit hours)

Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
- ZOOL 1030 LS - The Nature of Sex **Credits: (3)**

## Civic Advocacy Emphasis (45 credit hours)

The mission of the Civic Advocacy emphasis is to educate students who wish to serve as advocates in the interest of the public good. Those who might benefit from this interdisciplinary emphasis include students who want to become attorneys, legislators, environmental advocates, animal rights activists, religious leaders, homeless advocates, politicians, children's advocates, advocates for minority and marginalized populations, etc.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- Environmental Advocacy
- Ethnic Studies/Ethnic Advocacy
- Legal Advocacy
- Public Policy Advocacy
- Religion Advocacy
- Women's Advocacy

### Required Courses (27 credit hours)

- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2270 - Argumentation and Debate **Credits: (3)** or
- COMM 1270 - Analysis of Argument **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)** or
- COMM 3090 - Gender and Communication **Credits: (3)**

Three of the following courses (9 credit hours):

- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**
- COMM 3891 - Advanced Cooperative Work Experience with KWCR **Credits: (1-3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**
- COMM 3893 - Advanced Cooperative Work Experience with Studio 76 **Credits: (1-3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as "Political Communication"*

Elective Courses (18 credit hours)

*See department advisor for an approved list of additional non-Communication Department courses for the tracks (18 credit hours).*

## Communication (BS)

### Areas of Emphasis

Select one of the following areas of emphasis

- Civic Advocacy Emphasis, Communication (BS)
- Communication Studies Emphasis, Communication Teaching (BS)
- Digital Media Emphasis, Communication (BS)
- Interpersonal & Family Communication Emphasis, Communication (BS)
- Multimedia Journalism Emphasis, Communication (BS)
- Multimedia Journalism Emphasis, Communication Teaching (BS)
- Organizational Communication Emphasis, Communication (BS)
- Public Relations & Advertising Emphasis, Communication (BS)

## Communication Studies Emphasis, Communication Teaching (BS)

### Communication Teaching Major (BS or BA)

- **Program Prerequisite:** Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A minimum of 47-48 of these are required within the major, depending on the selected emphasis. A total of 40 upper-division credit hours is required (courses numbered 3000 and above); a minimum of 24-36 of these are required within the major, depending on the selected emphasis.

### Advisement

Communication students are required to meet with a faculty advisor at least annually for course and program advisement. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to Degree Requirements of this catalog for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. The following courses required for this major will also fulfill general education requirements: COMM 1020 or COMM 2010 and COMM 2110.

## Emphasis Requirements

The State of Utah endorses secondary teachers in two areas of Communication: Speech and Journalism. Accordingly, the Communication Teaching major is divided into two emphasis areas: Communication Studies (Speech) and Multimedia Journalism (Journalism). All Communication Teaching majors must complete one of these two emphasis areas.

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must also complete required and/or elective courses from non-Communication departments.

Communication Courses Required of all Communication Teaching Majors (21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)** \*
  
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

Note:

*\*Students must take either COMM 1020 or COMM 2110 as a foundation course requirement for the Communication Teaching major, whichever is **not** used for Teacher Education Admission requirements.*

## Courses Required to Fulfill the BS (12 credit hours)

*Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.*

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**

- ZOO 1020 LS - Human Biology **Credits: (3)**
- ZOO 1030 LS - The Nature of Sex **Credits: (3)**

## Communication Studies Emphasis (27 credit hours)

### Courses Required (18 credit hours)

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**
- COMM 4850 - Teaching Speech and Directing Speech Activities in the Secondary School **Credits: (3)**

### Electives (9 credit hours)

Select 9 credit hours of electives from the following with approval from the department's communication education advisor for the Communication Studies emphasis.

- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**

## Digital Media Emphasis, Communication (BS)

### Communication Major

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.

## Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BS (12 credit hours)

*Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.*

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**

- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOO 1020 LS - Human Biology **Credits: (3)**
- ZOO 1030 LS - The Nature of Sex **Credits: (3)**

## Digital Media Emphasis (45 credit hours)

An emphasis in Digital Media will teach students about the importance of deadlines, budgets and the impact their actions have on a production team. Advanced students will gain understanding about the art and power of communicating messages through video, audio, and the Web.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- **Entertainment:** acquire skills in production, writing, and content development to prepare to pursue further graduate study and careers within the entertainment industry.
- **Digital Media Production:** acquire skills producing, writing, shooting, editing, directing, and distributing video content. Focused on creating and sharing institutional, educational, and commercial video productions.

## Required Courses (30 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 4750 - Advanced Cinematography and Editing **Credits: (3)**
- COMM 4760 - Media Management and Distribution **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 2730 - Digital Radio Production and Broadcast **Credits: (1-3)** (3 semesters at 1 credit hour each)
- COMM 2751 - Narrative Digital Filmmaking **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3200 - Live Event Production **Credits: (1-3)**

- COMM 3220 - Editing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**
- COMM 3891 - Advanced Cooperative Work Experience with KWCR **Credits: (1-3)**
- COMM 3893 - Advanced Cooperative Work Experience with Studio 76 **Credits: (1-3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**
- COMM 4440 - Developing and Evaluating Health Communication Campaigns **Credits: (3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as electronic media-related topic and with permission of instructor*
- COMM 4800 - Special Study and Individual Projects **Credits: (1-3)**

### Elective Courses (15 credit hours)

Note:

*See department advisor for an approved list of non-Communication Department courses for the tracks (15 credit hours).*

## Interpersonal & Family Communication Emphasis, Communication (BS)

### Communication Major

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

## Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)** OR
- COMM 1140 - Writing for Workplace Communication **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BS (12 credit hours)

Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
- ZOOL 1030 LS - The Nature of Sex **Credits: (3)**

## Interpersonal & Family Communication Emphasis (45 credit hours)

The Interpersonal & Family Communication emphasis is designed to help students understand, explain, and improve friendship, marriage, family, and other meaningful long- and short-term interpersonal relationships. Communication is the central enabling feature or framework through which we all function, create, and share meaning, sustain identities, and negotiate our relationships with each other and the rest of the world. This program of study will teach students to understand the complex, dynamic relationships.

### Required Courses (24 credit hours)

- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3085 - Family Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**

#### **Required Outside the Department (6 credits)**

- CHF 1400 - Marriage and Romantic Relationships **Credits: (3)** or
- CHF 2400 SS/DV - Family Relations **Credits: (3)**
  
- WGS 1500 SS/DV - Introduction to Women and Gender Studies **Credits: (3)**

### Three of the following courses (9 credit hours)

- COMM 1270 - Analysis of Argument **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**

- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**

Elective Courses (12 credit hours)

**Note:**

*See department advisor for an approved list of non-Communication Department courses for the tracks (12 credit hours).*

## Multimedia Journalism Emphasis, Communication (BS)

### Communication Major

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

### Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

### Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

Select one of the following emphasis areas in Communication:

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BS (12 credit hours)

Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
- ZOOL 1030 LS - The Nature of Sex **Credits: (3)**

## Multimedia Journalism Emphasis (45 credit hours)

The Multimedia Journalism emphasis teaches students how to collect and write information or produce video and audio content regarding current events--including trends, issues and people--for publication in a website, newspaper, or magazine. The curriculum emphasizes writing skills and video/audio production skills, but students also learn about research, interviewing, editing, layout and design, and legal and ethical issues in journalism.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- Technical Writing
- Web Publishing
- Literary Journalism
- General Reporting
- Sports Journalism

### Required Courses (30 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)** *Must take 3 credits*
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**

Three of the following courses (9 credit hours):

- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2730 - Digital Radio Production and Broadcast **Credits: (1-3)**
- COMM 2751 - Narrative Digital Filmmaking **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**
- COMM 3891 - Advanced Cooperative Work Experience with KWCR **Credits: (1-3)**
- COMM 3893 - Advanced Cooperative Work Experience with Studio 76 **Credits: (1-3)**
- COMM 4400 - Public Relations Media and Campaigns **Credits: (3)**
- COMM 4440 - Developing and Evaluating Health Communication Campaigns **Credits: (3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as journalism-related topic and with permission of instructor*

Elective Courses (15 credit hours)

*See department advisor for an approved list of additional non-Communication Department courses for the tracks (15 credit hours).*

## **Multimedia Journalism Emphasis, Communication Teaching (BS)**

### **Communication Teaching Major (BS or BA)**

- **Program Prerequisite:** Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A minimum of 47-48 of these are required within the major, depending on the selected emphasis. A total of 40 upper-division credit hours is required (courses numbered 3000 and above); a minimum of 24-36 of these are required within the major, depending on the selected emphasis.

### **Advisement**

Communication students are required to meet with a faculty advisor at least annually for course and program advisement. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

### **Admission Requirements**

Declare your program of study at the Communication Department office, Elizabeth Hall 330. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

### **General Education**

Refer to Degree Requirements of this catalog for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. The following courses required for this major will also fulfill general education requirements: COMM 1020 or COMM 2010 and COMM 2110.

### **Emphasis Requirements**

The State of Utah endorses secondary teachers in two areas of Communication: Speech and Journalism. Accordingly, the Communication Teaching major is divided into two emphasis areas: Communication Studies (Speech) and Multimedia Journalism (Journalism). All Communication Teaching majors must complete one of these two emphasis areas.

### **Major Course Requirements for BS or BA Degree**

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must also complete required and/or elective courses from non-Communication departments.

## Communication Courses Required of all Communication Teaching Majors (21 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)** \*
  
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

### Note:

*\*Students must take either COMM 1020 or COMM 2110 as a foundation course requirement for the Communication Teaching major, whichever is **not** used for Teacher Education Admission requirements.*

## Courses Required to Fulfill the BS (12 credit hours)

*Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.*

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
- ZOOL 1030 LS - The Nature of Sex **Credits: (3)**

## Multimedia Journalism Emphasis (26 credit hours)

### Required Courses (18 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
  
- COMM 2250 - Essentials of Digital Media **Credits: (3)** OR
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
  
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 4840 - Teaching Journalism and Advising Student Media in the Secondary School **Credits: (3)**

## Electives (6 credit hours)

*Select 6 credit hours of electives from the following with approval from the department's communication education advisor for the Multimedia Journalism emphasis.*

- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**

# Organizational Communication Emphasis, Communication (BS)

## Communication Major

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

## Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

Select one of the following emphasis areas in Communication:

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)** OR
- COMM 1140 - Writing for Workplace Communication **Credits: (3)**
  
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BS (12 credit hours)

Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**

- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
- ZOOL 1030 LS - The Nature of Sex **Credits: (3)**

## Organizational Communication Emphasis (45 credit hours)

An Organizational Communication emphasis provides students with a foundation employers seek - effective professional communication in the workplace.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks:

- **Generalist:** Does not specialize. The generalist has the communication skills and knowledge to lead groups and develop organizational strategies necessary for management. Rather than focus on the career areas of technical writing or training and development, the generalist combines organizational communication with expertise in a secondary subject of interest. Minors in disciplines such as Spanish, health administration, political science, psychology, or economics are a valuable combination with an Organizational Communication Generalist emphasis.
- **Technical Writing:** Synthesizes technical information into messages easily understood by a given audience. Technical writers produce organizational policy and training manuals, employee newsletters, brochures, grant applications, and annual reports.
- **Training & Development:** Conducts training needs assessments for diverse groups, designs workshops, writes training manuals, evaluates classroom technology and equipment needs, and evaluates training.

### Required Courses (27 credit hours)

- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)** OR
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 2550 - Communication in Professional Settings **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3085 - Family Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**

## Required Courses outside the Department (18 credit hours)

### Technical Writing track (18 credit hours):

- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3140 - Professional and Technical Editing **Credits: (3)**
- ENGL 3190 - Document Design **Credits: (3)**
- ENGL 4100 - Issues in Professional and Technical Writing **Credits: (3)**
- ENGL 4110 - Content Management **Credits: (3)**
- WEB 1400 - Web Design and Usability **Credits: (3)**

### Training & Development track (18 credit hours):

- BSAD 1010 - Introduction to Business **Credits: (3)**
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MGMT 3300 - Human Resource Management **Credits: (3)**
- WEB 3400 - LAMP Stack Web Development **Credits: (3)**  
*See department advisor for approval of an additional non-Communication Department course (3 credits)*

# Public Relations & Advertising Emphasis, Communication (BS)

## Communication Major

- **Program Prerequisite:** Not required.
- **Minor:** Students may complete a minor approved by their academic advisor OR one of the tracks associated with any of the six interdisciplinary emphasis areas: Civic Advocacy, Digital Media, Interpersonal & Family Communication, Multimedia Journalism, Organizational Communication, and Public Relations & Advertising. A student may not receive both a major and a minor from the Department of Communication.
- **Grade Requirements:** A grade of "C" or better in courses is required for this major (a grade of "C-" is not acceptable), in addition to an overall GPA of 2.00 or higher for all courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper-division credit hours is required (courses numbered 3000 and above). Between 27-35 credits of upper-division is required within the major, depending on the selected emphasis.

*To enroll in upper-division Communication courses, a student must hold upper-division standing in the university. Students must complete at least 50 percent of their Communication course-work at Weber State University in order to receive a major or a minor in Communication.*

## Advisement

Students are encouraged to meet with the appropriate department advisor depending on their selected emphasis. Refer to the Communication Department website for a current list of department advisors - [weber.edu/communication](http://weber.edu/communication).

## Admission Requirements

Declare your program of study at the Communication Department office, Elizabeth Hall 330. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for either Bachelor of Arts or Bachelor of Science requirements. See specific requirements for the BA and BS under the major course requirements. The following courses, required for the Communication major, will also satisfy general education requirements: COMM 1020, COMM 2010, and COMM 2110.

## Emphasis Areas

**Select one of the following emphasis areas in Communication:**

- Civic Advocacy
- Digital Media
- Interpersonal & Family Communication
- Multimedia Journalism
- Organizational Communication
- Public Relations & Advertising

## Major Course Requirements for BS or BA Degree

Students, regardless of their emphasis, must successfully complete required and elective Communication courses specified for each emphasis. Students must complete a minor approved by the department or the classes required in an interdisciplinary track.

Required Courses for Major (24 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4890 - Communication Internship **Credits: (1-3)**
- COMM 4990 - Senior Seminar **Credits: (3)**

## Courses Required to Fulfill the BS (12 credit hours)

*Select 4 courses (12 credit hours) from the following. Pick 3 credit hours from Physical Sciences and 3 credit hours from Life Sciences.*

- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3150 - Communication Research Methods **Credits: (3)**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)**
- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1350 PS - Principles of Earth Science **Credits: (3)**
- HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**

- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)**
- HNRS 1510 LS - Perspectives in the Life Sciences **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
- ZOOL 1030 LS - The Nature of Sex **Credits: (3)**

## **Public Relations & Advertising Emphasis (45 credit hours)**

The Public Relations & Advertising emphasis provides students with theoretical and practical skills in writing, critical thinking, marketing, advertising, and communicating to influence public opinion across a range of media.

Students must complete a minor approved by their advisor or select one of the following interdisciplinary tracks (15 credits):

- Copywriting
- Health Care Public Relations
- International Public Relations
- Marketing
- Visual Communication

### **Required Courses (21 credit hours)**

- COMM 3130 - News Reporting and Writing **Credits: (3)** OR
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)** *Must take 3 credits*
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3400 - Introduction to Public Relations **Credits: (3)**
- COMM 3440 - Public Relations Writing **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**
- COMM 4400 - Public Relations Media and Campaigns **Credits: (3)** or
- COMM 4440 - Developing and Evaluating Health Communication Campaigns **Credits: (3)**

#### ***Non-Communication Requirement Required for Major (3 credits)***

- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**

Three of the following courses (9 credit hours)

- COMM 1500 - Introduction to Mass Communication **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3080 - Intercultural Communication **Credits: (3)**
- COMM 3090 - Gender and Communication **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3460 - Public Relations and Social Media **Credits: (3)**

- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 3892 - Advanced Cooperative Work Experience with Public Relations **Credits: (1-3)**
- COMM 4500 - Topics in Communication **Credits: (3)** *only when taught as public relations-related topic and with permission of instructor*

Elective Courses (15 credit hours)

**Note:**

*See department advisor for an approved list of non-Communication Department courses for the tracks (15 credit hours).*

## Communication (BIS)

- **Grade Requirements:** A grade of "C" or better in all courses.
- **Credit Hour Requirements:** A minimum of 24 credit hours.

### Course Requirements for BIS

Communication Courses Required (15 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 1500 - Introduction to Mass Communication **Credits: (3)** or
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**

Additional Electives (9 credit hours)

*The required courses listed add up to 15 credits. The rest of your contract will consist of at least 3 elective courses you negotiate with an advisor.*

## Communication Minor

- **Grade Requirements:** A grade of "C" or better in all courses.
- **Credit Hour Requirements:** A minimum of 24 credit hours.

### Course Requirements for Minor

Communication Courses Required (15 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 1130 - Media Writing **Credits: (3)**
  
- COMM 1500 - Introduction to Mass Communication **Credits: (3)** or
- COMM 2010 HU - Mass Media and Society **Credits: (3)**
  
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**

Electives (9 credit hours, including at least 6 upper-division)

*Select 3 courses (9 credit hours) in consultation with and approval by your department advisor, 2 (6 credit hours) of which must be upper-division.*

Note:

*A maximum of 3 credit hours total from the following Communication courses may be counted for the minor: COMM 2210, COMM 2730, COMM 3890, COMM 3891, COMM 3892, COMM 3893, COMM 4210.*

## Communication Studies Emphasis, Communication Teaching Minor

- **Grade Requirements:** A grade of "C" or better in minor courses.
- **Credit Hour Requirements:** A minimum of 24 credit hours.

*Students who select the Communication Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).*

### Course Requirements for Minor

Communication Studies Emphasis (24 credit hours)

Communication Courses Required (18 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)** \*
  
- COMM 1130 - Media Writing **Credits: (3)**

- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3000 - Communication Theory **Credits: (3)**
- COMM 3820 - Persuasive Communication **Credits: (3)**
- COMM 4850 - Teaching Speech and Directing Speech Activities in the Secondary School **Credits: (3)**

Note:

*\* Students must take either COMM 1020 or COMM 2110 as a foundation course requirement for the Communication Teaching minor, whichever is **not** used for Teacher Education admission requirements.*

Electives (6 credit hours)

*Select 6 credit hours from the following in consultation with and approved by the department's communication education advisor for the Communication Studies emphasis.*

- COMM 2010 HU - Mass Media and Society **Credits: (3)**
- COMM 3050 - Interpersonal Communication and Conflict Management **Credits: (3)**
- COMM 3060 - Listening and Interviewing **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- COMM 3550 - Organizational Communication **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4150 - Rhetorical Theory and Criticism **Credits: (3)**

## Multimedia Journalism Emphasis, Communication Teaching Minor

- **Grade Requirements:** A grade of "C" or better in minor courses.
- **Credit Hour Requirements:** A minimum of 24 credit hours.

*Students who select the Communication Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).*

### Course Requirements for Minor

Multimedia Journalism Emphasis (24 credit hours)

Communication Courses Required (18 credit hours)

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)** \*
- COMM 1130 - Media Writing **Credits: (3)**
- COMM 1500 - Introduction to Mass Communication **Credits: (3)** or
- COMM 2010 HU - Mass Media and Society **Credits: (3)**

- COMM 3130 - News Reporting and Writing **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- COMM 4840 - Teaching Journalism and Advising Student Media in the Secondary School **Credits: (3)**

Note:

*\*Students must take either COMM 1020 or COMM 2110 as a foundation course requirement for the Communication Teaching Minor, whichever is **not** used for Teacher Education Admission requirements.*

Electives (6 credit hours)

*Select 6 credit hours from the following in consultation with and approved by the department's communication education advisor for the Multimedia Journalism emphasis.*

- COMM 1560 - Audio Production and Performance **Credits: (3)**
- COMM 2200 - In-studio Video Production and Performance **Credits: (3)**
- COMM 2250 - Essentials of Digital Media **Credits: (3)**
- COMM 3220 - Editing **Credits: (3)**
- COMM 3350 - Visual Communication **Credits: (3)**
- COMM 3740 - Writing for Screen and Television **Credits: (3)**
- COMM 3780 - Broadcast News Writing and Production **Credits: (3)**
- COMM 3890 - Advanced Cooperative Work Experience with Signpost **Credits: (1-3)**
- COMM 4130 - In-depth and Investigative Journalism **Credits: (3)**

## Communication Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of English Language and Literature

**Department Chair:** Hal Crimmel

**Location:** Elizabeth Hall, Room 435

**Telephone Contact:** Kimberly Webb 801-626-6251

**Professors:** James Russell Burrows, Hal Crimmel, Becky Jo Gesteland, Mark LeTourneau, Karen Marguerite Moloney, Scott Rogers, John Schwiebert, Sally Bishop Shigley, Mahalingam Subbiah, Mikel Vause, Michael Wutz, James E. Young;

**Associate Professors:** Timothy Conrad, Siân Griffiths, Susan McKay, Shelley Thomas; **Assistant Professors:** Jason Barrett-Fox, Christy Call, Rebekah Cumpsty, David Hartwig, Julia Panko, Emily Petersen, Ryan Ridge, Abraham Smith;

**Instructors:** Toni Asay, Jan Hamer, Kyra Hudson, Brooke Kelly, Becky Marchant, Sylvia Newman, Eleanor Olson, José Otero, William Pollett, Laura Stott, Sarah Vause, Gail Yngve.

The Department of English Language and Literature offers a broad spectrum of language, literature and writing courses. English majors and minors, English teaching majors and minors, English majors with professional and technical writing emphasis and professional and technical writing minors, and English majors with creative writing emphasis, in

consultation with English department advisors, can select programs individually designed to satisfy academic requirements. Furthermore, students preparing for careers in law, medicine, business, public relations and government service may find departmental courses highly beneficial. The English Department has also designed courses for the general student in introductory and intermediate writing.

Students transferring to Weber State as English majors, with most of their junior and senior status completed, are required to take a minimum of 9 upper division credit hours, minors a minimum of 6 upper division credit hours. This requirement also applies to transfer graduate students.

### English Composition Requirement

Students seeking the Associate of Applied Science degree must pass ENGL 1010 with a "C" grade (2.0) or better in order to satisfy the composition requirement. Students seeking any other degree must successfully complete ENGL 2010 with a grade of "C" or higher. Students placed in developmental English courses ENGL 0900 and ENGL 0955 must also pass those courses with grades of "C" or higher. Please note that English composition courses, whether developmental or not, are sequential and can not be taken out of numerical order.

Successful completion of ENGL 2010 with a grade of C or better satisfies the University core requirement for Composition. Entrance into ENGL 2010 can be accomplished in the following ways: 1) passing ENGL 1010 with a grade of C or better, 2) passing the AP language and composition or Literature and composition examination with a score of 3 or better, 3) achieving an ACT English and Reading score of 29 or better, 4) a CLEP with essay test with a score of 50 or better, or 5) articulated transfer credit from another regionally accredited college or university.

### English Placement

Students are placed in the English developmental/composition sequence of courses either by ACT sub-scores or by Accuplacer scores.

ACT Sub-scores*	Accuplacer Scores	Course Placement
ACT English and Reading sub-score 29 or higher	Not Applicable	ENGL 2010
ACT English and Reading sub-scores <b>both</b> 17 or above	Reading Comprehension and Sentence Skills scores <b>both</b> 90 or above	ENGL 1010
<b>Lowest</b> ACT English or Reading score from 13-16	<b>Lowest</b> Reading Comprehension or Sentence Skill score from 40-89	ENGL 0955 or referred to the ESL office for non-native English speakers
<b>Lowest</b> ACT English or Reading score 12 or below	<b>Lowest</b> Reading Comprehension or Sentence Skill score 39 or below	ENGL 0900 or referred to the ESL office for non-native English speakers

\*ACT scores in English and Reading expire after 4 years. ACCUPLACER scores expire after 48 months.

ENGL 0960 does not satisfy the Developmental English Requirement for students admitted to Weber State University after Fall Semester 2005. Students admitted after Fall Semester 2005 who take ENGL 0960 will still be required to take ENGL 0900 and/or ENGL 0955, depending on their English placement.

International students who meet the University's TOEFL and IELTS requirements for admission are cleared to register for ENGL 1010.

International students who do not meet the University's TOEFL or IELTS requirements for admission and resident students for whom English is a second language who score 89 or below on the Accuplacer Test are required to take the LEAP Placement Test and complete appropriate ESL courses according to the test results. ESL classes fulfill foreign language credit toward a BA and AA degree or elective credit toward a BS and AS degree. Refer to the Learning English for Academic Purposes (LEAP) section of this catalog.

## Interdisciplinary Minors

The English Department participates in the Asian Studies, Environmental Studies and Linguistics Minor Programs. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

The English Department offers **Face-to-Face (F2F)**, **Hybrid**, and **Online (OL)** classes.

The following definitions are intended to help faculty and students understand the differences between **Face-to-Face (F2F)**, **Hybrid**, and **Online (OL)** classes taught in the English Department.

1. If less than 15% of the class sessions are online, a course will be designated **Face-to-Face (F2F)**-the current default for courses.
2. If 30–70% of class sessions are conducted online, normally but not exclusively in Canvas, courses will be designated **Hybrid**. This is consistent with *WSU Online's* definition.
3. Classes that are 100% online will be defined as **Online (OL)**.
4. Classes will be designated as **F2F**, **Hybrid**, or **OL** prior to the time the department finalizes schedules for any given semester. The designation may not be changed once registration has opened or during the semester except in the event of extenuating circumstances such as injury, illness or university closure; Department Chair approval is required.
5. Within the various categories (**F2F**, **Hybrid**, **Online**) the table below illustrates how many online class sessions students can expect in each category. This number is dependent on how often a class meets: once a week (mainly evening classes), twice a week (TR or MW), and three times a week (MWF):

Course Scheduled As:	How Many Sessions May Be Online?		
	F2F (up to 15% online)	Hybrid (30-70% online)	Online (100% online)
1x/week: (14-15 classes/semester)	2 sessions, maximum	Minimum 4 / Maximum 10 sessions	100%
2x/week: (TR or MW: 30 classes/semester)	4-5 sessions, maximum	Minimum 9 / Maximum 21 sessions	100%
3x/week: (MWF: 42 classes/semester)	6 sessions, maximum	Minimum 13 / Maximum 30 sessions	100%

## Professional and Technical Writing Certificate of Proficiency

- **Program Prerequisite:** Concurrent or previous completion of a Bachelor's Degree from Weber State University or other regionally accredited institution.
- **Grade Requirements:** A grade of "C" or better in each required course.
- **Credit Hour Requirements:** A total of 18 credit hours of upper division technical writing courses.

## Course Requirements for Certificate of Proficiency

### Professional and Technical Writing Courses Required (18 credit hours)

- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3140 - Professional and Technical Editing **Credits: (3)**
- ENGL 3190 - Document Design **Credits: (3)**
- ENGL 4100 - Issues in Professional and Technical Writing **Credits: (3)**
- ENGL 4110 - Content Management **Credits: (3)**
- ENGL 4120 - Seminar and Practicum in Professional and Technical Writing **Credits: (3)**

## Creative Writing Emphasis, English (BA)

- **Program Prerequisite:** Not required.
- **Minor:** Required.
- **Grade Requirements:** A 2.0 or better in all courses required for this major in addition to an overall GPA of 2.00 (C) or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 39 of these must be English courses. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 36 of these must be English courses.

### Advisement

English Creative Writing Emphasis majors are expected to meet with a faculty advisor at least twice annually for course and program advisement. Please call 801-626-6251 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study at the English department office, Elizabeth Hall 413. No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

*Consult with a departmental advisor for detailed general education guidelines.*

**For CA**, students must take ENGL 2250 (Intro to Creative Writing. This course will be required before you may take upper division creative writing coursework.)

## Major Course Requirements for BA Degree

A minimum of 39 credit hours is required in valid English courses, of which at least 33 credit hours must be upper division.

### English Courses Required (39 credit hours)

The following courses (ENGL 2200 should be taken early in the major; ENGL 4940 should be taken in the final year)

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 3080 - Critical Approaches to Literature **Credits: (3)**
- ENGL 4940 - CW: Senior Project **Credits: (3)**

*Students choose two literature surveys from the five 3000-level courses*

- ENGL 3610 - American Literature I **Credits: (3)** or
- ENGL 3620 - American Literature II **Credits: (3)**
  
- ENGL 3650 - British Literature I **Credits: (3)** or
- ENGL 3660 - British Literature II **Credits: (3)** or
- ENGL 3510 HU/DV - World Literature **Credits: (3)**

Literature (two of the following)

- ENGL 4560 - Contemporary Literature for Creative Writers **Credits: (3)**
- Students choose one other 4000-level literature course **Credits: (3)**

Introductory Writing Courses (one of the following)

- ENGL 2260 CA - CW: Introduction to Writing Short Fiction **Credits: (3)**
- ENGL 2270 CA - CW: Introduction to Writing Poetry **Credits: (3)**

Advanced Writing Courses (6 credits of the following)

- ENGL 3240 - CW: Writing Creative Nonfiction **Credits: (3)**
- ENGL 3250 - CW: Advanced Fiction Writing **Credits: (3)**
- ENGL 3260 - CW: Poetry Writing **Credits: (3)**
- ENGL 4930 - Visiting Writing Master Class **Credits: (1)** (repeatable four times)

Linguistics (one of the following)

- ENGL 3010 - Introduction to Linguistics **Credits: (3)**
- ENGL 3030 - Structure of English **Credits: (3)**
- ENGL 3040 - History of the English Language **Credits: (3)**

Forms and Craft Courses (any one of the following)

- ENGL 3350 - Studies in Literary Genres **Credits: (3)**
- ENGL 3355 - CW: Creative Nonfiction Forms and Craft **Credits: (3)**
- ENGL 3360 - CW: Short Story Forms and Craft **Credits: (3)**
- ENGL 3365 - CW: Novel Forms and Craft **Credits: (3)**
- ENGL 3370 - CW: Poetic Forms and Craft **Credits: (3)**

- ENGL 3375 - CW: Forms and Craft of Notebooks and Journals **Credits: (3)**
- ENGL 3380 - CW: Screenwriting Form and Craft **Credits: (3)**

Editing and Publication (3 credit hours)

- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3050 - Grammar, Style, and Usage for Advanced Writing **Credits: (3)**
- ENGL 4960 - Metaphor: Editing the Student Literary Journal **Credits: (3)**

Language Courses Required to fulfill the BA

English majors must take either 12-credit hours of a foreign language or 6 hours of a foreign language and 6 hours of language arts. Any 3000 or 4000 level English class may be used as a language arts course. No double dipping.

## English (BA)

- **Program Prerequisite:** Not required.
- **Minor:** Required.
- **Grade Requirements:** A 2.0 or better in all courses required for this major in addition to an overall GPA of 2.00 (C) or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 39 of these must be valid English courses. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 36 of these must be English courses.

### Advisement

English majors are required to meet with a faculty advisor at least twice annually for course and program advisement. If this requirement is not met, students may not be allowed to register for classes within their major. Call 801-626-6251 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study at the English department office, Elizabeth Hall 413. No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

*Consult with a departmental advisor for detailed general education guidelines.*

## Major Course Requirements for BA Degree

A minimum of 39 credit hours is required in English courses, of which at least 36 credit hours must be upper division (3000-4000 level courses). A Minor is also required.

### Required English Courses (30 credit hours)

Foundation - 6 credit hours

**1. One 2000-level course (3 credits) meeting University General Education Outcomes, excluding ENGL 2010. Those courses include the following, along with future courses bearing the HU designation:**

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 2230 HU/DV - Introduction to Drama **Credits: (3)**
- ENGL 2240 HU/DV - Introduction to Poetry **Credits: (3)**
- ENGL 2510 HU/DV - Masterpieces of Literature **Credits: (3)**
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**

**2. Critical Approaches Course (to be taken early in the major) / Prerequisite ENGL 2010:**

- ENGL 3080 - Critical Approaches to Literature **Credits: (3)**

Core - 6 credit hours

**1. American Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3610 - American Literature I **Credits: (3)**
- ENGL 3620 - American Literature II **Credits: (3)**

**2. British Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3650 - British Literature I **Credits: (3)**
- ENGL 3660 - British Literature II **Credits: (3)**

Areas of Specialization - 18 credit hours

Choose **two** courses each (6 credit hours) from **three of the four** areas listed below:

Area 1: American and British Literatures and Language

*Prerequisites as specified for individual courses in course catalog:*

- ENGL 3030 - Structure of English **Credits: (3)**
- ENGL 3040 - History of the English Language **Credits: (3)**
- ENGL 3350 - Studies in Literary Genres **Credits: (3)** / Variable Title Course
- ENGL 3500 HU - Introduction to Shakespeare **Credits: (3)**
- ENGL 3750 HU - Topics and Ideas in Literature **Credits: (3)** / Variable Title Course
- ENGL 4520 - American Literature: Early and Romantic **Credits: (3)**
- ENGL 4530 - American Literature: Realism and Naturalism **Credits: (3)**
- ENGL 4540 - American Literature: Modern **Credits: (3)**

- ENGL 4550 - American Literature: Contemporary **Credits: (3)**
- ENGL 4610 - British Literature: Medieval **Credits: (3)**
- ENGL 4620 - British Literature: Renaissance **Credits: (3)**
- ENGL 4630 - British Literature: Neoclassical and Romantic **Credits: (3)**
- ENGL 4640 - British Literature: Victorian **Credits: (3)**
- ENGL 4650 - British Literature: Modern **Credits: (3)**
- ENGL 4660 - British Literature: Contemporary **Credits: (3)**
- ENGL 4710 - Eminent Authors **Credits: (3)** / *Variable Title Course*
- ENGL 4720 - Chaucer **Credits: (3)**
- ENGL 4730 - Studies in Shakespeare **Credits: (3)**
- ENGL 4740 - Milton: Major Prose and Poetry **Credits: (3)**

Area 2: World Literatures and Language

**Courses in this area will focus on world literatures excluding British and American literature / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3010 - Introduction to Linguistics **Credits: (3)**
- ENGL 3352 - Studies in World Literary Genres **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- ENGL 3730 - Literatures of Cultures and Places **Credits: (3)** / *Variable Title Course*
- ENGL 3752 - Topics and Ideas in World Literature and Language **Credits: (3)** / *Variable Title Course*
- ENGL 4712 - Eminent World Authors **Credits: (3)** / *Variable Title Course*
- ENGL 4750 - Classical Literature **Credits: (3)**
- ENGL 4760 - Irish Literature **Credits: (3)**

Area 3: Cultural and Media Studies

**Courses in this area will focus on topics related to the study of culture and media / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3300 - Children's Literature **Credits: (3)**
- ENGL 3353 - Genres in Cultural and Media Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3550 - Multicultural and Ethnic Literature in America **Credits: (3)**
- ENGL 3580 - Regional Literature in America **Credits: (3)** / *Variable Title Course*
- ENGL 3753 - Topics and Ideas in Cultural and Media Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3820 - History of Literary Criticism **Credits: (3)**
- ENGL 4713 - Eminent Authors in Cultural and Media Studies **Credits: (3)**

Area 4: Writing and Interdisciplinary Studies

**Courses in this area will focus on writing and/or the study of other disciplines as they connect with literature, language, or the craft of writing / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3050 - Grammar, Style, and Usage for Advanced Writing **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**
- ENGL 3250 - CW: Advanced Fiction Writing **Credits: (3)**
- ENGL 3260 - CW: Poetry Writing **Credits: (3)**
- ENGL 3270 - Magazine Article Writing **Credits: (3)**
- ENGL 3280 - Biographical Writing **Credits: (3)**
- ENGL 3354 - Genres in Writing and Interdisciplinary Studies **Credits: (3)** / *Variable Title Course*

- ENGL 3520 HU - Literature of the Natural World **Credits: (3)**
- ENGL 3530 - The Literature of Business and Economics **Credits: (3)**
- ENGL 3740 - The Literature of the Sacred **Credits: (3)** / *Variable Title Course*
- ENGL 3754 - Topics and Ideas in Writing and Interdisciplinary Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3880 - Philosophy and Literature **Credits: (3)**

### Electives - 9 credit hours minimum

To complete the required 39 credit hours, majors in the English BA program may choose as electives any 3000 and 4000 level English courses, including those listed above, but excluding those they wish to count as language arts courses in partial fulfillment of the Bachelor of Arts requirement (see "Language Courses Required to fulfill the BA" below). / *Prerequisites as specified for individual courses in course catalog.*

### Language Courses Required to Fulfill the BA

English majors must take either 12-credit hours of a foreign language or 6 hours of a foreign language and 6 hours of language arts. Any 3000 or 4000 level English class may be used as a language arts course, but **one** course (3 credits) with a primary emphasis on language or writing is strongly recommended. Courses chosen for the BA language requirement cannot also be counted toward the English major.

## English Teaching (BA)

- **Program Prerequisite:** Must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** A teaching minor is required.
- **Grade Requirements:** A 2.0 or better in all courses required for this major.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 39 of these must be English courses. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 36 of these must be English courses.

### Advisement

To expedite their program, English Teaching Majors should seek advisement before taking any upper division English courses. The English Teaching Methodology Block must be scheduled in coordination with both Secondary Teacher Education and Student Teaching. Call 801-626-6251 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study at the English department office, Elizabeth Hall 413. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

### General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

*PSY SS1010, COMM HU1020 or COMM HU2110 (take one), CHF SS/DV1500 and one 2000 level Humanities English Literature course are recommended. Consult with a departmental advisor for other detailed general education guidelines.*

## English Teaching Methodology Block

English Teaching Majors must enroll in ENGL 3020, ENGL 3400, ENGL 3410, and ENGL 3420 concurrently following completion of their Secondary Education Core course work and just prior to Student Teaching. As part of this 12-hour block of methods course work, students will be required to complete a grades 7-12 school field experience.

## Student Teaching

Student teaching takes place during Secondary Education Student Teaching. Before student teaching, English majors must have completed all required Education courses and at least 33 credit hours of the required English courses (listed below), including ENGL 3080 - Critical Approaches to Literature, and the Methodology Block. Students must apply for student teaching through Teacher Education according to deadlines set by that department.

## Major Course Requirements for English Teaching BA Degree

*Minimum of 39 credit hours in English courses of which at least 36 credit hours must be upper division (3000-4000 level courses). A Teaching Minor is also required.*

### Required English Courses (36 credit hours)

Foundation - 6 credit hours

**1. One 2000-level course (3 credits) meeting University General Education Outcomes, excluding ENGL 2010. Those courses include the following, along with future courses bearing an HU designation:**

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 2230 HU/DV - Introduction to Drama **Credits: (3)**
- ENGL 2240 HU/DV - Introduction to Poetry **Credits: (3)**
- ENGL 2510 HU/DV - Masterpieces of Literature **Credits: (3)**
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**

**2. Critical Approaches Course (to be taken early in the major) / Prerequisite ENGL 2010:**

- ENGL 3080 - Critical Approaches to Literature **Credits: (3)**

Core - 12 credit hours

**1. American Literature Surveys: (both of the following) / Prerequisite ENGL 2010:**

- ENGL 3610 - American Literature I **Credits: (3)**
- ENGL 3620 - American Literature II **Credits: (3)**

**2. British Literature Surveys: (both of the following) / Prerequisite ENGL 2010:**

- ENGL 3650 - British Literature I **Credits: (3)**
- ENGL 3660 - British Literature II **Credits: (3)**

Areas of Specialization - 6 credit hours

Choose **one** course each (3 credits) from **both** of the areas listed below:

#### World Literatures and Language

**Courses in this area will focus on world literatures excluding British and American literature / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3010 - Introduction to Linguistics **Credits: (3)**
- ENGL 3352 - Studies in World Literary Genres **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- ENGL 3730 - Literatures of Cultures and Places **Credits: (3)** / Variable Title Course
- ENGL 3752 - Topics and Ideas in World Literature and Language **Credits: (3)** / Variable Title Course
- ENGL 4712 - Eminent World Authors **Credits: (3)** / Variable Title Course
- ENGL 4750 - Classical Literature **Credits: (3)**
- ENGL 4760 - Irish Literature **Credits: (3)**

#### Writing and Interdisciplinary Studies

**Courses in this area will focus on writing and/or the study of other disciplines as they connect with literature, language, or the craft of writing / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3050 - Grammar, Style, and Usage for Advanced Writing **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**
- ENGL 3250 - CW: Advanced Fiction Writing **Credits: (3)**
- ENGL 3260 - CW: Poetry Writing **Credits: (3)**
- ENGL 3270 - Magazine Article Writing **Credits: (3)**
- ENGL 3280 - Biographical Writing **Credits: (3)**

#### Methodology Block - 12 credit hours

Take all of the following:

- ENGL 3020 - Introduction to the Study of Language for Teachers **Credits: (3)**
- ENGL 3400 - The Teaching of Literature **Credits: (3)**
- ENGL 3410 - The Teaching of Writing **Credits: (3)**
- ENGL 3420 - Teaching With Young Adult Literature **Credits: (3)**

#### Electives (minimum of 3 credit hours)

To complete the required 39 credit hours, English Teaching majors may choose as electives any 3000 and 4000 level English courses, excluding those they wish to count as language arts courses in partial fulfillment of the Bachelor of Arts requirement (see "Language Courses Required to fulfill the BA" below). / *Prerequisites as specified for individual courses in course catalog.*

English Teaching majors are encouraged to take either ENGL 3500 HU - Introduction to Shakespeare, or ENGL 4730 - Studies in Shakespeare.

#### Language Courses Required to Fulfill the BA

English Teaching majors must take either 12-credit hours of a foreign language or 6 hours of a foreign language and 6 hours of language arts. Any 3000 or 4000 level English class may be used as a language arts course. Courses chosen for the BA language requirement cannot also be counted toward the English major.

# Professional & Technical Writing Emphasis, English (BA)

- **Program Prerequisite:** Not required.
- **Minor:** Required.
- **Grade Requirements:** A 2.0 or better in all courses required for this major in addition to an overall GPA of 2.00 (C) or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 39 of these must be English courses. A total of 40 upper division credit hours is required (courses numbered 3000 or above); a minimum of 36 must be English courses.

## Advisement

English majors are required to meet with a faculty advisor at least twice annually for course and program advisement. If this requirement is not met, students may not be allowed to register for classes within their major. Call 801-626-6251 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study at the English department office, Elizabeth Hall 413. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

*Consult with a departmental advisor for detailed general education guidelines.*

## Major Course Requirements for BA Degree

*A minimum of 39 credit hours is required in English courses, of which at least 36 credit hours must be upper division (3000-4000 level courses). A minor is also required.*

### Required English Courses (30 credit hours)

Foundation - 6 credit hours

**1. One 2000-level course (3 credits) meeting University General Education Outcomes, excluding ENGL 2010. Those courses include the following, along with future courses bearing the HU designation:**

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 2230 HU/DV - Introduction to Drama **Credits: (3)**
- ENGL 2240 HU/DV - Introduction to Poetry **Credits: (3)**
- ENGL 2510 HU/DV - Masterpieces of Literature **Credits: (3)**
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**

**2. Critical Approaches Course (to be taken early in the major) / Prerequisite ENGL 2010:**

- ENGL 3080 - Critical Approaches to Literature **Credits: (3)**

Core - 6 credit hours

**1. American Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3610 - American Literature I **Credits: (3)**
- ENGL 3620 - American Literature II **Credits: (3)**

**2. British Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3650 - British Literature I **Credits: (3)**
- ENGL 3660 - British Literature II **Credits: (3)**

Professional and Technical Writing - 18 credit hours

**Take all of the following:**

- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3140 - Professional and Technical Editing **Credits: (3)**
- ENGL 3190 - Document Design **Credits: (3)**
- ENGL 4100 - Issues in Professional and Technical Writing **Credits: (3)**
- ENGL 4110 - Content Management **Credits: (3)**
- ENGL 4120 - Seminar and Practicum in Professional and Technical Writing **Credits: (3)**

Electives - 9 credit hours minimum

To complete the required 39 credit hours, majors in the Professional & Technical Writing Emphasis, English BA program may choose as electives any 3000 and 4000 level English courses, excluding those they wish to count as language arts courses in partial fulfillment of the Bachelor of Arts requirement (see "Language Courses Required to fulfill the BA" below). / *Prerequisites as specified for individual courses in course catalog.*

### Language Courses Required to Fulfill the BA

English majors must take either 12-credit hours of a foreign language or 6 hours of a foreign language and 6 hours of language arts. Any 3000 or 4000 level English class may be used as a language arts course, but **one** course (3 credits) with a primary emphasis on language or writing is strongly recommended. Courses chosen as electives cannot also count as language arts courses.

## English (BIS)

*The English Department participates in the BIS degree program. For an English concentration, students should take a minimum of 18 credit hours as approved by the English Department. Students may choose either a literature concentration or a writing concentration. BIS students must meet with the English Department Chair to design their English component.*

The Bachelor of Integrated Studies (BIS) best suits the student who has developed a sense of his or her educational and life goals, and who is looking for ways to express those goals through an individualized university program. The BIS Program serves the needs of the student who wants to:

- create a specific academic program
- obtain a broad liberal education
- prepare for particular career goals and/or graduate school

To accomplish these general outcomes, the BIS student completes course work in three different disciplines. As a culminating experience, the student then synthesizes the three disciplines in a capstone project. For information about the requirements of the BIS Program, look at the BIS web site at [weber.edu/bis/](http://weber.edu/bis/).

- **Program Prerequisite:** Enroll into the BIS Program with an interview with the BIS Program Coordinator. Call 626-7713 to talk with the BIS secretary and schedule an appointment.
- **Grade Requirements:** Receive a minimum grade of "C" (2.0) in each of the courses taken for the three emphases in addition to a minimum cumulative GPA of 2.5. Classes listed on the BIS contract must be taken for a letter grade; special exams, CLEP or credit/no credit are not allowed for contract classes.

## English Minor

- **Grade Requirements:** A grade of 2.0 or better in all courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 21 hours of English courses. ENGL 1010 and ENGL 2010 do not count toward an English minor, but ENGL 2010 is a pre-requisite for the required courses and should be taken early.

## Course Requirements for Minor

Required English Courses (21 credit hours)

- ENGL 3080 - Critical Approaches to Literature **Credits: (3)** (early in minor)

Foundation - 6 credit hours

**1. One 2000-level course (3 credits) meeting University General Education Outcomes, excluding ENGL 2010. Those courses include the following, along with future courses bearing the HU designation:**

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 2230 HU/DV - Introduction to Drama **Credits: (3)**
- ENGL 2240 HU/DV - Introduction to Poetry **Credits: (3)**
- ENGL 2510 HU/DV - Masterpieces of Literature **Credits: (3)**
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**

**2. Critical Approaches Course (to be taken early in the minor) / Prerequisite ENGL 2010:**

- ENGL 3080 - Critical Approaches to Literature **Credits: (3)**

Core - 6 credit hours

**1. American Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3610 - American Literature I **Credits: (3)**
- ENGL 3620 - American Literature II **Credits: (3)**

**2. British Literature Surveys: (one of the following) / Prerequisite ENGL 2010 :**

- ENGL 3650 - British Literature I **Credits: (3)**
- ENGL 3660 - British Literature II **Credits: (3)**

Areas of Specialization - 9 credit hours

Choose **one** course each (3 credit hours) from **three of the four** areas listed below:

Area 1: American and British Literatures and Language

*Prerequisites as specified for individual courses in course catalog:*

- ENGL 3030 - Structure of English **Credits: (3)**
- ENGL 3040 - History of the English Language **Credits: (3)**
- ENGL 3350 - Studies in Literary Genres **Credits: (3)** / *Variable Title Course*
- ENGL 3500 HU - Introduction to Shakespeare **Credits: (3)**
- ENGL 3750 HU - Topics and Ideas in Literature **Credits: (3)** / *Variable Title Course*
- ENGL 4520 - American Literature: Early and Romantic **Credits: (3)**
- ENGL 4530 - American Literature: Realism and Naturalism **Credits: (3)**
- ENGL 4540 - American Literature: Modern **Credits: (3)**
- ENGL 4550 - American Literature: Contemporary **Credits: (3)**
- ENGL 4610 - British Literature: Medieval **Credits: (3)**
- ENGL 4620 - British Literature: Renaissance **Credits: (3)**
- ENGL 4630 - British Literature: Neoclassical and Romantic **Credits: (3)**
- ENGL 4640 - British Literature: Victorian **Credits: (3)**
- ENGL 4650 - British Literature: Modern **Credits: (3)**
- ENGL 4660 - British Literature: Contemporary **Credits: (3)**
- ENGL 4710 - Eminent Authors **Credits: (3)** / *Variable Title Course*
- ENGL 4720 - Chaucer **Credits: (3)**
- ENGL 4730 - Studies in Shakespeare **Credits: (3)**
- ENGL 4740 - Milton: Major Prose and Poetry **Credits: (3)**

Area 2: World Literatures and Language

**Courses in this area will focus on world literatures excluding British and American literature /**

*Prerequisites as specified for individual courses in course catalog:*

- ENGL 3010 - Introduction to Linguistics **Credits: (3)**
- ENGL 3352 - Studies in World Literary Genres **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- ENGL 3730 - Literatures of Cultures and Places **Credits: (3)** / *Variable Title Course*
- ENGL 3752 - Topics and Ideas in World Literature and Language **Credits: (3)** / *Variable Title Course*
- ENGL 4712 - Eminent World Authors **Credits: (3)** / *Variable Title Course*
- ENGL 4750 - Classical Literature **Credits: (3)**
- ENGL 4760 - Irish Literature **Credits: (3)**

Area 3: Cultural and Media Studies

**Courses in this area will focus on topics related to the study of culture and media / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3353 - Genres in Cultural and Media Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3550 - Multicultural and Ethnic Literature in America **Credits: (3)**
- ENGL 3580 - Regional Literature in America **Credits: (3)** / *Variable Title Course*
- ENGL 3753 - Topics and Ideas in Cultural and Media Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3820 - History of Literary Criticism **Credits: (3)**

- ENGL 4713 - Eminent Authors in Cultural and Media Studies **Credits: (3)** / *Variable Title Course*

#### Area 4: Writing and Interdisciplinary Studies

**Courses in this area will focus on writing and/or the study of other disciplines as they connect with literature, language, or the craft of writing** / *Prerequisites as specified for individual courses in course catalog:*

- ENGL 3050 - Grammar, Style, and Usage for Advanced Writing **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**
- ENGL 3250 - CW: Advanced Fiction Writing **Credits: (3)**
- ENGL 3260 - CW: Poetry Writing **Credits: (3)**
- ENGL 3270 - Magazine Article Writing **Credits: (3)**
- ENGL 3280 - Biographical Writing **Credits: (3)**
- ENGL 3354 - Genres in Writing and Interdisciplinary Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3520 HU - Literature of the Natural World **Credits: (3)**
- ENGL 3530 - The Literature of Business and Economics **Credits: (3)**
- ENGL 3740 - The Literature of the Sacred **Credits: (3)** / *Variable Title Course*
- ENGL 3754 - Topics and Ideas in Writing and Interdisciplinary Studies **Credits: (3)** / *Variable Title Course*
- ENGL 3880 - Philosophy and Literature **Credits: (3)**

## Professional and Technical Writing Minor

- **Grade Requirements:** A grade point of 2.0 or better in all courses within the academic minor.
- **Credit Hour Requirements:** This minor consists of 18 credit hours of upper division technical writing courses.

### Course Requirements for Minor

Professional and Technical Writing Courses Required (18 credit hours)

- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3140 - Professional and Technical Editing **Credits: (3)**
- ENGL 3190 - Document Design **Credits: (3)**
- ENGL 4100 - Issues in Professional and Technical Writing **Credits: (3)**
- ENGL 4110 - Content Management **Credits: (3)**
- ENGL 4120 - Seminar and Practicum in Professional and Technical Writing **Credits: (3)**

# English Teaching Minor

- **Grade Requirements:** A grade of 2.0 or better in all courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 24 credit hours of English courses. ENGL 1010, ENGL 2010, and lower division HU general education literature courses do not count toward an English teaching minor.

*Students who select the English Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education in this catalog).*

## Methodology Block

English teaching minors must enroll in ENGL 3020, ENGL 3400, ENGL 3410, and ENGL 3420 concurrently following completion of their Teacher Education Level II course work and just prior to Teacher Education Level III (student teaching). As part of this 12-hour block of methods course work, students will be required to complete a ten-week public school field experience.

## Student Teaching

Student teaching takes place during Teacher Education Level III. Before student teaching, English teaching minors must have completed all required Education courses and at least 21 credit hours of the required English courses (listed below), including ENGL 3080 - Critical Approaches to Literature, and the Methodology Block. Students must apply for student teaching through Teacher Education according to deadlines set by that department.

## Course Requirements for Minor

### Required English Courses (24 credit hours)

Foundation - 3 credit hours

**Critical Approaches Course (to be taken early in the minor) / Prerequisite ENGL 2010:**

- ENGL 3080 - Critical Approaches to Literature **Credits: (3)**

Core - 6 credit hours

**1. American Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3610 - American Literature I **Credits: (3)**
- ENGL 3620 - American Literature II **Credits: (3)**

**2. British Literature Surveys: (one of the following) / Prerequisite ENGL 2010:**

- ENGL 3650 - British Literature I **Credits: (3)**
- ENGL 3660 - British Literature II **Credits: (3)**

Methodology Block - 12 credit hours

### Take all of the following:

- ENGL 3020 - Introduction to the Study of Language for Teachers **Credits: (3)**
- ENGL 3400 - The Teaching of Literature **Credits: (3)**
- ENGL 3410 - The Teaching of Writing **Credits: (3)**

- ENGL 3420 - Teaching With Young Adult Literature **Credits: (3)**

Areas of Specialization - 3 credit hours

Choose **one** course from the area listed below (3 credit hours):

Writing and Interdisciplinary Studies

**Courses in this area will focus on writing and/or the study of other disciplines as they connect with literature, language, or the craft of writing / Prerequisites as specified for individual courses in course catalog:**

- ENGL 3050 - Grammar, Style, and Usage for Advanced Writing **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**
- ENGL 3250 - CW: Advanced Fiction Writing **Credits: (3)**
- ENGL 3260 - CW: Poetry Writing **Credits: (3)**
- ENGL 3270 - Magazine Article Writing **Credits: (3)**
- ENGL 3280 - Biographical Writing **Credits: (3)**

## English Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Foreign Languages

**Department Chair:** Craig Bergeson

**Location:** Elizabeth Hall, Room 434

**Telephone Contact:** Jennifer Stevens, 801-626-6183

**Professors:** Craig Bergeson, Cheryl Hansen, Thomas Mathews, Eva Szalay; **Associate Professors:** Isabel Asensio, Diego Batista; **Assistant Professors:** Electra Fielding, Aubrey Jones Kubiak, Kacy Peckenpaugh, John Trimble;

**Instructors:** Tomono Adachi, Chantal Esquivias, Teh-yi (Dori) Huang

The Department of Foreign Languages promotes global awareness and intercultural understanding by providing instruction and study abroad opportunities in various languages. We prepare majors and minors to function effectively in a foreign language by offering courses in literature, culture, linguistics, pedagogy and language for professional purposes.

A bachelor of arts degree is offered. Students may select a regular major, a teaching major or a major with a commercial emphasis in French, German or Spanish. Regular and teaching minors are offered in these three languages as well. In addition, a Japanese minor is offered, and the department participates in Asian Studies, European Studies and Latin American Studies minors and in a departmental Honors Program. A language emphasis for the BIS degree requires a minimum of 18 hours, 15 of which must be upper-division course work. Courses in other languages may be offered as need and resources allow. The curriculum is based on the National Standards for measuring proficiency. Each course is designed to foster linguistic skills and to increase the student's ability to participate in the culture.

## **Foreign Language Requirement for the Bachelor of Arts Degree**

The Bachelor of Arts degree includes a foreign language or ASL (American Sign Language) requirement which may be met by one of the following:

1. Documentation of a proficiency level of "Intermediate Low" or better through an examination administered by the WSU Foreign Language Department or through an examination by a recognized testing agency.
2. Completion of WSU foreign language course FL 2020 with a grade of "C" or higher, or comparable transfer credit.
3. Completion of any upper-division WSU foreign language course with a grade of "C" or higher, or comparable transfer credit.
4. Students for whom English is a second language may meet the BA foreign language requirement by verifying their proficiency in their native (non-English) language in cooperation with the Foreign Language Department and verifying their proficiency in English as a Second language by passing the ESL Special Examination.
5. Documentation of a minimum proficiency level in American Sign Language through an examination administered by the American Sign Language/Interpreting program at Salt Lake Community College (SLCC). The signer must "produce and maintain American Sign Language with continuity and precision."
6. Completion of SLCC's American Sign Language Course ASL 1050 with a grade of "C" or higher, or comparable transfer credit.
7. Completion of twelve semester-hours of foreign language.

## **Obtaining Foreign Language Credit for Prior Language Experience**

Students with prior language experience may obtain lower-division foreign language credit by completing one of the following options:

1. Students may obtain credit for FL 1010, FL 1020, FL 2010 and FL 2020 by passing a higher numbered course with a minimum grade of "C"
2. Students may obtain credit for FL 1010, FL 1020, FL 2010 and FL 2021 through examination, but only in those languages in which the Department of Foreign Languages has expertise (usually limited to French, German, Japanese and Spanish). This examination is administered regularly by the department. Credit for Humanities General Education (FL 2020) cannot be obtained through examination.

Upon payment of a nominal fee, hours earned through either option are recorded as "credit" on the transcript and do not affect the student's GPA. The department may accept results from other foreign language testing agencies as evidence of proficiency. Application for credit is to be made at the office of the Department of Foreign Languages.

Generally, students may not earn lower-division foreign language credit for proficiency in their native language. If a student's second language is English, then English may fill the BA foreign language requirement (see specific BA-major department advisors).

## **Interdisciplinary Minors**

The Foreign Languages Department participates in the Asian Studies, European Studies, Linguistics, and Latin American Studies Minor Programs. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

## **Oral Proficiency Requirements**

The American Council on the Teaching of Foreign Languages (ACTFL) has defined a scale for the evaluation of the language proficiency of students. The ACTFL Proficiency scale has four levels: Novice, Intermediate, Advanced and Superior. The Department of Foreign Languages requires that students achieve a determined proficiency level, depending on the students' goals. In addition, instructors assume that students entering any class have acquired the entry-level proficiency indicated for that class. (These levels are indicated in parentheses by the description of each course. N=Novice; NH=Novice High; IL=Intermediate Low; IM=Intermediate Mid; IH=Intermediate High; AL=Advanced Low.)

## **Novice (N)**

Students at this level have no experience in the language they are studying. They begin by learning the sound and spelling system and by memorizing words and phrases. During the course, they will progress to the point of being able to create simple sentences, to ask some questions, and to initiate, sustain and conclude simple social tasks more than half of the time.

## **Novice High (NH)**

At the Novice-High level student's progress from the ability to respond simply with learned utterances to the ability to create language face-to-face, to ask and answer simple questions, and to create sentence-level constructions.

## **Intermediate Low (IL)**

At the Intermediate-Low level students continue to build mastery of personal social-oriented informational tasks and move to a higher level by practicing informational tasks beyond the immediate and personal. Students will move from simple-sentence to more complex sentence-level discourse. They will practice narration, description and comparison, but mastery is not expected.

## **Intermediate Mid (IM)**

Students at this level build on an ability to perform informational tasks beyond immediate and personal needs while they continue to practice narration, description and comparison. In addition, students begin practice in supporting opinions and hypothesizing in the language. They move from complex sentence-level structures to paragraph-level discourse.

## **Intermediate High (IH)**

At this level students can function at the Advanced level most of the time. They still need practice narrating, describing and comparing, and Linking sentences together smoothly. In addition, they encounter more tasks that require them to support opinion and to hypothesize. Student's progress from complex sentences to paragraphs to extended discourse.

## **Advanced Low (AL)**

Students at this level function at the Advanced level all or almost all of the time. Students have no difficulty with extended discourse, narration in all tenses and explanation. They are able to and use language both oral and written in complex and sophisticated ways.

*These course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: **FRCH** for French, **GRMN** for German, **JPNS** for Japanese, and **SPAN** for Spanish, etc.*

# **American Sign Language (ASL) (AA)**

An Associate of Arts with an American Sign Language (ASL) major will indicate that a student has completed all WSU AA degree requirements and the core curriculum required for the Bachelor of Arts in ASL. It will also indicate students are prepared to enroll in upper division ASL courses. The ending proficiency expectation is "Intermediate Low."

## **Advisement**

American Sign Language (ASL) majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree and General Education Requirements of this catalog for Associate of Arts requirements.

## Required ASL Courses

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**
- FL 2030 - Second Year Language Review **Credits: (3)**

## Chinese (AA)

An Associate of Arts with a Chinese major will indicate that a student has completed all WSU AA degree requirements and the core curriculum required for the Bachelor of Arts in Chinese. It will also indicate students are prepared to enroll in upper division Chinese courses. The ending proficiency expectation is "Intermediate Low."

## Advisement

Chinese majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree and General Education Requirements of this catalog for Associate of Arts requirements.

## Required Chinese Courses

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**
  
- FL 2030 - Second Year Language Review **Credits: (3)**  
**OR**
- FL 1852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 2851 HU - Study Abroad **Credits: (3)** or

- FL 2852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 3000 - Proficiency Development **Credits: (3)**

## French (AA)

An Associate of Arts with a French major will indicate that a student has completed all WSU AA degree requirements and the core curriculum required for the Bachelor of Arts in French. It will also indicate students are prepared to enroll in upper division French courses. The ending proficiency expectation is "Intermediate Low."

### Advisement

French majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

### General Education

Refer to Degree Requirements of this catalog for Associate of Arts requirements.

## Required French Courses

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**
  
- FL 2030 - Second Year Language Review **Credits: (3)**  
**OR**
- FL 1852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 2851 HU - Study Abroad **Credits: (3)** or
- FL 2852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 3000 - Proficiency Development **Credits: (3)**

## German (AA)

An Associate of Arts with a German major will indicate that a student has completed all WSU AA degree requirements and the core curriculum required for the Bachelor of Arts in German. It will also indicate students are prepared to enroll in upper division German courses. The ending proficiency expectation is "Intermediate Low."

### Advisement

German majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

### General Education

Refer to Degree and General Education Requirements of this catalog for Associate of Arts requirements.

## Required German Courses

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**
  
- FL 2030 - Second Year Language Review **Credits: (3)**  
**OR**
- FL 1852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 2851 HU - Study Abroad **Credits: (3)** or
- FL 2852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 3000 - Proficiency Development **Credits: (3)**

## Japanese (AA)

WSU currently offers a minor in Japanese. Adding an Associate of Arts with a Japanese major will indicate that a student has completed all WSU AA degree requirements in addition to the core curriculum in Japanese. The ending proficiency expectation is "Intermediate Low."

### Advisement

Japanese majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree and General Education Requirements of this catalog for Associate of Arts requirements.

## Required Japanese Courses

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**
  
- FL 2030 - Second Year Language Review **Credits: (3)**  
**OR**
- FL 1852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 2851 HU - Study Abroad **Credits: (3)** or
- FL 2852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 3000 - Proficiency Development **Credits: (3)**

## Spanish (AA)

An Associate of Arts with a Spanish major will indicate that a student has completed all WSU AA degree requirements and the core curriculum required for the Bachelor of Arts in Spanish. It will also indicate students are prepared to enroll in upper division Spanish courses. The ending proficiency expectation is "Intermediate Low."

### Advisement

Spanish majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

### Admissions

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree and General Education Requirements of this catalog for Associate of Arts requirements.

## Required Spanish Courses

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

- FL 2030 - Second Year Language Review **Credits: (3)**  
**OR**
- FL 1852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 2851 HU - Study Abroad **Credits: (3)** or
- FL 2852 - Study Abroad **Credits: (1-3)**  
**OR**
- FL 3000 - Proficiency Development **Credits: (3)**

## Spanish Certificate of Proficiency

### Core Courses

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

### Elective Courses

12 credit hours in Spanish at the 3000 level or higher.

## French (BA)

- **Program Prerequisite:** Completion of first and second-year courses in French or equivalent preparation.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 30.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

### Advisement

French majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division French course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all French majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

### Literature Requirement (3 credit hours)

*Select one course (a minimum of 3 credit hours) from the following*

- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**

## Elective Courses

Select a minimum of 21 credit hours from the following

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3750 - Introduction to Interpreting **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a French major if course assignments are completed in French. Speak with the instructor before registering for this class.*

# French Teaching (BA)

- **Program Prerequisite:** Completion of first and second-year courses in French or equivalent preparation. In addition, teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 hours is required for graduation; 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 36.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

## Advisement

French Teaching majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment. Teaching majors are also encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division French course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all French Teaching majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**

- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (15.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**
- FL 4400 - Methods for Teaching Languages **Credits: (3) \***
- FL 4990 - Senior Assessment **Credits: (.5)**

### Literature Requirement (3 credit hours)

*Select one course (a minimum of 3 credit hours) from the following*

- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**

### Elective Courses

*Select a minimum of 18 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**

- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*Students must take an ACTFL Oral Proficiency Examination prior to taking FL 4400 and student teaching. The department standard for Proficiency is the Advanced-Low level. Students must also complete the Praxis II Content Knowledge Exam in their language prior to taking FL 4400. (Please see the foreign language advisor.)*

## French, Commercial Emphasis (BA)

- **Program Prerequisite:** Completion of first and second-year courses in French or equivalent preparation.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation -- 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 30.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

### Advisement

French majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626- 6183 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

### General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division French course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all French majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (12.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

Select 3 credit hours from the following

- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**

### Elective Courses

*Select a minimum of 15 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**

- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a French major if course assignments are completed in French. Speak with the instructor before registering for this class.*

## German (BA)

- **Program Prerequisite:** Completion of first and second-year courses in German or equivalent preparation.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 30.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

### Advisement

German majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division German course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all German majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

### Literature Requirement (3 credit hours)

*Select one course (a minimum of 3 credit hours) from the following*

- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**

- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**

## Elective Courses

*Select a minimum of 21 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3750 - Introduction to Interpreting **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a German major if course assignments are completed in German. Speak with the instructor before registering for this class.*

# German Teaching (BA)

- **Program Prerequisite:** Completion of first and second-year courses in German or equivalent preparation. In addition, teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 hours is required for graduation; 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 36.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

## Advisement

German Teaching majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment. Teaching majors are also encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division German course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all German Teaching majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**

- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (15.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**
- FL 4400 - Methods for Teaching Languages **Credits: (3) \***
- FL 4990 - Senior Assessment **Credits: (.5)**

### Literature Requirement (3 credit hours)

*Select one course (a minimum of 3 credit hours) from the following*

- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**

### Elective Courses

*Select a minimum of 18 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**

- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*Students must take an ACTFL Oral Proficiency Examination prior to taking FL 4400 and student teaching. The department standard for Proficiency is the Advanced-Low level. Students must also complete the Praxis II Content Knowledge Exam in their language prior to taking FL 4400. (Please see the foreign language advisor.)*

## German, Commercial Emphasis (BA)

- **Program Prerequisite:** Completion of first and second-year courses in German or equivalent preparation.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation -- 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 30.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

### Advisement

German majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

### General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division German course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all German majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (12.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

Select 3 credit hours from the following

- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**

### Elective Courses

*Select a minimum of 15 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**

- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a German major if course assignments are completed in German. Speak with the instructor before registering for this class.*

## Spanish (BA)

- **Program Prerequisite:** Completion of first and second-year courses in Spanish or equivalent preparation.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 30.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

### Advisement

Spanish majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

## General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division Spanish course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all Spanish majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

### Literature Requirement (3 credit hours)

*Select one course (a minimum of 3 credit hours) from the following*

- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**

- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**

## Elective Courses

*Select a minimum of 21 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3540 - Latin American Environment and Cultures **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3750 - Introduction to Interpreting **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a Spanish major if course assignments are completed in Spanish. Speak with the instructor before registering for this class.*

# Spanish Teaching (BA)

- **Program Prerequisite:** Completion of first and second-year courses in Spanish or equivalent preparation. In addition, teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 hours is required for graduation; 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 36.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

## Advisement

Spanish Teaching majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment. Teaching majors are also encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division Spanish course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

## Assessment

During their senior year, all Spanish Teaching majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**

- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (15.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**
- FL 4400 - Methods for Teaching Languages **Credits: (3) \***
- FL 4990 - Senior Assessment **Credits: (.5)**

### Literature Requirement (3 credit hours)

*Select one course (a minimum of 3 credit hours) from the following*

- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**

### Elective Courses

*Select a minimum of 18 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3540 - Latin American Environment and Cultures **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**

- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*Students must take an ACTFL Oral Proficiency Examination prior to taking FL 4400 and student teaching. The department standard for Proficiency is the Advanced-Low level. Students must also complete the Praxis II Content Knowledge Exam in their language prior to taking FL 4400. (Please see the foreign language advisor.)*

## Spanish, Commercial Emphasis (BA)

- **Program Prerequisite:** Completion of first and second-year courses in Spanish or equivalent preparation.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses used for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation -- 40 hours of these must be upper division (courses numbered 3000 and above). For the major, a minimum of 30.5 upper division hours is required beyond the prerequisite lower division courses (prerequisite courses, if needed, total 12 credit hours). At least 6 credit hours of major courses must be completed at WSU.

### Advisement

Spanish majors are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6183 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for this major.

### General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. FL 2020 will fulfill the 3 credit hours for the Humanities General Education requirement. A student who completes an upper-division Spanish course with a "C" or better will also meet this requirement. Credit for Humanities General Education (HU2020) cannot be obtained through examination. The prerequisite courses listed under the major requirements will also fulfill the BA Language requirement.

### Assessment

During their senior year, all Spanish majors will complete FL 4990 in order to help the department assess how well it has met its goals. Students are encouraged to keep copies of their best work from each course taken in the major. These samples will be used in FL 4990.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Major Course Requirements for BA Degree

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (12.5 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 4990 - Senior Assessment **Credits: (.5)**

Select 3 credit hours from the following

- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**

### Elective Courses

*Select a minimum of 15 credit hours from the following*

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3540 - Latin American Environment and Cultures **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**

- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a Spanish major if course assignments are completed in Spanish. Speak with the instructor before registering for this class.*

## French Minor

- **Prerequisite Courses:** Completion of first and second-year courses in French or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in French. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**

- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**

### Elective Courses (select a minimum of 9 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a French minor if course assignments are completed in French. Speak with the instructor before registering for this class.*

# French, Commercial Emphasis Minor

- **Program Prerequisite:** Completion of first and second-year courses in French or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in French. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours  
(or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (12 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**

### Elective Courses

*Select 3 credit hours from the following*

- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**

# German Minor

- **Prerequisite Courses:** Completion of first and second-year courses in German or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in German. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**

### Elective Courses (select a minimum of 9 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**

- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 - Applied Language Studies (variable title course) when taken as Language & Culture of Europe will only count towards a German minor if course assignments are completed in German. Speak with the instructor before registering for this class.*

## German, Commercial Emphasis Minor

- **Program Prerequisite:** Completion of first and second-year courses in German or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in German. At least 3 credit hours of minor courses must be completed at WSU.

### FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

### Course Requirements for Minor

#### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

## Required Courses (9 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**

## Elective Courses

*Select 6 credit hours from the following*

- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**

## Japanese Minor

- **Prerequisite Courses:** Completion of first and second-year courses in Japanese or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in Japanese. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**

## Elective Courses (select a minimum of 9 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

## Spanish Minor

- **Prerequisite Courses:** Completion of first and second-year courses in Spanish or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in Spanish. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (6 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**

### Elective Courses (select a minimum of 9 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 3270 - Special Topics in Linguistics **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3320 - Language & Culture of Europe **(3) \***
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3540 - Latin American Environment and Cultures **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**

- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*FL 3320 (Applied Language Studies variable title course) when taken as Language & Culture of Europe will only count towards a Spanish minor if course assignments are completed in Spanish. Speak with the instructor before registering for this class.*

## Spanish, Commercial Emphasis Minor

- **Program Prerequisite:** Completion of first and second-year courses in Spanish or equivalent preparation.
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 15 upper division hours in Spanish. At least 3 credit hours of minor courses must be completed at WSU.

### FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

### Course Requirements for Minor

#### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

#### Required Courses (12 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**

#### Elective Courses (select a minimum of 6 credit hours)

- FL 3540 - Latin American Environment and Cultures **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**

# French Teaching Minor

- **Program Prerequisite:** Completion of first and second-year courses in French or equivalent preparation. Must satisfy the Education Licensure Program (see the Department of Teacher Education).
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 21 upper division hours in French. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (15 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**
- FL 4400 - Methods for Teaching Languages **Credits: (3)** \*

Note:

*\*Students must take an ACTFL Oral Proficiency Examination prior to taking FL 4400 and student teaching. The department standard for Proficiency is the Advanced-Low level. Students must also complete the Praxis II Content Knowledge Exam in their language prior to taking FL 4400. (Please see the foreign language advisor.)*

### Elective Courses (select a minimum of 6 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**

- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

## German Teaching Minor

- **Program Prerequisite:** Completion of first and second-year courses in German or equivalent preparation. Must satisfy the Education Licensure Program (see the Department of Teacher Education).
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 21 upper division hours in German. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**

- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (15 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**
- FL 4400 - Methods for Teaching Languages **Credits: (3)** \*

### Elective Courses (select a minimum of 6 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**
- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

### Note:

*\*Students must take an ACTFL Oral Proficiency Examination prior to taking FL 4400 and student teaching. The department standard for Proficiency is the Advanced-Low level. Students must also complete the Praxis II Content Knowledge Exam in their language prior to taking FL 4400. (Please see the foreign language advisor.)*

# Spanish Teaching Minor

- **Program Prerequisite:** Completion of first and second-year courses in Spanish or equivalent preparation. Must satisfy the Education Licensure Program (see the Department of Teacher Education).
- **Grade Requirements:** A grade of "C" or better in courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 21 upper division hours in Spanish. At least 3 credit hours of minor courses must be completed at WSU.

## FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

## Course Requirements for Minor

### Prerequisite Courses

*Complete the following 12 credit hours (or demonstrate equivalent proficiency)*

- FL 1010 - First Semester **Credits: (3)**
- FL 1020 - Second Semester **Credits: (3)**
- FL 2010 - Third Semester **Credits: (3)**
- FL 2020 HU - Fourth Semester **Credits: (3)**

### Required Courses (15 credit hours)

- FL 3060 - Grammar & Composition **Credits: (3)**
- FL 3160 - Introduction to Literature **Credits: (3)**
- FL 3220 - Phonetics and Phonology **Credits: (3)**
- FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**
- FL 4400 - Methods for Teaching Languages **Credits: (3)** \*

### Elective Courses (select a minimum of 6 credit hours)

- FL 3000 - Proficiency Development **Credits: (3)**
- FL 3320 - Applied Language Studies **Credits: (1-3)**
- FL 3360 - Advanced Grammar **Credits: (3)**
- FL 3540 - Latin American Environment and Cultures **Credits: (3)**
- FL 3550 - Cultural Heritage I **Credits: (3)**
- FL 3560 - Cultural Heritage II **Credits: (3)**
- FL 3570 - Special Topics in Culture **Credits: (3)**
- FL 3610 - Literature Survey I **Credits: (3)**
- FL 3620 - Literature Survey II **Credits: (3)**
- FL 3630 - Literature Poetry **Credits: (3)**
- FL 3631 - Literature: Prose **Credits: (3)**
- FL 3632 - Literature: Drama **Credits: (3)**
- FL 3650 - Literature Periods **Credits: (3)**
- FL 3670 - Literature Authors **Credits: (3)**

- FL 3680 - Literature: Film **Credits: (3)**
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**
- FL 3710 - Business Language I **Credits: (3)**
- FL 3715 - Business Language II **Credits: (3)**
- FL 3720 - Language for Specific Purposes I **Credits: (3)**
- FL 3730 - Language for Specific Purposes II **Credits: (3)**
- FL 3740 - Translation I **Credits: (3)**
- FL 3850 - Study Abroad **Credits: (1-6)**
- FL 4190 - Foreign Language Journal **Credits: (1)**
- FL 4620 - Survey of Literature I **Credits: (3)**
- FL 4630 - Survey of Literature II **Credits: (3)**
- FL 4690 - Special Topics in Literature **Credits: (3)**
- FL 4740 - Translation II **Credits: (3)**
- FL 4830 - Directed Readings **Credits: (1-3)**
- FL 4850 - Study Abroad **Credits: (1-6)**
- FL 4860 - Foreign Language Internship **Credits: (1-3)**
- FL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- FL 4960 - Senior Project **Credits: (1-3)**

Note:

*\*Students must take an ACTFL Oral Proficiency Examination prior to taking FL 4400 and student teaching. The department standard for Proficiency is the Advanced-Low level. Students must also complete the Praxis II Content Knowledge Exam in their language prior to taking FL 4400. (Please see the foreign language advisor.)*

## Foreign Language Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Performing Arts

**Chair:** Dr. Thomas Priest

**Location:** BC 331

**Telephone Contact:** Patty Coan 801-626-6437

**Professors:** Karen Bruestle, Tracy Callahan, David Feller, Mark Henderson, Joanne Lawrence, Thomas Priest, Amanda Sowerby, Erik Stern, Shi-Hwa Wang, Yu-Jane Yang, Catherine Zublin; **Associate Professors:** Ralph van der Beek, Carey Campbell, Francisco de Galvez, Jennifer Kokai, Viktor Uzur; **Assistant Professors:** Tamara Goldbogen, Jessica Greenberg, Daniel Jonas, Shannon Roberts, Samantha Transleau; **Visiting Assistant Professors:** Kenneth Plain;

**Instructor:** Shijun Wang

The Department of Performing Arts at Weber State is based on five primary purposes: 1) to develop aesthetically aware and artistically discriminating citizens; 2) to provide opportunities for all students to participate in creative, artistic experiences and to encourage community members to participate in the performing arts; 3) to develop artistic competence and sensitivity; 4) to provide for career development in the arts through the preparation of teachers, performing artists, scholars, and technical specialists; and 5) to expose students and community to classic and contemporary works in all genres of the performing arts and to continue to provide the finest possible performances in the arts.

The department's degree programs prepare students for professional careers in teaching and performance as well as in technical specialties while providing the liberal arts background necessary for graduate study. In the department's Performing Arts Series, students and faculty participate in professionally produced dance, musical, and theatrical events.

## **Dance Area**

The primary goals of the Dance area of the Department of Performing Arts are: 1) To develop aesthetically aware and artistically discriminating citizens; 2) To promote cultural understanding of ourselves and others through the study of dance; 3) To encourage appreciation of dance through critical thinking; 4) To engage the community in a range of dance experiences; 5) To foster an understanding of and engagement in the creative process through dance performance, improvisation, choreography, pedagogical studies, technology, and collaborative endeavors; 6) To provide the guidance, class work, and experience necessary to prepare teachers, performing artists, and scholars; 7) To prepare students for careers or advanced study that require creativity, collaboration, and an understanding of the human experience as explored in the study of dance; 8) To provide rigorous dance training.

Two majors are offered: 1) a Bachelor of Arts in Dance, with a focus on creativity in performance and choreography; and 2) a Bachelor of Arts or Bachelor of Science in Dance Education, with a focus on education and pedagogy. Dance majors follow a program based on growth beginning with foundational theory courses, technique courses appropriate to each dancer's ability, and a culminating senior project.

Dance Education majors follow a program based in the knowledge and understanding of dance education in relation to secondary education and/or studio teaching, focusing on pedagogy, choreography, history, and performance. The Dance Education major prepares students to be teachers of dance in the public sector, private sector, and non-profit environments. In addition, Education majors seeking secondary certification must satisfy all requirements for the Licensure Program as outlined by the Jerry and Vickie Moyes College of Education (including a minimum GPA of 3.0 for admission to the Education Program).

Two minors are offered: 1) Dance, with a focus on performance and choreography; and 2) Dance Teaching. Dance minors follow a program that provides for study in technique, creative and theoretical coursework. A minimum of eighteen (18) credit hours (GPA of 2.25 or better) must be completed in the Dance Area courses.

Dance Teaching minors must complete a minimum of eighteen (17-18) credit hours (GPA of 2.25 or better) from the Dance Area courses. This program is comprised of a dance teaching core (7-8 hours), dance history, technique in ballet and modern dance, additional dance forms and creative work. In addition, teaching minors seeking secondary certification must satisfy all requirements for the Licensure Program as outlined by the Jerry and Vickie Moyes College of Education (including a minimum GPA of 3.0 for admission to the Education Program). Dance teaching minors are strongly encouraged to select teaching majors in subject areas that are needed in Utah secondary schools.

## **Performance Opportunities**

Orchesis Dance Theatre provides performance and production opportunities for qualified students who demonstrate technical abilities in dance. The company's activities include on-campus and dance festival concerts. Its repertoire consists of traditional and experimental modern dances, contemporary ballets, and theatrical and performance works choreographed/directed by dance faculty, students, and well-known artists. Auditions are required for performances sponsored by Orchesis. WSU Moving Company is the Dance Area's outreach program, which provides further performance, production and teaching opportunities. Significant dance works and lecture demonstrations are performed; teaching residencies are implemented in the public schools and for campus and community organizations.

## **School of Music**

The School of Music is an accredited member of the National Association of Schools of Music. Programs leading to the Bachelor of Music degree are offered for students seeking emphases in performance, keyboard pedagogy, stringed instrument pedagogy, vocal pedagogy, or music education. Additional programs include the Bachelor of Arts in music and a music minor.

The primary goals of the School of Music are: 1) To develop individuals who are aware, artistically discriminating, and devoted to a lifelong association with music; 2) To provide opportunities for students and community members to

participate in creative musical experiences; 3) To develop musical competence, sensitivity, and purpose; 4) To expose students and community to classic and contemporary musical works, and to provide the finest possible performances; 5) To provide for career development in music through the preparation of teachers, performers, and scholars.

## **Policies and Procedures**

The following policies are subject to change. For current information, see the latest Performing Arts | School of Music student handbook and make an appointment with a music area advisor.

### Freshman Registration and the Music Core

All freshman music majors and minors entering WSU as full-time students must register for the 9 hour music core as follows: MUSC 1006, MUSC 1110, MUSC 1130, MUSC 1150, MUSC 1901, major private lessons, master class, and major ensemble. Piano Pedagogy and Piano Performance majors do not register for MUSC 1150.

### General Policies and Performance Requirements

1. All entering music majors and minors, including transfer students, must audition with the respective program faculty for admittance to that program.
2. All music majors and minors at Weber State University must study privately each semester with a WSU faculty member or an approved adjunct faculty member.
3. All music majors pursuing the performance, keyboard pedagogy, stringed instrument pedagogy, or vocal pedagogy emphasis will study privately in their major area for a minimum of 6 semesters. All music majors pursuing one of these emphases will enroll in one of the major performing ensembles (concert choir, symphonic band, symphony orchestra, guitar ensemble, keyboard ensemble--as appropriate to the student's major performance area) for a minimum of 8 credit hours.
4. Music education majors (instrumental or choral emphasis) will study privately in their major area for a minimum of 7 semesters. Music education majors will enroll in one of the major performing ensembles (concert choir, symphonic band, symphony orchestra, guitar ensemble--as appropriate to the student's major area) for a minimum of 7 credit hours; music education majors are exempted from performance group participation during the semester of student teaching.
5. All music majors must participate in their major area performing group during each semester of school enrollment, except as noted in "D" above.
6. All music majors are expected to complete the four levels of competency in their major performance area of study prior to graduation.
7. All music minors will study privately until advancement to the 3000 level of proficiency is achieved, with a minimum of four semesters of study.
8. All music minors must participate in their concentration area major performing ensemble each semester until the minor is completed, with a minimum of two semesters of enrollment in the ensemble.
9. A \$445 Applied Music Fee is charged to music majors and minors for one credit hour instrumental or vocal lessons. These lessons are 45 minutes in length and require attendance at a weekly master class. The fee for two credit hours lessons is \$890. This is for two 45 minute lessons each week plus master class attendance and a research paper or project.
10. A \$320 Applied Music Fee is charged to students registering as non-music majors or minors. These lessons are 30 minutes in length and may not be used as credit for music majors or minors in their primary performance area. A limited number of slots are available for students registering in this category.
11. All music education, vocal, keyboard and string pedagogy majors should consult the latest student handbook, and with their major advisors, for specific internship requirements.

### Schedule for Performance Evaluations

1. Performance evaluations will be regularly conducted and scheduled:
  1. At the end of Fall and Spring semesters.
  2. By special request for evaluation during the year upon agreement of the student, the teacher and the committee. All special requests must be scheduled through the area head.

2. All music majors and minors must take performance evaluations each semester. Performance evaluations are required until completion of the student's final recital as stipulated by the degree program.
3. Students completing a junior recital are excused from that performance area's performance evaluation the semester in which the recital is completed.

#### Procedures for Performance Evaluation

1. All incoming music majors and minors and all transfer students and current students who change their major or minor to music subsequent to their initial enrollment at Weber State University will enroll at the 1000 level of private instruction.
2. A student may be placed in a higher competency level at the completion of any evaluation.
3. A student will not be permitted to progress to the 3000 level until the piano proficiency examination is passed.
4. Student admittance to each competency level is granted only by general consent of the area faculty upon satisfactory completion of a performance level evaluation appropriate to that level.
5. Refusal by the appropriate area faculty to allow admittance to the next level may be appealed by the student provided there is consent of the private teacher.
  1. This appeal should be made directly to the area head, who will in turn consult with the faculty regarding a repeat performance evaluation.
  2. Only one appeal will be accepted at each performance evaluation.
6. More than three (3) semesters of study at any one competency level due to lack of improvement on the part of the student will be cause for a recommendation from the appropriate faculty that the student not continue as a music major or minor.
7. Failure to attend proficiency evaluations will result in a grade of "E" being given for the private lesson during that semester.

#### Recital Performance

1. All Bachelor of Music and Bachelor of Music Education students must participate in at least one general student recital or master class per semester. This should normally be a solo appearance, but this determination is left to the discretion of the applied music teacher.
2. All music majors except those in the Bachelor of Arts and keyboard pedagogy programs, must present a half-hour formal junior recital upon reaching the 3000 competency level. All music minors must present a half-hour formal junior recital upon reaching the 3000 competency level. The student must register for MUSC 3991 during the semester the recital will be presented.
3. All Bachelor of Music students must present a one-hour senior recital while at the 4000 competency level. The student must register for MUSC 4991 during the semester the recital will be presented. See "Senior Project" in the next column for music education exceptions to this requirement.
4. Repertoire for the senior recital must not contain music performed on the junior recital.
5. Completion of a senior recital will exempt a student from further proficiency level evaluations but not from continued private study.
6. All students presenting a senior recital must perform that recital before a faculty review committee not less than two weeks prior to the recital date. The review committee will consist of the student's applied teacher, the appropriate area head, and one other faculty member of the student's choice.
7. A faculty committee selected by the area director will be present at the public performance of the senior recital and will recommend pass/fail of the recital.
8. All students must complete a recital approval form for junior or senior recitals. The recital form must be completed and signed by the music advisor and applied teacher prior to scheduling any required faculty preview performance.
9. Failure to complete a junior or senior recital in the semester in which the student is registered for the recital will result in a grade of "E" for the recital.

#### Senior Project

1. Music education majors have the option of completing a senior project in lieu of the senior recital and should register for MUSC 4992 during the semester in which they plan to complete the project.
2. The Director of Music Education in consultation with the music faculty must approve the senior project option at least one semester prior to the completion of the project. Students must enroll in MUSC 4830 at least one

semester prior to completing the senior project. A written proposal must be approved and signed by a faculty committee before the student may enroll in MUSC 4992.

3. The committee must be comprised of at least three members including the following:
  1. The Director of Music Education or his or her designee
  2. An appropriate Music Area Head or his or her designee
  3. A Weber State Faculty Member

Appropriate outside members that are not members of the WSU faculty may be selected with the approval of the music faculty.

4. Upon receiving approval of the project, the student should proceed with the project in close consultation with the committee.
5. Upon completion of the project, the faculty committee shall meet and provide useful information to the student. Each member of the committee will assign a letter grade. These grades will be averaged for the final grade in MUSC 4992 (Senior Project).

### **Recital/Concert Attendance**

All music majors and minors must attend 24 music area recitals, concerts, and/or community concert events per year while enrolled in applied music at the 1000 and 2000 level. Attendance reports are required for two years and are maintained in the music office. To receive credit for graduation, students enroll in MUSC 1006 for their first two semesters attending 12 recitals or concerts each semester and MUSC 2006 for their third and fourth semesters attending 12 recital or concerts each semester.

### **Piano Proficiency**

All students must pass the piano proficiency examination and must be registered for Class Piano or private piano until the exam is passed. The requirements for piano proficiency should be completed by the end of the student's sophomore year.

### **Music Major Foreign Language Requirement**

The Bachelor of Music and Bachelor of Music Education degree requirement is for two semesters of foreign language chosen from French, German, Italian, and Spanish. The requirement may be satisfied by taking two semesters of the same language, or one semester each of two different languages.

For the Bachelor of Arts in Music, please see Language Courses Required to fulfill the BA listed under the major requirements.

### **Bachelor of Integrated Studies**

Students declaring an emphasis in music as one of their three BIS concentrations must abide by all guidelines and stipulations detailed in the BIS student handbook.

Courses taken in fulfillment of the music area emphasis must total a minimum of 18 credit hours and will be determined in consultation with the music BIS advisor and approved by the department chair (or dean, if the advisor and chair are the same person). These courses should directly and demonstratively contribute to the goals set forth by the student in his/her approved BIS application.

The following courses, however, are required for all music BIS students:

- MUSC 1010 CA - Introduction to Music **(3)** \*
- MUSC 1110 - Music Theory I **(3)**
- MUSC 1130 - Sight-Singing & Aural Skills I **(1)**
- MUSC 1120 - Music Theory II **(3)**
- MUSC 1140 - Sight-Singing & Aural Skills II **(1)**

Additionally, music BIS students must take at least one of the following:

MUSC 1030 CA - Introduction to Jazz **(3)** \*

MUSC 1033 CA - Introduction to American Music **(3)** \*

MUSC 1035 CA - History of Rock and Roll **(3)** \*

MUSC 1040 CA/DV - Music of World Cultures **(3)** \*

MUSC 1043 HU - Music, the Arts & Civilizations **(3)** \*

MUSC 1063 CA - Music in Religion **(3)** \*

THEA 1043 CA - Introduction to American Musical Theatre **(3)** \*

*\* Please note that according to the BIS student handbook, courses taken in completion of the university General Education requirements will not count toward a BIS emphasis. In other words, "double-dipping" is not allowed.*

### **School of Music Advisors**

Advisors for Bachelor of Music in Performance & Pedagogy degrees are:

Keyboard Area:	Dr. Yu-Jane Yang	yyang@weber.edu
	Dr. Ralph Van der Beek	ralphvanderbeek@weber.edu
String Area:	Dr. Shi-Hwa Wang	swang@weber.edu
Vocal Area:	Dr. Karen Bruestle	kbrookens@weber.edu
Winds and Percussion Area:	Dr. Shannon Roberts	shannonroberts@weber.edu

Advisor for the Bachelor of Integrated Studies degree is:

Dr. Carey Campbell      careycampbell@weber.edu

Advisor for the Bachelor of Arts degree is:

Dr. Carey Campbell      careycampbell@weber.edu

Advisors for the Bachelor of Music Education degree are:

Choral Area:	Dr. Mark Henderson	mhenderson@weber.edu
Winds & Percussion Area:	Dr. Thomas Priest	tpriest@weber.edu
String Area:	Dr. Francisco De Galvez	fgalvez@weber.edu
Keyboard Area:	Dr. Thomas Priest	tpriest@weber.edu

Advisor for the Music Minor is:

Dr. Viktor Uzur      viktoruzur@weber.edu

## Music Core

### Core Courses Required for All Majors (30 credit hours)

- MUSC 1006 - Concert Attendance I **Credits: (0)**
- MUSC 2006 - Concert Attendance II **Credits: (0)**
- MUSC 1110 - Music Theory I **Credits: (3)**
- MUSC 1120 - Music Theory II **Credits: (3)**
- MUSC 1130 - Sight-Singing & Aural Skills I **Credits: (1)**
- MUSC 1140 - Sight-Singing & Aural Skills II **Credits: (1)**
- MUSC 1901 - Music: The First-Year Experience **Credits: (1)**
- MUSC 1911 - Introduction to Music Technology **Credits: (1)**
- MUSC 2110 - Music Theory III **Credits: (3)**
- MUSC 2120 - Music Theory IV **Credits: (3)**
- MUSC 2130 - Sight Singing & Aural Skills III **Credits: (1)**
- MUSC 2140 - Sight Singing & Aural Skills IV **Credits: (1)**
- MUSC 3205 - Music History I: Medieval, Renaissance, and Baroque Music **Credits: (2)**
- MUSC 3206 - Music History II: Classical and Romantic Music **Credits: (3)**
- MUSC 3207 - Music History III: Music of the 20th century to the present **Credits: (3)**
- MUSC 3208 - World Music **Credits: (2)**
- MUSC 3840 - Form and Analysis **Credits: (2)**

## Theatre Arts Area

The Theatre Arts area of the Department of Performing Arts provides scholarly, creative, collaborative and practical theatre experience for students.

The objectives of the program are to: 1) Encourage participation in and appreciation of theatre and drama; 2) Foster creativity and develop technical skills in acting, directing, costuming, scenic design, script writing and theatre management; 3) Prepare students for careers or professional schooling in those fields that require strong presentational skills, creative problem solving, effective collaboration, and an understanding of human experience.

Theatre students must complete a sequence of formal course work that includes University general education, core theatre courses, and focus or specialty courses. Formal course work is complemented by a sequence of experiential learning opportunities in the theatre. Students and faculty develop individualized programs of course work and practical experience, including a junior seminar, annual juries, portfolio preparation, various practica, and opportunities for individual theatre projects.

Study of theatre provides students with useful tools to contribute to and make positive changes in society. Theatre students learn about diverse historical eras, communities and technologies. Theatre challenges students to be creative and to translate that creativity into applied processes - to think precisely, speak confidently in public, work productively with others, visualize abstract concepts and represent those concepts concretely. Theatre skills are useful in a variety of professions including, but not limited to, business, government, law, journalism, and public relations.

### Major Requirements

The department offers a Bachelor of Arts (BA) degree in Musical Theatre, Theatre Arts, and Theatre Arts Teaching. A minimum of 62 course units (2.0 or better GPA) or courses in the combined areas of Dance, Music, and Theatre are required to qualify for the Musical Theatre Major. A minimum of 45 course units (2.0 or better) of Theatre Arts courses must be completed to qualify for either the Theatre Arts or Theatre Arts Teaching programs.

Teaching majors must also satisfy all requirements for the Licensure Program as outlined by the Department of Teacher Education.

A \$350 Applied Music Fee is charged to Theatre Arts Area majors and minors enrolled in Individual Training in Stage Voice (THEA 4651). These lessons are 45 minutes in length. A limited number of slots are available for students registering for these lessons.

### **Performance Opportunities**

Involvement in theatre productions is an important part of the Theatre program. The Weber State Theatre produces a full season of plays in the Austad, Allred and Eccles theatres of the state-of-the-art Val A. Browning Center for the Performing Arts. Theatre facilities include a variety of proscenium and flexible staging situations. Students are given first priority in all department productions.

The theatre season is offered by the Department of Performing Arts as part of the Performing Arts Series. Because the season is generously supported by the Associated Students of Weber State through student fees, students receive substantial discounts for performances.

In addition to performance opportunities at Weber State, theatre majors are encouraged to seek summer employment in stock or repertory companies relating to their interests.

Performing Arts Course Descriptions

## **Dance (BA)**

*The BA degree in Dance provides an awareness of the possibilities of dance in all of its manifestations and rigorously prepares students in performance, choreography, community outreach and involvement, education, technology, social and cultural roles, and research/scholarly endeavors. The degree prepares enthusiastic and energetic graduates who will use their passion about the art form to guide their career and advanced study choices.*

- **Language Requirement:** Option 1 or 2
- **Minor:** Not Required
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) and an overall GPA of 2.50 or "C+." In addition, a grade of "B" or higher is required in at least one 3000-level major course in both ballet and modern dance.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation-a minimum of 60 of these must be Dance classes. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

### **Advisement**

Students should meet annually, if not more often, with the faculty advisor for course and program advisement. Email [jlawrence@weber.edu](mailto:jlawrence@weber.edu) for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information). There are no special admission requirements for this major.

## General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements. DANC 1010 CA/DV and NUTR 1020 LS are prerequisites for required dance courses.

## Course Requirements for BA Degree: 63 Credit Hours

### Technique Courses Required (20-22 credit hours)

*Appropriate level technique courses in ballet and modern dance (initially to be determined by placement class) are required every semester of residence-8 courses in Ballet and 8 courses in Modern Dance (20 to 22 credit hours).*

- DANC 1100 - Ballet I **Credits: (1)**
- DANC 1200 - Modern I **Credits: (1)**
- DANC 2470 - Ballet II **Credits: (1.5)**
- DANC 2490 - Modern II **Credits: (1.5)**
- DANC 3470 - Ballet III **Credits: (1.5)**
- DANC 3490 - Modern III **Credits: (1.5)**

### Additional Dance Form Required

*Select four of the following - none of these classes may be repeated for credit towards a Dance Major: (4 credit hours).*

- DANC 1450 - Special Topic Dance Form **Credits: (1)** variable topic
- DANC 1500 - Jazz I **Credits: (1)**
- DANC 1520 - Folk & Ethnic Dance **Credits: (1)**
- DANC 1580 - Rhythm Tap **Credits: (1)**
- DANC 2500 - Jazz II **Credits: (1)**
- DANC 3440 - Dance for Musical Theatre **Credits: (1)**
- DANC 3450 - Special Topic Dance Form **Credits: (1)** variable topic
- DANC 3580 - Rhythm Tap **Credits: (1)**

### Creative Sequence, Required (12 credit hours)

*Note: The following 5 courses must be taken in sequence.*

- DANC 2410 - Improvisation **Credits: (2)**
- DANC 3500 - Choreography I: Space & Time/Design in Dance **Credits: (3)**
- DANC 3510 - Choreography II: Process **Credits: (3)**
- DANC 3520 - Choreography Practicum **Credits: (2)**
- DANC 4700 - Creative Synthesis in Dance **Credits: (2)**

### Required Dance Courses (20 credit hours)

- DANC 1310 - Music for Dance **Credits: (2)**
- DANC 2250 - Alignment and Conditioning for Dance/Pilates **Credits: (1)**
- DANC 2300 - Dance Kinesiology **Credits: (3)**
- DANC 3010 - Dance History I **Credits: (3)**
- DANC 3020 - Dance History II: 20th Century Art and Education **Credits: (3)**
- DANC 3910 - Moving Company: Rehearsal & Development **Credits: (2)** CEL

- DANC 3911 - Moving Company: Performance **Credits: (2)** CEL
- DANC 4910 - Rehearsal and Performance **Credits: (1)** (must take four times=4)

Required Theatre Support Course (3 credit hours, choose only 1 option)

- THEA 1033 CA - Introduction to Acting **Credits: (3)** or
- THEA 2022 - Costume Fundamentals **Credits: (3)** or
- THEA 2032 - Lighting Fundamentals **Credits: (3)**
- THEA 2403 - Production and Stage Management **Credits: (3)**

Dance Pedagogy and Theory Required (3 credit hours)

- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**  
*or*
- DANC 3320 - Techniques and Materials for Teaching Modern Dance **Credits: (3)**

Language Courses Required to fulfill the BA

Refer to Degree Requirements in this catalog. Dance Majors must complete Option 1 - Foreign Language (12 credit hours of a foreign language, refer to the Foreign Language section of this catalog for additional information on obtaining foreign language credit) **OR** Option 2 - Foreign Language and Language Arts (**6 credit hours of a foreign language and 6 hours of language arts**)--the required language arts course is: DANC 4800 - Individual Study Credits: (3) **taken 2 times for a total of (6) credit hours.**

## Dance Education (BA)

### Dance Education Major K-12

The purpose of this program is to prepare students for teaching dance in a public school setting (grades K - 12) with certification at the secondary level and an endorsement at the K-6 level, while achieving a Bachelor of Arts (BA) or Bachelor of Science (BS) degree. Upon completion of this degree the student will be prepared for post-baccalaureate programs, or for teaching, performing, or choreographing within the community or private sector.

- **Program Prerequisites:** Students must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) and an overall GPA of at least 2.75.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 56 of these are within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

**The following General Education courses are required by the Dance Education Major (6):**

- DANC 1010 CA/DV - Introduction to Dance (3)
- NUTR 1020 LS - Science and Application of Human Nutrition (3)

### Advisement

Students must consult with the Dance Program advisor at least once each term. Email Amanda Sowerby [asowerby@weber.edu](mailto:asowerby@weber.edu) for more information or to schedule an appointment. Students seeking secondary certification are

encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to General Requirements of this catalog for Bachelor of Science or Bachelor of Arts requirements. See also specific requirements for the BS or BA listed under the major course requirements.

## Course Requirements for BS or BA Degree in Dance Education

Courses Required (57-59 credit hours)

*Below are required classes. Note: Since majors are required to take 8 hours each of Ballet and Modern, some Ballet and Modern will be repeated.*

- DANC 1100 - Ballet I **Credits: (1)** (1 credit each) 2 times=2
- DANC 1200 - Modern I **Credits: (1)** (1 credit each) 2 times=2
- DANC 1310 - Music for Dance **Credits: (2)**
- DANC 1520 - Folk & Ethnic Dance **Credits: (1)**
- DANC 1580 - Rhythm Tap **Credits: (1)**
- DANC 2250 - Alignment and Conditioning for Dance/Pilates **Credits: (1)**
- DANC 2300 - Dance Kinesiology **Credits: (3)**
- DANC 2410 - Improvisation **Credits: (2)**
- DANC 2470 - Ballet II **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 2500 - Jazz II **Credits: (1)** (1 each)
- DANC 2490 - Modern II **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 2610 - Dance and Digital Technology **Credits: (2)**
- DANC 3020 - Dance History II: 20th Century Art and Education **Credits: (3)**
- DANC 3320 - Techniques and Materials for Teaching Modern Dance **Credits: (3)**
- DANC 3470 - Ballet III **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 3490 - Modern III **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 3500 - Choreography I: Space & Time/Design in Dance **Credits: (3)**
- DANC 3510 - Choreography II: Process **Credits: (3)**
- DANC 3520 - Choreography Practicum **Credits: (2)**
- DANC 3860 - Field Experience **Credits: (1-3)**
- DANC 4910 - Rehearsal and Performance **Credits: (1)**

Choose (3) hours of Dance Production course work

- THEA 2022 - Costume Fundamentals **Credits: (3)** or
- THEA 2032 - Lighting Fundamentals **Credits: (3)** or
- THEA 2403 - Production and Stage Management **Credits: (3)**

Additional Coursework for K-12 (additional 9 credit hours)

- CHF 1500 SS/DV - Human Development **Credits: (3)** For students seeking licensure to teach dance in Kindergarten through 12th grade this is a required course outside of the major.

- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**
- EDUC 3430 - Creative Processes in the Elementary School **Credits: (3)**

## Language Courses Required to fulfill the BA in Dance Education

Refer to Degree Requirements in this catalog. Dance majors must complete Option 1 - Foreign Language (12 credit hours of a foreign language, refer to the Foreign Language section of this catalog for additional information on obtaining foreign language credit) **OR** Option 2 - Foreign Language and Language Arts (**6 credit hours of a foreign language and 6 hours of language arts**)--the required language arts course is: DANC 4800 - Individual Study Credits: (3) **taken 2 times for a total of (6) credit hours.**

## College of Education Requirements for Secondary Licensure

33 Credit Hours

### General Education

#### I. University and General Education Requirements

Refer to Degree and General Education Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses required for the Secondary Education Licensure Program will also satisfy general education requirements: COMM 1020 or COMM 2110 and CHF 1500.

#### Course Requirements for Licensure

#### II. Support Courses Required (or equivalent)

- EDUC 1010 - Exploring Teaching **Credits: (3)**

One course from the following

- CHF 1500 SS/DV - Human Development **Credits: (3)** or
- PSY 3140 - Adolescent Psychology **Credits: (3)**

One course from the following

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

#### III. Professional Education Courses Required (24 hours)

##### Secondary Teacher Education Core

- EDUC 3220 - Foundations of Diversity **Credits: (2)**
- EDUC 3265 - The Exceptional Student **Credits: (2)**
- EDUC 3315 - Media Integration in the Secondary School Setting **Credits: (1)**
- EDUC 3900 - Preparing, Teaching, and Assessing Instruction **Credits: (3)**
- EDUC 3910 - Secondary Education Practicum **Credits: (2)**
- EDUC 3935 - Reading and Writing Across the Secondary Curriculum **Credits: (2)**

## Secondary Teacher Education Student Teaching

- EDUC 4940 - Student Teaching in Secondary Education **Credits: (8)**
- EDUC 4950 - Integrated Secondary Student Teaching Seminar **Credits: (4)**

## Music (BA)

- **Program Prerequisite:** Audition required for admission to program.
- **Minor:** Not required.
- **Grade Requirement:** A grade of "C" or better in courses required for these majors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 49 credit hours is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 15 of these are required within the major.

### Advisement

Music majors should meet with an advisor prior to registration. For current advisor listing please refer to School of Music Advisors.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information).

### General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

*Refer to the Department of Performing Arts policies and procedures.*

## Major Course Requirements for Bachelor of Arts in Music Degree

### Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed on Department of Performing Arts.*

### Additional Courses Required (minimum of 21 credit hours)

- MUSC 4900 - Senior Project--BA in Music
  - BA Music Senior Project Policy: Students should enroll in MUSC 4900 only after consultation with and approval by the BA advisor. Ideally, the BA Senior Project will synthesize knowledge and experience acquired from both the music core classes and the students' area of interest, cultivated through electives. Students should enroll in MUSC 4830 (Directed Readings) the semester immediately before MUSC 4900 in order to refine the project proposal with the help of a faculty mentor. The actual completion of the project takes place the following semester in MUSC 4900, also under faculty mentorship. The final grade for the MUSC 4900 project is determined by a three-person faculty committee assembled by the student. Students wishing to present a recital as their BA senior project should register for MUSC 4900 but must adhere to all the guidelines and procedures for senior recitals

(MUSC 4991). Some exceptions can be made at the discretion of the advisor if the recital is but one component of a larger creative/scholarly project.

- Elective Credits: (18)
  - up to 3 credits, may be ensemble or applied music
  - a minimum of 9 upper-division credits
  - advisor approval required for all electives
- All Music BA students must pass the piano proficiency exam

## Language Courses Required to fulfill the BA

Six semester-hours of foreign language is required. This requirement may be satisfied by taking two semesters of the same language or one semester each of two different languages.

An additional six semester hours of foreign language or language arts is required.

## Musical Theatre (BA)

- **Program Prerequisite:** Completion of the required pre-major core courses listed under the following Course Requirements with a grade of "C" or better and an audition are required for admission to this program.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.00 or better.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 62-63 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 19 of these is required within the major.

### Advisement

Students should meet annually with a faculty advisor for course and program advisement. Call 801-626-6437 for more information and referrals for an appointment.

### Admission Requirements

An audition is required for admission to this program after completing the pre-major core courses. Auditions will be scheduled in spring semester each year.

### General Education

Refer to General Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements. The following courses required for this major may also be applied to fill general education requirements: DANC 1010 CA/DV - Introduction to Dance (3), THEA 1033 CA - Introduction to Acting (3) and THEA 1043 CA - Introduction to American Musical Theatre (3).

## Major Course Requirements for BA Degree

Required Pre-Major Core Courses (16 credit hours, including 6.0 credit hours of Creative Arts Gen Ed, so only 10 credit hours are added to the total credit hours)

- DANC 1010 CA/DV - Introduction to Dance **Credits: (3)**
- THEA 1013 CA - Introduction to Theatre **Credits: (3)**
- THEA 1030 - Voice and Movement for the Actor **Credits: (3)**
- THEA 1033 CA - Introduction to Acting **Credits: (3)**
- THEA 1043 CA - Introduction to American Musical Theatre **Credits: (3)**
- THEA 1051 - Freshman (New Student) Seminar **Credits: (1)**

### Language Courses Required to fulfill the BA

Refer to Degree Requirements in this catalog. Musical Theatre majors must complete Option 1 – Foreign Language (12 credit hours of a foreign language, *refer to the Foreign Language section of this catalog for additional information on obtaining foreign language credit*) **OR** Option 2 – Foreign Language and Language Arts (6 credit hours of a foreign language and 6 hours of language arts—the required language arts courses are: THEA 3303 - History and Literature of Theatre I, and THEA 3343 - History & Literature of Musical Theatre).

### Required Courses for Musical Theatre Emphasis

*67 Credit Hours (exclusive of required general education courses)*

Dance (8 credit hours)

*The following courses may be repeated for credit as approved by an advisor*

- DANC 1100 - Ballet I **Credits: (1)**
- DANC 1200 - Modern I **Credits: (1)**
  
- DANC 1450A - Flamenco **(1)** or  
• DANC 3450A - Flamenco **(1)**
  
- DANC 1450B - Social Dance **(1)** or  
• DANC 3450B - Social Dance **(1)**
  
- DANC 1450D - Rhythm Tap **(1)** or  
• DANC 3450D - Rhythm Tap **(1)**
  
- DANC 1500 - Jazz I **Credits: (1)**
- DANC 1520 - Folk & Ethnic Dance **Credits: (1)**
- DANC 1580 - Rhythm Tap **Credits: (1)**
- DANC 2470 - Ballet II **Credits: (1.5)**
- DANC 2500 - Jazz II **Credits: (1)**
- DANC 2490 - Modern II **Credits: (1.5)**
- DANC 3440 - Dance for Musical Theatre **Credits: (1)**
- DANC 3470 - Ballet III **Credits: (1.5)**
- DANC 3490 - Modern III **Credits: (1.5)**
- DANC 4910 - Rehearsal and Performance **Credits: (1)**

**The following courses are also recommended for conditioning and training up to 2 of which may be used to fulfill the Dance requirement:**

- PE 1010 - Aerobics, Level I **Credits: (1)**
- PE 1011 - Aerobics, Level II **Credits: (1)**
- PE 1012 - Aerobics, Level III **Credits: (1)**
- PE 1057 - Hatha Yoga, Level I **Credits: (1)**
- PE 1080 - Strength Training, Level I **Credits: (1)**
- PE 1081 - Strength Training, Level II **Credits: (1)**
- PE 1082 - Strength Training, Level III **Credits: (1)**
- PE 1155 - Fencing, Level I **Credits: (1)**
- PE 1410 - TaiChi, Level I **Credits: (1)**
- PE 2810 (Experimental Course Number) when the title is 'Pilates' **Credits: (1)**

Music (6 credit hours)

- MUSC 1100 - Fundamentals of Music **Credits: (2)**
- MUSC 1143 - Music Theory and Piano for Musical Theatre **Credits: (4)**

Theatre (43 credit hours)

- THEA 1223 - Stage Makeup **Credits: (3)**
- THEA 1713 - Script Analysis **Credits: (3)**
- THEA 2033 - Acting II **Credits: (3)**
- THEA 2443 - Acting for Musical Theatre **Credits: (3)**
- THEA 3103 - Directing I **Credits: (3)**
- THEA 3303 - History and Literature of Theatre I **Credits: (3)**
- THEA 3343 - History & Literature of Musical Theatre **Credits: (3)**
- THEA 3443 - Scene Study for Musical Theatre **Credits: (3)**
- THEA 3991 - Junior Seminar **Credits: (1)**
- THEA 4143 - Directing and Choreographing for Musical Theatre **Credits: (3)**
- THEA 4651 - Individual Training in Stage Voice **Credits: (1)** (repeated 6 times)

*Select two of the following technical theatre classes*

- THEA 2012 - Stagecraft **Credits: (3)**
- THEA 2022 - Costume Fundamentals **Credits: (3)**
- THEA 2032 - Lighting Fundamentals **Credits: (3)**

Theatre Design (3 credit hours)

*Select one of the following theatre design classes*

- THEA 3100 - Projection Design **Credits: (3)**
- THEA 3212 - Scenic Design **Credits: (3)**
- THEA 3222 - Lighting Design **Credits: (3)**
- THEA 3500 - Sound Design **Credits: (3)**
- THEA 4203 - Costume Design **Credits: (3)**

# Theatre Arts (BA)

## Theatre Arts Major and Theatre Arts Teaching Major (BA)

- **Program Prerequisite:** Not Required.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.00 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 44-48 credit hours must be earned in Theatre Arts courses. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 19 of these is required within the major.

### Advisement

Students should meet annually with a faculty advisor for course and program advisement. Call 801-626-6437 for more information and referrals for an appointment. The faculty advisor must approve courses taken in focus areas. (Also refer to the Department Advisor Referral List which includes email addresses for faculty advisors.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements. The following general education courses are required for the Theatre Major: THEA 1033 Acting I (3), ARTH 1090 Art and Architecture of the World: Paleolithic-AD 1000 (4) or ARTH 1100 Art and Architecture of the World: AD 1000-Present (4), and ENGL 3500 - Introduction to Shakespeare (3).

### Major Course Requirements for BA Degree

*47 Credit Hours (exclusive of required general education courses)*

Theatre Courses Required (36 credit hours)

- THEA 1013 CA - Introduction to Theatre **Credits: (3)**
- THEA 1030 - Voice and Movement for the Actor **Credits: (3)**
- THEA 1051 - Freshman (New Student) Seminar **Credits: (1)**
- THEA 1713 - Script Analysis **Credits: (3)**
- THEA 1223 - Stage Makeup **Credits: (3)**
- THEA 2012 - Stagecraft **Credits: (3)**
- THEA 2022 - Costume Fundamentals **Credits: (3)**
- THEA 2032 - Lighting Fundamentals **Credits: (3)**
- THEA 2403 - Production and Stage Management **Credits: (3)**
- THEA 3103 - Directing I **Credits: (3)**
- THEA 3303 - History and Literature of Theatre I **Credits: (3)**
- THEA 3313 - History and Literature of Theatre II **Credits: (3)**
- THEA 3991 - Junior Seminar **Credits: (1)**
- THEA 4900 - Senior Project **Credits: (1)**

Theatre Design (3 credit hours)

*Select one of the following theatre design classes*

- THEA 3212 - Scenic Design **Credits: (3)**
- THEA 3222 - Lighting Design **Credits: (3)**
- THEA 4203 - Costume Design **Credits: (3)**
- THEA 3500 - Sound Design **Credits: (3)**

Theatre Practicum (3 credit hours)

*Select 3 credit hours from the following options*

- THEA 4851 - Design/Tech/Management Practicum **Credits: (1)** *may be repeated for credit*
- THEA 4861 - Performance Practicum **Credits: (1)** *may be repeated for credit*

General Education Courses Required (10 credit hours)

*The following general education courses are required for the Theatre Major:*

- THEA 1033 CA - Introduction to Acting **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)** or
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ENGL 3500 HU - Introduction to Shakespeare **Credits: (3)**

Language Courses Required to fulfill the BA

Refer to Degree Requirements in this catalog. Theatre majors must complete Option 1 – Foreign Language (12 credit hours of a foreign language, *refer to the Foreign Language section of this catalog for additional information on obtaining foreign language credit*) **OR** Option 2 – Foreign Language and Language Arts (6 credit hours of a foreign language and 6 hours of language arts—the required language arts courses are: THEA 3303 - History and Literature of Theatre I, and THEA 3313 - History and Literature of Theatre II).

Focus Areas and Sample Programs (7 credit hours)

*Select at least 7 credit hours in one of the following emphasis areas, approved by an advisor*

Acting/Directing

- THEA 2033 - Acting II **Credits: (3)**
- THEA 3033 - Advanced Acting **Credits: (3)**
- THEA 3340 - Theatre Management **Credits: (3)**
- THEA 4002D - Special Studies in Theatre: Auditioning **Credits: (2)**
- THEA 4103 - Directing II **Credits: (3)**
- THEA 4143 - Directing and Choreographing for Musical Theatre **Credits: (3)**
- THEA 4230 - Performance Seminar **Credits: (1-3)**
- THEA 4890 - Cooperative Work Experience or Internship **Credits: (1-3)**
- COMM 3070 - Performance Studies **Credits: (3)**

## Design/Technical/Management

- THEA 2203 - Costume Technology **Credits: (3)**
- THEA 2580 - Computer Software for the Theatre **Credits: (3)**
- THEA 3100 - Projection Design **Credits: (3)**
- THEA 3212 - Scenic Design **Credits: (3)**
- THEA 3222 - Lighting Design **Credits: (3)**
- THEA 3232 - Scenic Art and Painting **Credits: (3)**
- THEA 3243 - Costume History **Credits: (3)**
- THEA 4120 - Collaboration in the Theatre **Credits: (3)**
- THEA 4203 - Costume Design **Credits: (3)**
- THEA 4220 - Design Seminar **Credits: (1-3)**
- THEA 4890 - Cooperative Work Experience or Internship **Credits: (1-3)**

Additional classes from across campus for Design/Technical/Management Emphasis

*see individual course descriptions for prerequisites*

- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3)**
- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 2350 - Small Metals/Jewelry I **Credits: (3)**
- ART 3120 - Figure Drawing **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- COMM 3070 - Performance Studies **Credits: (3)**
- BDC 1040 - Introduction to Building Design & Construction **Credits: (3)**
- BDC 1350 - Residential Design & Codes **Credits: (3)**
- IDT 1020 - Presentation Techniques **Credits: (3)**
- IDT 2010 - Sustainability I: Textiles and Soft Materials **Credits: (3)**
- IDT 3040 - Perspective/Rendering **Credits: (2)**
- IDT 2820 - Historical Interiors **Credits: (3)**

## Theatre Arts Generalist

*Select at least 15 credit hours from the following courses, prerequisites may need to be met first*

- THEA 2330 - Dramaturgy and Criticism **Credits: (3)**
- THEA 2403 - Production and Stage Management **Credits: (3)**
- THEA 3103 - Directing I **Credits: (3)**
- THEA 3323 HU - History and Literature of Contemporary Theatre **Credits: (3)**
- THEA 3340 - Theatre Management **Credits: (3)**
- THEA 3343 - History & Literature of Musical Theatre **Credits: (3)**
- THEA 3505 - Playwriting **Credits: (3)**
- THEA 4103 - Directing II **Credits: (3)**
- THEA 4120 - Collaboration in the Theatre **Credits: (3)**
- THEA 4270 - Dramatic Theory and Analysis **Credits: (3)**
- THEA 4603 - Creative Drama **Credits: (3)**
- THEA 4860 - Advanced Playwriting **Credits: (3)**

# Theatre Arts Teaching (BA)

## Theatre Arts Major and Theatre Arts Teaching Major (BA)

- **Program Prerequisite:** Not Required.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.00 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 44-48 credit hours must be earned in Theatre Arts courses. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 19 of these is required within the major.

### Advisement

Students should meet annually with a faculty advisor for course and program advisement. Call 801-626-6437 for more information and referrals for an appointment. The faculty advisor must approve courses taken in focus areas. (Also refer to the Department Advisor Referral List which includes email addresses for faculty advisors.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements of this catalog for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements. The following general education courses are required for the Theatre Major: THEA 1033 Acting I (3), ARTH 1090 Art and Architecture of the World: Paleolithic-AD 1000 (4) or ARTH 1100 Art and Architecture of the World: AD 1000-Present (4), and ENGL 3500 - Introduction to Shakespeare (3).

### Major Course Requirements for BA Degree

*47 Credit Hours (exclusive of required general education courses)*

Theatre Courses Required (36 credit hours)

- THEA 1013 CA - Introduction to Theatre **Credits: (3)**
- THEA 1030 - Voice and Movement for the Actor **Credits: (3)**
- THEA 1051 - Freshman (New Student) Seminar **Credits: (1)**
- THEA 1713 - Script Analysis **Credits: (3)**
- THEA 1223 - Stage Makeup **Credits: (3)**
- THEA 2012 - Stagecraft **Credits: (3)**
- THEA 2022 - Costume Fundamentals **Credits: (3)**
- THEA 2032 - Lighting Fundamentals **Credits: (3)**
- THEA 2403 - Production and Stage Management **Credits: (3)**
- THEA 3103 - Directing I **Credits: (3)**
- THEA 3303 - History and Literature of Theatre I **Credits: (3)**
- THEA 3313 - History and Literature of Theatre II **Credits: (3)**
- THEA 3991 - Junior Seminar **Credits: (1)**
- THEA 4900 - Senior Project **Credits: (1)**

Theatre Design (3 credit hours)

*Select one of the following theatre design classes*

- THEA 3212 - Scenic Design **Credits: (3)**
- THEA 3222 - Lighting Design **Credits: (3)**
- THEA 4203 - Costume Design **Credits: (3)**
- THEA 3500 - Sound Design **Credits: (3)**

Theatre Practicum (3 credit hours)

*Select 3 credit hours from the following options*

- THEA 4851 - Design/Tech/Management Practicum **Credits: (1)** *may be repeated for credit*
- THEA 4861 - Performance Practicum **Credits: (1)** *may be repeated for credit*

General Education Courses Required (10 credit hours)

*The following general education courses are required for the Theatre Major:*

- THEA 1033 CA - Introduction to Acting **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)** or
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ENGL 3500 HU - Introduction to Shakespeare **Credits: (3)**

Language Courses Required to fulfill the BA

Refer to Degree Requirements in this catalog. Theatre majors must complete Option 1 – Foreign Language (12 credit hours of a foreign language, *refer to the Foreign Language section of this catalog for additional information on obtaining foreign language credit*) **OR** Option 2 – Foreign Language and Language Arts (6 credit hours of a foreign language and 6 hours of language arts—the required language arts courses are: THEA 3303 - History and Literature of Theatre I, and THEA 3313 - History and Literature of Theatre II).

Focus Areas and Sample Programs (7 credit hours)

*Select at least 7 credit hours in one of the following emphasis areas, approved by an advisor*

Acting/Directing

- THEA 2033 - Acting II **Credits: (3)**
- THEA 3033 - Advanced Acting **Credits: (3)**
- THEA 3340 - Theatre Management **Credits: (3)**
- THEA 4002D - Special Studies in Theatre: Auditioning **Credits: (2)**
- THEA 4103 - Directing II **Credits: (3)**
- THEA 4143 - Directing and Choreographing for Musical Theatre **Credits: (3)**
- THEA 4230 - Performance Seminar **Credits: (1-3)**
- THEA 4890 - Cooperative Work Experience or Internship **Credits: (1-3)**
- COMM 3070 - Performance Studies **Credits: (3)**

## Design/Technical/Management

- THEA 2203 - Costume Technology **Credits: (3)**
- THEA 2580 - Computer Software for the Theatre **Credits: (3)**
- THEA 3100 - Projection Design **Credits: (3)**
- THEA 3212 - Scenic Design **Credits: (3)**
- THEA 3222 - Lighting Design **Credits: (3)**
- THEA 3232 - Scenic Art and Painting **Credits: (3)**
- THEA 3243 - Costume History **Credits: (3)**
- THEA 4120 - Collaboration in the Theatre **Credits: (3)**
- THEA 4203 - Costume Design **Credits: (3)**
- THEA 4220 - Design Seminar **Credits: (1-3)**
- THEA 4890 - Cooperative Work Experience or Internship **Credits: (1-3)**

Additional classes from across campus for Design/Technical/Management Emphasis

*see individual course descriptions for prerequisites*

- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3)**
- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 2350 - Small Metals/Jewelry I **Credits: (3)**
- ART 3120 - Figure Drawing **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- COMM 3070 - Performance Studies **Credits: (3)**
- BDC 1040 - Introduction to Building Design & Construction **Credits: (3)**
- BDC 1350 - Residential Design & Codes **Credits: (3)**
- IDT 1020 - Presentation Techniques **Credits: (3)**
- IDT 2010 - Sustainability I: Textiles and Soft Materials **Credits: (3)**
- IDT 3040 - Perspective/Rendering **Credits: (2)**
- IDT 2820 - Historical Interiors **Credits: (3)**

## Theatre Arts Generalist

*Select at least 15 credit hours from the following courses, prerequisites may need to be met first*

- THEA 2330 - Dramaturgy and Criticism **Credits: (3)**
- THEA 2403 - Production and Stage Management **Credits: (3)**
- THEA 3103 - Directing I **Credits: (3)**
- THEA 3323 HU - History and Literature of Contemporary Theatre **Credits: (3)**
- THEA 3340 - Theatre Management **Credits: (3)**
- THEA 3343 - History & Literature of Musical Theatre **Credits: (3)**
- THEA 3505 - Playwriting **Credits: (3)**
- THEA 4103 - Directing II **Credits: (3)**
- THEA 4120 - Collaboration in the Theatre **Credits: (3)**
- THEA 4270 - Dramatic Theory and Analysis **Credits: (3)**
- THEA 4603 - Creative Drama **Credits: (3)**
- THEA 4860 - Advanced Playwriting **Credits: (3)**

## Theatre Teaching Requirements

*Additional requirements for students completing the BA in Theatre Teaching*

### Required Theatre Classes

- THEA 3340 - Theatre Management **Credits: (3)**
- THEA 4713 - Teaching Theatre in the Secondary School **Credits: (3)**

And select one of the following

- THEA 2033 - Acting II **Credits: (3)**
- THEA 2330 - Dramaturgy and Criticism **Credits: (3)**
- THEA 2580 - Computer Software for the Theatre **Credits: (3)**
- THEA 3033 - Advanced Acting **Credits: (3)**
- THEA 3070 - Voice and Movement for the Actor II **Credits: (3)**
- THEA 3350 - Marketing and Communication for the Arts **Credits: (3)**
- THEA 3505 - Playwriting **Credits: (3)**
- THEA 4103 - Directing II **Credits: (3)**
- THEA 4120 - Collaboration in the Theatre **Credits: (3)**
- THEA 4143 - Directing and Choreographing for Musical Theatre **Credits: (3)**
- THEA 4270 - Dramatic Theory and Analysis **Credits: (3)**
- THEA 4603 - Creative Drama **Credits: (3)**
- THEA 4860 - Advanced Playwriting **Credits: (3)**

### Note:

*Theatre teaching majors must also satisfy the Teacher Education admission and licensure requirements.*

## Music Major Performance and Pedagogy (BM)

- **Program Prerequisite:** Audition required for admission to program.
- **Minor:** Not required.
- **Grade Requirement:** A grade of "C" or better in courses required for these majors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 52 credit hours is required within the major for the Bachelor of Music in Performance and a minimum of 58 credit hours is required within the major for the Bachelor of Music in Keyboard Pedagogy, Stringed Instrument Pedagogy, or Vocal Pedagogy. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 18-28 of these are required within the major.

### Advisement

Music majors should meet with an advisor prior to registration. For current advisor listing please refer to School of Music Advisors.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). All students in these Bachelor of Music programs must audition with the appropriate area head prior to admission to the program.

## General Education

Refer to Degree Requirements for Bachelor of Music requirements. WEB 1700 and LIBS 1704 will fulfill the Computer Literacy general education requirement. PSY 1010 is recommended.

*Refer to the School of Music policies and procedures.*

*Students in the BM and BME programs must be enrolled in Class Piano or private piano lessons until piano proficiency is passed. Students may not register for private instruction at the 3000 or 4000 level until piano proficiency is passed.*

## Major Course Requirements for Bachelor of Music Degree

### Keyboard Performance Emphasis

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed in the Department of Performing Arts.*

Additional Courses Required (minimum of 30 credit hours)

- MUSC 2321 - Principles of Piano Accompanying I **Credits: (1)**
- MUSC 2331 - Principles of Piano Accompanying II **Credits: (1)**
- MUSC 3102 - Counterpoint **Credits: (2)**
- MUSC 3302 - Keyboard Literature I-II **Credits: (2)**
- MUSC 3312 - Keyboard Literature I-II **Credits: (2)**
  
- MUSC 3872 - Choral Conducting I-II **Credits: (2)** or
- MUSC 3822 - Instrumental Conducting I-II **Credits: (2)**
  
- MUSC 3991 - Junior Recital **Credits: (1)**
- MUSC 4302 - Keyboard Pedagogy I-II **Credits: (2)**
- MUSC 4312 - Keyboard Pedagogy I-II **Credits: (2)**
- MUSC 4991 - Senior Recital **Credits: (1)**
- Applied Music in appropriate area (**min. 6 semesters**)
- Major Ensemble in appropriate area (**min. 8 semesters**)
- Piano Proficiency

Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

### Vocal Performance emphasis

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed in the Department of Performing Arts.*

Additional Courses Required (minimum of 28 credit hours)

- MUSC 2321 - Principles of Piano Accompanying I **Credits: (1)**
- MUSC 2331 - Principles of Piano Accompanying II **Credits: (1)**
- MUSC 3102 - Counterpoint **Credits: (2)**

- MUSC 3402 - Vocal Literature I **Credits: (2)**
- MUSC 3412 - Vocal Literature II **Credits: (2)**
- MUSC 3872 - Choral Conducting I-II **Credits: (2)**
- MUSC 3991 - Junior Recital **Credits: (1)**
- MUSC 4402 - Vocal Pedagogy I-II **Credits: (2)**
- MUSC 4412 - Vocal Pedagogy I-II **Credits: (2)**
- MUSC 4991 - Senior Recital **Credits: (1)**
- Applied Music in appropriate area (**min. 6 semesters**)
- Major Ensemble in appropriate area (**min. 8 semesters**)
- Piano Proficiency

#### Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

#### Instrumental Performance Emphasis

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed in the Department of Performing Arts.*

Additional Courses Required (minimum of 22 credit hours)

***Choose 2 courses from the following first group that are most closely related to the student's major performance area:***

- MUSC 2821 - Percussion Methods I **Credits: (1)** and
- MUSC 2822 - Percussion Methods II **Credits: (1)**
- **or**
- MUSC 2841 - Brass Methods I **Credits: (1)** and
- MUSC 2842 - Brass Methods II **Credits: (1)**
- **or**
- MUSC 2851 - Woodwind Methods I **Credits: (1)** and
- MUSC 2852 - Woodwind Methods II **Credits: (1)**
- **or**
- MUSC 2871 - String Methods I **Credits: (1)** and
- MUSC 2872 - String Methods II **Credits: (1)**
- **or**
- MUSC 3851 - Stringed Instrument Pedagogy I **Credits: (2)** and
- MUSC 3852 - Stringed Instrument Pedagogy II **Credits: (2)**
- MUSC 3102 - Counterpoint **Credits: (2)**
- MUSC 3822 - Instrumental Conducting I-II **Credits: (2)** and
- MUSC 3823 - Instrumental Conducting I-II **Credits: (2)**
- MUSC 3991 - Junior Recital **Credits: (1)**
- MUSC 4991 - Senior Recital **Credits: (1)**
- Applied Music in appropriate area (**min. 6 semesters**)
- Major Ensemble in appropriate area (**min. 8 semesters**)
- Piano Proficiency

## Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

## Keyboard Pedagogy Emphasis

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed in the Department of Performing Arts.*

Additional Courses Required (minimum of 32 credit hours)

- MUSC 2321 - Principles of Piano Accompanying I **Credits: (1)**
- MUSC 2331 - Principles of Piano Accompanying II **Credits: (1)**
- MUSC 3102 - Counterpoint **Credits: (2)**
- MUSC 3302 - Keyboard Literature I-II **Credits: (2)**
- MUSC 3312 - Keyboard Literature I-II **Credits: (2)**
  
- MUSC 3872 - Choral Conducting I-II **Credits: (2)** or
- MUSC 3822 - Instrumental Conducting I-II **Credits: (2)**
  
- MUSC 4302 - Keyboard Pedagogy I-II **Credits: (2)**
- MUSC 4312 - Keyboard Pedagogy I-II **Credits: (2)**
- MUSC 4860 - Internship in Music **Credits: (1-3)** (min. 2 credit hours required)
- MUSC 4991 - Senior Recital **Credits: (1)**
- Applied Piano or Organ (**min. 7 semesters**)
- Keyboard Ensemble (**min. 8 semesters**)
- Piano Proficiency

Note:

*Refer to the student handbook and course requirement handouts for specific Internship and Directed Reading requirements.*

## Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

## Stringed Instrument Pedagogy Emphasis

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed in the Department of Performing Arts.*

Additional Courses Required (minimum of 32 credit hours)

- MUSC 2871 - String Methods I **Credits: (1)**
- MUSC 2872 - String Methods II **Credits: (1)**
- MUSC 3102 - Counterpoint **Credits: (2)**
- MUSC 3822 - Instrumental Conducting I-II **Credits: (2)**
- MUSC 3823 - Instrumental Conducting I-II **Credits: (2)**
- MUSC 3851 - Stringed Instrument Pedagogy I **Credits: (2)**

- MUSC 3852 - Stringed Instrument Pedagogy II **Credits: (2)**
- MUSC 4771 - Stringed Instrument Literature I **Credits: (2)**
- MUSC 4772 - Stringed Instrument Literature II **Credits: (2)**
- MUSC 4991 - Senior Recital **Credits: (1)**
- Applied Music on appropriate stringed instrument (**min. 7 semesters**)
- Weber State Symphony Orchestra (**min. 8 semesters**)
- Piano Proficiency

Note:

*Refer to the student handbook and course requirement handouts for specific Internship and Directed Reading requirements.*

Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

Vocal Pedagogy Emphasis

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed in the Department of Performing Arts.*

Additional Courses Required (minimum of 32 credit hours)

- MUSC 2321 - Principles of Piano Accompanying I **Credits: (1)**
- MUSC 2331 - Principles of Piano Accompanying II **Credits: (1)**
- MUSC 3102 - Counterpoint **Credits: (2)**
- MUSC 3402 - Vocal Literature I **Credits: (2)**
- MUSC 3412 - Vocal Literature II **Credits: (2)**
- MUSC 3872 - Choral Conducting I-II **Credits: (2)**
- MUSC 3991 - Junior Recital **Credits: (1)**
- MUSC 4402 - Vocal Pedagogy I-II **Credits: (2)**
- MUSC 4412 - Vocal Pedagogy I-II **Credits: (2)**
- MUSC 4860 - Internship in Music **Credits: (1-3)** (min. 2 credit hours required)
- MUSC 4991 - Senior Recital **Credits: (1)**
- Applied Music in appropriate area (**min. 6 semesters**)
- Major Ensemble in appropriate area (**min. 8 semesters**)
- Piano Proficiency

Note:

*Refer to the student handbook and course requirement handouts for specific Internship and Directed Reading requirements.*

Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

# Music Education Teaching (BME)

- **Program Prerequisites:** Audition required for admission to program. Must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for either the Choral or Instrumental Emphasis; a minimum of 64 credit hours is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 23-28 of these are required within the major.

## Advisement

Music majors should meet with an advisor prior to registration. For current advisor listing please refer to School of Music Advisors.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for Bachelor of Music requirements. WEB 1700 and LIBS 1704 will fulfill the Computer Literacy general education requirement. PSY 1010 is recommended.

*Refer to the School of Music policies and procedures.*

*Students in the BM, BME and BA programs must be enrolled in Class Piano or private piano lessons until piano proficiency is passed. Students may not register for private instruction at the 3000 or 4000 level until piano proficiency is passed.*

## Major Course Requirements for Bachelor of Music Education Degree

### Choral Music Education Emphasis (Secondary Only Option)

*For students seeking licensure to teach music in secondary schools*

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed on Department of Performing Arts.*

Additional Courses Required (minimum of 34-37 credit hours)

*Students whose main performing instrument is piano or organ must also take two semesters of MUSC 1620 and one semester of MUSC 2620 (voice lessons)*

- MUSC 2321 - Principles of Piano Accompanying I **Credits: (1)**
- MUSC 2331 - Principles of Piano Accompanying II **Credits: (1)**
- MUSC 2540 - Instrumental Techniques for Choral Majors **Credits: (2)**
- MUSC 3122 - Choral Arranging **Credits: (2)**
- MUSC 3842 - Producing the School Musical **Credits: (2)**

- MUSC 3872 - Choral Conducting I-II **Credits: (2)**
- MUSC 3882 - Choral Conducting I-II **Credits: (2)**
- MUSC 3991 - Junior Recital **Credits: (1)**
- MUSC 4402 - Vocal Pedagogy I-II **Credits: (2)**
- MUSC 4822 - Junior High/ Middle School Music Methods **Credits: (2)**
- MUSC 4842 - High School Music Methods **Credits: (2)**
- MUSC 4860 - Internship in Music **Credits: (1-3)** (min. 1 credit hour required)
  
- MUSC 4991 - Senior Recital **Credits: (1)** or
- MUSC 4992 - Senior Project **Credits: (1)** \*

Note:

*\*Students must enroll in MUSC 4830 - Directed Readings (1) as a prerequisite.*

Applied Voice or Piano – *min. 6 semesters*

Major Choral Ensemble – *min. 7 semesters*

Piano proficiency

Foreign Language

See Foreign Language Requirements in the Music Area procedures and policies.

### Instrumental Music Education Emphasis (Secondary Only Option)

*For students seeking licensure to teach music in secondary schools*

Music Core (30 credit hours)

*Complete the Music Core Course Requirements listed on Department of Performing Arts.*

Additional Courses Required (minimum of 35 credit hours)

- MUSC 2821 - Percussion Methods I **Credits: (1)**
- MUSC 2822 - Percussion Methods II **Credits: (1)**
- MUSC 2841 - Brass Methods I **Credits: (1)**
- MUSC 2842 - Brass Methods II **Credits: (1)**
- MUSC 2851 - Woodwind Methods I **Credits: (1)**
- MUSC 2852 - Woodwind Methods II **Credits: (1)**
- MUSC 2871 - String Methods I **Credits: (1)**
- MUSC 2872 - String Methods II **Credits: (1)**
- MUSC 2881 - Vocal Workshop **Credits: (1)**
- MUSC 3112 - Orchestration **Credits: (2)**
- MUSC 3822 - Instrumental Conducting I-II **Credits: (2)**
- MUSC 3823 - Instrumental Conducting I-II **Credits: (2)**
- MUSC 3991 - Junior Recital **Credits: (1)**
- MUSC 4822 - Junior High/ Middle School Music Methods **Credits: (2)**
- MUSC 4842 - High School Music Methods **Credits: (2)**
- MUSC 4860 - Internship in Music **Credits: (1-3)** (min. 1 credit hour required)
  
- MUSC 4991 - Senior Recital **Credits: (1)** or
- MUSC 4992 - Senior Project **Credits: (1)** \*

Note:

*\*Students must enroll in MUSC 4830 - Directed Readings (1) as a prerequisite.*

Applied Music in appropriate area – *min. 6 semesters*

Major Ensemble in appropriate area – *min. 7 semesters*

Piano proficiency

## Additional Coursework for K-12 Option

*For students seeking licensure to teach music in Kindergarten through 12th grade*

*CHF 1500 SS/DV - Human Development (3) is a required course outside of the major*

### Courses Required

- MUSC 3924 - Music Teaching and Learning in the Elementary School **Credits: (4)**
- MUSC 4860 - Internship in Music **Credits: (1-3)** (min. 2 credit hours required)
- (1 additional credit hour)

## Dance Education (BS)

### Dance Education Major K-12

The purpose of this program is to prepare students for teaching dance in a public school setting (grades K - 12) with certification at the secondary level and an endorsement at the K-6 level, while achieving a Bachelor of Arts (BA) or Bachelor of Science (BS) degree. Upon completion of this degree the student will be prepared for post-baccalaureate programs, or for teaching, performing, or choreographing within the community or private sector.

- **Program Prerequisites:** Students must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable) and an overall GPA of at least 2.75.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 56 of these are within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

**The following General Education courses are required by the Dance Education Major (6):**

- **DANC 1010 CA/DV - Introduction to Dance (3)**
- **NUTR 1020 LS - Science and Application of Human Nutrition (3)**

### Advisement

Students must consult with the Dance Program advisor at least once each term. Email Amanda Sowerby [asowerby@weber.edu](mailto:asowerby@weber.edu) for more information or to schedule an appointment. Students seeking secondary certification are encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study. Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to General Requirements of this catalog for Bachelor of Science or Bachelor of Arts requirements. See also specific requirements for the BS or BA listed under the major course requirements.

## Course Requirements for BS or BA Degree in Dance Education

Courses Required (57-59 credit hours)

*Below are required classes. Note: Since majors are required to take 8 hours each of Ballet and Modern, some Ballet and Modern will be repeated.*

- DANC 1100 - Ballet I **Credits: (1)** (1 credit each) 2 times=2
- DANC 1200 - Modern I **Credits: (1)** (1 credit each) 2 times=2
- DANC 1310 - Music for Dance **Credits: (2)**
- DANC 1520 - Folk & Ethnic Dance **Credits: (1)**
- DANC 1580 - Rhythm Tap **Credits: (1)**
- DANC 2250 - Alignment and Conditioning for Dance/Pilates **Credits: (1)**
- DANC 2300 - Dance Kinesiology **Credits: (3)**
- DANC 2410 - Improvisation **Credits: (2)**
- DANC 2470 - Ballet II **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 2500 - Jazz II **Credits: (1)** (1 each)
- DANC 2490 - Modern II **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 2610 - Dance and Digital Technology **Credits: (2)**
- DANC 3020 - Dance History II: 20th Century Art and Education **Credits: (3)**
- DANC 3320 - Techniques and Materials for Teaching Modern Dance **Credits: (3)**
- DANC 3470 - Ballet III **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 3490 - Modern III **Credits: (1.5)** (1.5 credit each) 2 times=3
- DANC 3500 - Choreography I: Space & Time/Design in Dance **Credits: (3)**
- DANC 3510 - Choreography II: Process **Credits: (3)**
- DANC 3520 - Choreography Practicum **Credits: (2)**
- DANC 3860 - Field Experience **Credits: (1-3)**
- DANC 4910 - Rehearsal and Performance **Credits: (1)**

Choose (3) hours of Dance Production course work

- THEA 2022 - Costume Fundamentals **Credits: (3)** or
- THEA 2032 - Lighting Fundamentals **Credits: (3)** or
- THEA 2403 - Production and Stage Management **Credits: (3)**

Additional Coursework for K-12 (additional 9 credit hours)

- CHF 1500 SS/DV - Human Development **Credits: (3)** For students seeking licensure to teach dance in Kindergarten through 12th grade this is a required course outside of the major.
- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**
- EDUC 3430 - Creative Processes in the Elementary School **Credits: (3)**

## Health and Science Courses Required to fulfill the BS in Dance Education

- ZOOL 1020 LS - Human Biology **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- ZOOL 3570 - Foundations of Science Education **Credits: (3)**

## College of Education Requirements for Secondary Licensure

33 Credit Hours

### General Education

#### I. University and General Education Requirements

Refer to Degree and General Education Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses required for the Secondary Education Licensure Program will also satisfy general education requirements: COMM 1020 or COMM 2110 and CHF 1500.

#### Course Requirements for Licensure

#### II. Support Courses Required (or equivalent)

- EDUC 1010 - Exploring Teaching **Credits: (3)**

One course from the following

- CHF 1500 SS/DV - Human Development **Credits: (3)** or
- PSY 3140 - Adolescent Psychology **Credits: (3)**

One course from the following

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

#### III. Professional Education Courses Required (24 hours)

##### Secondary Teacher Education Core

- EDUC 3220 - Foundations of Diversity **Credits: (2)**
- EDUC 3265 - The Exceptional Student **Credits: (2)**
- EDUC 3315 - Media Integration in the Secondary School Setting **Credits: (1)**
- EDUC 3900 - Preparing, Teaching, and Assessing Instruction **Credits: (3)**
- EDUC 3910 - Secondary Education Practicum **Credits: (2)**
- EDUC 3935 - Reading and Writing Across the Secondary Curriculum **Credits: (2)**

##### Secondary Teacher Education Student Teaching

- EDUC 4940 - Student Teaching in Secondary Education **Credits: (8)**
- EDUC 4950 - Integrated Secondary Student Teaching Seminar **Credits: (4)**

# Music/Fine Arts Concentration for Elementary Education

- **Program Prerequisite:** Fulfill the Elementary Education Major requirements (see Elementary Education in the Department of Teacher Education).
- **Minor:** Required.
- **Grade Requirements:** Refer to the Elementary Education Major in the Department of Teacher Education
- **Credit Hour Requirements:** A total of 9 or 18 credit hours for these concentrations. Also refer to the Elementary Education Major in the Department of Teacher Education.

## Courses for 9 or 18 Hour Fine Arts Concentration

*Students electing the 9 or 18 hour Fine Arts Concentration may choose from the following music courses as part of this concentration.*

- MUSC 1010 CA - Introduction to Music **Credits: (3)**
- MUSC 1100 - Fundamentals of Music **Credits: (2)**
- MUSC 3824 - Music for Elementary Teachers **Credits: (4) \***

## Courses for 9 Hour Music Concentration

*Students electing the 9 hour Music Concentration may choose from the following music courses to satisfy the concentration requirements.*

- MUSC 1010 CA - Introduction to Music **Credits: (3)**
- MUSC 1040 CA/DV - Music of World Cultures **Credits: (3)**
- MUSC 1063 CA - Music in Religion **Credits: (3)**
- MUSC 1100 - Fundamentals of Music **Credits: (2)**
- MUSC 2881 - Vocal Workshop **Credits: (1)**
- MUSC 3824 - Music for Elementary Teachers **Credits: (4) \***

### Note:

*\* Required course*

## Dance Minor

*A dance minor is available for students not wishing to specialize but who have an interest in dance and want a concentration of study in the area to complement an affiliated program of study. Students wishing the minor program must register with the Dance Program Director. Coursework is individualized, with selections to be made from the following areas.*

- **Grade Requirements:** A GPA of 2.25 or better in courses used toward the minor.
- **Advisement:** Students should meet annually, if not more often, with the faculty advisor for course and program advisement. Email Erik Stern [estern@weber.edu](mailto:estern@weber.edu) for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List).
- **Credit Hour Requirements:** Minimum of 18 credit hours, with no fewer than 3 nor more than 9 in any one of the following three areas listed.

## Course Requirements for Minor

### Courses Required (18 credit hours)

*Select 18 credit hours from the following, with no fewer than 3 nor more than 9 in any one of the three areas listed. Additional coursework to total 18 credit hours may be chosen, with advisor's written approval, from remaining dance electives or in approved related areas.*

#### Area 1, Technique

*Select the appropriate level from the following*

*Any course may be repeated once*

- DANC 1100 - Ballet I **Credits: (1)**
- DANC 1200 - Modern I **Credits: (1)**
- DANC 1450 - Special Topic Dance Form **Credits: (1)**
- DANC 1500 - Jazz I **Credits: (1)**
- DANC 1520 - Folk & Ethnic Dance **Credits: (1)**
- DANC 1580 - Rhythm Tap **Credits: (1)**
- DANC 2470 - Ballet II **Credits: (1.5)**
- DANC 2500 - Jazz II **Credits: (1)**
- DANC 2490 - Modern II **Credits: (1.5)**
- DANC 3440 - Dance for Musical Theatre **Credits: (1)**
- DANC 3450 - Special Topic Dance Form **Credits: (1)**
- DANC 3470 - Ballet III **Credits: (1.5)**
- DANC 3490 - Modern III **Credits: (1.5)**

#### Area 2, Creative Work

- DANC 2410 - Improvisation **Credits: (2)**
- DANC 2610 - Dance and Digital Technology **Credits: (2)**
- DANC 3500 - Choreography I: Space & Time/Design in Dance **Credits: (3)**
- DANC 3510 - Choreography II: Process **Credits: (3)**
- DANC 3520 - Choreography Practicum **Credits: (2)**
- DANC 3910 - Moving Company: Rehearsal & Development **Credits: (2)** CEL
- DANC 3911 - Moving Company: Performance **Credits: (2)** CEL
- DANC 4610 - Dance and Digital Technology **Credits: (2)**
- DANC 4620 - Dance and Digital Technology Seminar **Credits: (1)**
- DANC 4890 - Cooperative Work Experience **Credits: (1-6)** CEL
- DANC 4910 - Rehearsal and Performance **Credits: (1)**

#### Area 3, Theoretical Aspects

- DANC 1010 CA/DV - Introduction to Dance **Credits: (3)**
- DANC 3010 - Dance History I **Credits: (3)**
- DANC 3020 - Dance History II: 20th Century Art and Education **Credits: (3)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**

# Music Minor

- **Program Prerequisite:** Audition required for admission to the program.
- **Grade Requirements:** A grade of C (2.00) or better in courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 24 credit hours.

## Advisement

Music minors should meet with an advisor prior to registration. For current advisor listing please refer to School of Music Advisors.

## Course Requirements for Music Minor

Music Courses Required (24 credit hours)

- MUSC 1010 CA - Introduction to Music **Credits: (3)**
- MUSC 1110 - Music Theory I **Credits: (3)**
- MUSC 1120 - Music Theory II **Credits: (3)**
- MUSC 1130 - Sight-Singing & Aural Skills I **Credits: (1)**
- MUSC 1140 - Sight-Singing & Aural Skills II **Credits: (1)**
- MUSC 1150 - Class Piano I **Credits: (1)**
- MUSC 1160 - Class Piano II **Credits: (1)**
- MUSC 1901 - Music: The First-Year Experience **Credits: (1)**
- MUSC 3991 - Junior Recital **Credits: (1)**

One of the following General Education courses:

- MUSC 1030 CA - Introduction to Jazz **Credits: (3)**
- MUSC 1033 CA - Introduction to American Music **Credits: (3)**
- MUSC 1035 CA - History of Rock and Roll **Credits: (3)**
- MUSC 1040 CA/DV - Music of World Cultures **Credits: (3)**
- MUSC 1043 HU - Music, the Arts & Civilizations **Credits: (3)**
- MUSC 1063 CA - Music in Religion **Credits: (3)**

## Applied Music Requirement

*4 credit hours minimum or until completion of the Junior Recital*

## Major Ensemble Requirement

*2 credit hours minimum or until completion of the music minor requirements*

# Sound Production/Recording Minor

Sound Production/Recording is the art and science of capturing and editing music, sound, and dialog. This course of study will prepare the student to succeed as a music producer, recording technician, post-production designer, or other similar fields. The program emphasizes hands-on learning on state-of-the-art equipment.

**Program Prerequisite:** Successful interview with the program advisor

**Grade Requirements:** A grade of C (2.00) or better in courses used toward the minor

**Credit Hour Requirements:** Minimum of 24 credit hours

## Advisement

Sound Production/Recording minors should meet with the program advisor at least once an academic year.

## Course Requirements for Sound Production/Recording Minor

Required Courses (19 credit hours)

- MUSC 4820 - Pro Tools 101 **Credits: (2)**
- MUSC 4821 - Pro Tools 110 **Credits: (2)**
- MUSC 3820 - The Art and Science of Recording I **Credits: (3)**
- MUSC 3821 - The Art and Science of Recording II **Credits: (3)**
- MUSC 3720 - Analog Audio **Credits: (2)**
- MUSC 3721 - Live Sound in the 21st Century **Credits: (2)**
- MUSC 3722 - History of Recording **Credits: (2)**
- MUSC 4995 - Capstone Project **Credits: (3)**

Electives (5 credit hours minimum)

*Select a minimum of 5 credit hours from the following*

- MUSC 1911 - Introduction to Music Technology **Credits: (1)**
- MUSC 3723 - Field Recording/Sound for Picture **Credits: (2)**
- MUSC 3724 - Studio Construction **Credits: (1)**
- MUSC 3725 - Alternative Digital Audio Workstations **Credits: (2)**
- MUSC 3726 - Creative Lab **Credits: (1)**
- *Creative Lab may be repeated but only counts toward elective fulfillment once*

## Theatre Arts Minor

- **Grade Requirements:** A grade of “C” or better in courses used toward the minor.
- **Credit Hour Requirements:** A minimum of 19 credit hours in Theatre Arts classes.

## Course Requirements for Minor

Theatre Courses Required (21 credit hours)

- THEA 1013 CA - Introduction to Theatre **Credits: (3)**
- THEA 1033 CA - Introduction to Acting **Credits: (3)**
- THEA 1713 - Script Analysis **Credits: (3)**

Select two of the following technical theatre classes

- THEA 1223 - Stage Makeup **Credits: (3)**
- THEA 2012 - Stagecraft **Credits: (3)**
- THEA 2022 - Costume Fundamentals **Credits: (3)**
- THEA 2032 - Lighting Fundamentals **Credits: (3)**

Select one of the following theatre history classes

- THEA 3303 - History and Literature of Theatre I **Credits: (3)**
- THEA 3313 - History and Literature of Theatre II **Credits: (3)**
- THEA 3323 HU - History and Literature of Contemporary Theatre **Credits: (3)**

Complete 3 credit hours of upper division Theatre Arts course work.

## Dance Teaching Minor

*A dance teaching minor is available for students seeking a concentration of study in dance teaching to complement an affiliated program. Students wishing the minor program must register with the Dance Program advisor.*

- **Grade Requirements:** A GPA of 2.25 or better in courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 21-23 credit hours.
- **Advisement:** Students should meet annually, if not more often, with the faculty advisor for course and program advisement. Email Erik Stern [estern@weber.edu](mailto:estern@weber.edu) for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List).

*Students who select the Dance Teaching Minor and are seeking teacher certification for the state of Utah must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education in this catalog).*

## Course Requirements for Minor

Specific Dance Teaching Courses Required (16-18 credit hours)

- DANC 3320 - Techniques and Materials for Teaching Modern Dance **Credits: (3)**
- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**
- DANC 3860 - Field Experience **Credits: (1-3)**
  
- DANC 3010 - Dance History I **Credits: (3)** or
- DANC 3020 - Dance History II: 20th Century Art and Education **Credits: (3)**
  
- DANC 3470 - Ballet III **Credits: (1.5)**
- DANC 3490 - Modern III **Credits: (1.5)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**

Additional Dance Forms Required (2 credit hours)

*Select two credit hours from the following - none of these classes may be repeated for credit towards a Dance Teaching Minor*

- DANC 1520 - Folk & Ethnic Dance **Credits: (1)**
- DANC 2500 - Jazz II **Credits: (1)**

- DANC 3440 - Dance for Musical Theatre **Credits: (1)**

### Creative Courses Required (minimum 3 credit hours)

- DANC 2410 - Improvisation **Credits: (2)**
- DANC 3500 - Choreography I: Space & Time/Design in Dance **Credits: (3)**
- DANC 3510 - Choreography II: Process **Credits: (3)**
- DANC 3520 - Choreography Practicum **Credits: (2)**
- DANC 3910 - Moving Company: Rehearsal & Development **Credits: (2)** CEL
- DANC 3911 - Moving Company: Performance **Credits: (2)** CEL
- DANC 4910 - Rehearsal and Performance **Credits: (1)** \*

Note:

*\*may be repeated once for credit*

## Theatre Arts Teaching Minor

- **Grade Requirements:** A grade of "C" or better in courses used toward the minor.
- **Credit Hour Requirements:** A minimum of 24 credit hours in Theatre Arts classes.

*Students who select the Theatre Arts Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education in this catalog).*

### Course Requirements for Teaching Minor

Required Courses (24 credit hours exclusive of required general education courses)

- THEA 1013 CA - Introduction to Theatre **Credits: (3)**
- THEA 1033 CA - Introduction to Acting **Credits: (3)**
- THEA 1713 - Script Analysis **Credits: (3)**
- THEA 3103 - Directing I **Credits: (3)**
- THEA 4713 - Teaching Theatre in the Secondary School **Credits: (3)**

Select two of the following technical theatre classes (6 credit hours)

- THEA 1223 - Stage Makeup **Credits: (3)**
- THEA 2012 - Stagecraft **Credits: (3)**
- THEA 2022 - Costume Fundamentals **Credits: (3)**
- THEA 2032 - Lighting Fundamentals **Credits: (3)**

Select one of the following theatre history classes (3 credit hours)

- THEA 3303 - History and Literature of Theatre I **Credits: (3)**
- THEA 3313 - History and Literature of Theatre II **Credits: (3)**
- THEA 3323 HU - History and Literature of Contemporary Theatre **Credits: (3)**

## Dance Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Music Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Theatre Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Department of Visual Art and Design

**Department Chair:** Matthew Choberka

**Location:** Ethel Wattis Kimball Visual Arts Center

**Telephone Contact:** Cynthia Kurien 801-626-6455

**Professors:** Naseem Banerji, Mark Biddle, Matthew Choberka, Angelika Pagel, K Stevenson; **Associate Professors:** Larry Clarkson, Paul Crow, Joshua Winegar, Stephen Wolochowicz; **Assistant Professors:** Micah Bauer, Dianna Huxhold, Jason Manley, Molly Morin; **Visiting Assistant Professor:** Scott Horsley

Our world is partially understood through smell, taste, sound, and touch. But perhaps most of all we make sense of our environment through what we see. The art, architecture, mass media and even the furniture in our spaces bear distinct messages that influence our decisions and enrich life.

Creative processes are exciting. Students of art and design contribute new expression to the vitality of our visual environment and learn to interpret what is seen through trained observation. Innovative thinking is absolutely necessary for success and must be balanced against research and critical judgment. Emphasis is placed on writing and the critical evaluation of artistic products. Students gain experience at preparing exhibits and portfolios for eventual professional activity.

Studies in art and art history offer windows of understanding to other cultures, both past and present. This is one of our primary concerns in preparing citizens for productive relations in an increasingly multicultural society.

Seventy-eight different courses are offered by the Department of Visual Arts. These span traditional areas such as art history, art education, ceramics, drawing, small metals/jewelry, painting, photography, printmaking, sculpture, and visual communication. The department is continually expanding into emerging modes of expression involving digital video, digital photography, animation, interactive design, and sound. Classes are enhanced by public lectures, seminars, workshops and special sessions by critics, historians, and visiting artists.

Weber State University supports three Bachelor's degrees in the visual arts with specializations in most of the areas mentioned above. The Bachelor of Arts and Bachelor of Science degrees provide a broad liberal arts background, a solid base for many careers or further study. The Bachelor of Fine Arts degree is more professionally focused with high concentrations of studio art and art history. The BFA is for students who wish to move directly into professional work in

art or design, or those who intend to pursue graduate study in the visual arts. Senior exhibitions are required for most Bachelor of Fine Arts majors.

The Elizabeth Dee Shaw Gallery exhibits art that exemplifies the ideas and values of the curriculum. This serves our students and the public interest as well. Exhibitions involving regional, national, and internationally recognized artists serve a vital role in the cultural life of the community. The Gallery organizes at least six exhibitions each year. All are free and open to the public.

### **Transfer of Credits**

Transfer students must present an official transcript and a portfolio to petition course substitutions for visual arts program requirements. A minimum number of departmental residency hours is required for completion of degree programs: 19 credit hours for the BFA, 12 hours for BS and BA programs, 6 hours for minors.

The University requires students seeking a second baccalaureate degree to complete a full year in residence and a minimum of 30 total credit hours.

### **Studio Fees**

Studio fees are required in most visual arts classes. Check the current course schedule for exact amounts.

### **Course Requirements**

#### **Foundation Courses Required for All Art Majors (27 credit hours)**

*The following are required for all BS/BA/BFA majors and should be completed by the end of the sophomore year.*

*Studio Foundation courses are offered Fall and Spring semesters. Look for an "F" or a "Sp" at the end of ArtHistory and advanced studio course titles to see when they are usually offered. An "e" or an "o" indicates that the course is offered only in even or odd years. Course offering schedules may change. Consult the current course schedule for the latest information. The 1000 level courses should be taken during the freshman year.*

- ART 1040 - Orientation to Visual Studies **Credits: (3) F, Sp**
- ART 1110 - Drawing I **Credits: (3) F, Sp**
- ART 1120 - Design Concepts **Credits: (3) F, Sp**
- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3) F, Sp**
- ART 1135 - Approaches to Materials, Space and Time **Credits: (3) F, Sp**

#### **Choose two of the following courses**

- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4) F**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4) Sp**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4) F, Sp**

#### **Choose one of the following courses**

- ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4) Sp (o)**
- \* ARTH 3040 - Modern Art **Credits: (4) F**
- \* ARTH 3050 - Contemporary Art **Credits: (4) Sp (e)**
- ARTH 3060 - The Art and Architecture of India **Credits: (4) Sp (e)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4) Sp (o)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4) F (o)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4) F (e)**
- ARTH 3451 - History of Design **Credits: (4)**

- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4) Sp (e)**
- \* *Art Education majors must select either ARTH 3040 or ARTH 3050*

### **Asian Studies Minor**

The Department of Visual Arts participates in the Asian Studies Minor Program. Students who wish to enroll in this program should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Interdisciplinary Programs section of this catalog.)

## **Art (AA)**

An Associate of Arts with an Art major will indicate that a student has completed all WSU AA degree requirements and the Studio Foundations curriculum required for the Bachelor of Arts in Art. Students who have completed the AA degree may continue with intermediate and advanced coursework for the BA, and are eligible to apply for admission to the Bachelor of Fine Arts degree program (Graphic Design, Photography, Art Education, 2-dimensional Media, or 3-dimensional Media).

**Grade Requirements:** A grade of "C" or better in all courses (a grade of "C-" is not acceptable).

### **Advisement**

Art majors are encouraged to meet with a departmental advisor at least annually for course and program advisement. Call 801-626-6762 for more information or to schedule an appointment.

### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information ). There are no special admission or application requirements for this major.

### **General Education**

Refer to Degree Requirements of this catalog for Associate of Arts requirements.

## **Studio Foundation Courses**

All Art pre-majors are required to take the five Studio Foundations courses:

- ART 1040 - Orientation to Visual Studies **Credits: (3)**
- ART 1110 - Drawing I **Credits: (3)**
- ART 1120 - Design Concepts **Credits: (3)**
- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3)**
- ART 1135 - Approaches to Materials, Space and Time **Credits: (3)**

## **Studio Electives**

In addition, choose two studio elective courses at the 2000-level, for which the Studio Foundations courses serve as prerequisites. Suggested courses include:

- ART 2200 - Introduction to Printmaking **Credits: (3)**
- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**

- ART 2310 - Introduction to Ceramic Art **Credits: (3)**
- ART 2350 - Small Metals/Jewelry I **Credits: (3)**
- ART 2430 - Introduction to Graphic Design **Credits: (3)**
- ART 2450 - Foundations of Photography: Color/Digital **Credits: (3)**
- ART 2600 - Painting I **Credits: (3)**
- ART 2700 - Sculpture I **Credits: (3)**
- ART 2750 - Foundations of Video Art **Credits: (3)**

## Art (BA)

- **Program Prerequisite:** Not required.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours are required for graduation. Of this total, 48 credit hours in Visual Arts are required. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above from any department).

### Advisement

All Art majors and minors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information) with the department secretary. There are no special admission or application requirements.

### General Education

Refer to Degree Requirements for Bachelor of Arts requirements. Either one of the following Foundation courses will also fulfill 3 credit hours of the General Education requirement in the Creative Arts category: ARTH 1090 and ARTH 1100.

## Language Courses Required to fulfill the BA

General Art majors must complete *Option 1*: Foreign Language (12 credit hours of a foreign language, refer to the Department of Foreign Languages section of this catalog for additional information on obtaining foreign language credit)

**OR Option 2** - Foreign Language and Language Arts (6 credit hours of a foreign language and 6 credit hours of language arts). With this option students **MUST** take ENGL 3080 Critical Approaches to Literature **AND** one of the following: ART 1040, ARTH 3451, ART 3085, ARTH CA 1090, ARTH CA 1100, ARTH 2040, ARTH 3030, ARTH 3040, ARTH 3050, ARTH 3060, ARTH 3070, ARTH 3080, ARTH 3100, ARTH 3451, ARTH 3950. This language arts requirement is in addition to other discipline specific courses required for the BA. No double dipping.

## Major Course Requirements for General Art BA Degree

Foundation Courses (27 credit hours)

see *Department of Visual Art and Design*

Required Studio Distribution (9 credit hours)

Select one of the following:

- ART 2200 - Introduction to Printmaking **Credits: (3)**
- ART 2600 - Painting I **Credits: (3)**

Select one of the following:

- ART 2310 - Introduction to Ceramic Art **Credits: (3)**
- ART 2700 - Sculpture I **Credits: (3)**

Select one of the following:

- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 2450 - Foundations of Photography: Color/Digital **Credits: (3)**
- ART 3430 - Typography and Publication Design **Credits: (3)**

Studio Electives (12 credit hours)

Select 12 credit hours of studio art coursework.

## Art Education (BA)

*Art Education majors are encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269) and in the Visual Arts Department (call 801-626-7273).*

- **Program Prerequisite:** Not required.
- **Minor:** Required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. Of this total, 48 credit hours in Visual Arts are required. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above from any department).

*Students who select the Art Education Major must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department).*

### Advisement

All Art Education majors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

All Art Education majors must first declare a Major (program of study - see Enrollment Services and Information) with the department secretary and must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See also specific requirements for the BS or BA listed under the major course requirements. The following Foundation courses will also fulfill general education requirements in the creative arts category: ARTH 1090 and ARTH 1100.

## Art Education Major Course Requirements for BA Degree

### Foundation Courses (27 credit hours)

*see Department of Visual Art and Design*

*Note: For the Art History foundation course, Art Education majors must select ARTH 3040 (prerequisite ARTH 1100).*

### Studio Distribution (9 credit hours)

Select one of the following

- ART 2200 - Introduction to Printmaking **Credits: (3)**
- ART 2600 - Painting I **Credits: (3)**

Select one of the following

- ART 2310 - Introduction to Ceramic Art **Credits: (3)**
- ART 2700 - Sculpture I **Credits: (3)**

Select one of the following

- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 3430 - Typography and Publication Design **Credits: (3)**

### Required Courses (6 credit hours)

- ART 3515 - Art Methods and Resources for Secondary Teachers I [Art Methods I] **Credits: (3)**
- ART 3520 - Art Methods and Resources for Secondary Teachers II [Art Methods II] **Credits: (3)**

### Studio Electives (6 credit hours)

*Select six credit hours of studio art coursework.*

### Language Courses Required to fulfill the BA

Refer to Degree and General Education Requirements in this catalog and complete Option 1 - Foreign Language listed under Requirements for Bachelor's Degrees, or Option 2 - 6 credit hours of Foreign Language, plus ENGL 3080 and ARTH 3050.

## 2D Media Emphasis, Art (BFA)

- **Program Prerequisite:** Completion of Foundation courses with minimum grade requirements followed by mandatory advising (refer to the BFA Admission Requirements below).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. Of this total, 75 credit hours are required for the BFA degree. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above).

### Advisement

All Art majors and minors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### BFA Admission Requirements

All Art majors must first declare a Major in General Art (program of study - see Enrollment Services and Information) with the department secretary. Once the five Foundation courses have been completed with a minimum grade of B- in each, students schedule a mandatory advising meeting with the department chair to declare their BFA major in one of the five studio areas of emphasis. After admittance, students plan their studio elective classes in consultation with the department chair and a faculty advisor from the chosen emphasis area.

*Students who select the Art Education emphasis must satisfy the Teacher Education admission and licensure requirements (see Teacher Education department).*

### General Education

Refer to Degree Requirements for Bachelor of Fine Arts requirements. The following Foundation/elective courses will also fulfill general education requirements in the creative arts category: ARTH 1090 and ARTH 1100.

## Course Requirements for the BFA

Foundation Courses (27 credit hours)

### Required Studio Distribution (9 credit hours)

*see Department of Visual Art and Design*

*Note: For the Art History foundation course, Art Education majors must select either ARTH 3040 or ARTH 3050 (prerequisite ARTH 1100 CA).*

*Note: For the Graphic Design emphasis, ARTH 3451 is required. It may help to satisfy either the Art History Electives category or the Studio Focus category within the emphasis area.*

Required Courses

- ART 3085 - Critical Issues in Art **Credits: (3)**
- ART 3995 - BFA Seminar **Credits: (3)**
- ART 4990 - BFA Thesis **Credits: (3)** (includes senior exhibit)

Art History Electives (4 credit hours)

*Select one of the following*

- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**
- ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**
- ARTH 3040 - Modern Art **Credits: (4)**
- ARTH 3050 - Contemporary Art **Credits: (4)**
- ARTH 3055 - Special Topics in Art History **Credits: (4)**
- ARTH 3060 - The Art and Architecture of India **Credits: (4)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4)**
- ARTH 3451 - History of Design **Credits: (4)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

## Studio Focus Courses:

*Choose 26 credit hours in consultation with your faculty adviser.*

Recommended Courses (21 credits)

- ART 3120 - Figure Drawing **Credits: (3)**
- ART 3200 - Intermediate Printmaking **Credits: (3)**
- ART 3210 - Relief Printmaking **Credits: (3)**
- ART 3215 - Etching Printmaking **Credits: (3)**
- ART 3600 - Painting II **Credits: (3)**
- \* ART 4110 - Advanced Drawing **Credits: (3)**
- \* ART 4120 - Advanced Figure Drawing **Credits: (3)**
- \* ART 4200 - Advanced Printmaking **Credits: (3)**
- \* ART 4600 - Painting III **Credits: (3)**

Notes:

Visual arts courses that are not being used to fulfill the major requirements (studio distribution, art-history) may fulfill electives credits.

\*May be repeated twice for a total of 9 credit hours.

## 3D Media Emphasis, Art (BFA)

- **Program Prerequisite:** Completion of Foundation courses with minimum grade requirements followed by mandatory advising (refer to the BFA Admission Requirements below).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. Of this total, 75 credit hours are required for the BFA degree. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above).

## Advisement

All Art majors and minors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## BFA Admission Requirements

All Art majors must first declare a Major in General Art (program of study - see Enrollment Services and Information) with the department secretary. Once the five Foundation courses have been completed with a minimum grade of B- in each, students schedule a mandatory advising meeting with the department chair to declare their BFA major in one of the five studio areas of emphasis. After admittance, students plan their studio elective classes in consultation with the department chair and a faculty advisor from the chosen emphasis area.

*Students who select the Art Education emphasis must satisfy the Teacher Education admission and licensure requirements (see Teacher Education department).*

## General Education

Refer to Degree Requirements for Bachelor of Fine Arts requirements. The following Foundation/elective courses will also fulfill general education requirements in the creative arts category: ARTH 1090 and ARTH 1100.

## Course Requirements for the BFA

Foundation Courses (27 credit hours)

### Required Studio Distribution (9 credit hours)

*see Department of Visual Art and Design*

*Note: For the Art History foundation course, Art Education majors must select either ARTH 3040 or ARTH 3050 (prerequisite ARTH 1100 CA).*

*Note: For the Graphic Design emphasis, ARTH 3451 is required. It may help to satisfy either the Art History Electives category or the Studio Focus category within the emphasis area.*

Required Courses

- ART 3085 - Critical Issues in Art **Credits: (3)**
- ART 3995 - BFA Seminar **Credits: (3)**
- ART 4990 - BFA Thesis **Credits: (3)** (includes senior exhibit)

Art History Electives (4 credit hours)

*Select one of the following*

- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**
- ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**
- ARTH 3040 - Modern Art **Credits: (4)**
- ARTH 3050 - Contemporary Art **Credits: (4)**
- ARTH 3055 - Special Topics in Art History **Credits: (4)**

- ARTH 3060 - The Art and Architecture of India **Credits: (4)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4)**
- ARTH 3451 - History of Design **Credits: (4)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

## Studio Focus Courses:

*Choose 26 credit hours in consultation with your faculty adviser.*

### Recommended Courses

- ART 2310 - Introduction to Ceramic Art **Credits: (3)**
- ART 2700 - Sculpture I **Credits: (3)**
- \* ART 2850 - Furniture Design **Credits: (3)**
- ART 3310 - Ceramics II **Credits: (3)**
- ART 3320 - Ceramics III: Intermediate **Credits: (3)**
- ART 3700 - Sculpture II **Credits: (3)**
- \* ART 3720 - Public Art **Credits: (3)**
- \* ART 4310 - Ceramics IV: Advanced **Credits: (3)**
- \* ART 4320 - Ceramics V: The Artist's Identity **Credits: (3)**
- \* ART 4700 - Sculpture III **Credits: (3)**

Notes:

Visual arts courses that are not being used to fulfill the major requirements (studio distribution, art-history) may fulfill electives credits.

\*May be repeated twice for a total of 9 credit hours.

## Art (BFA)

The Bachelor of Fine Arts (BFA) degree is the professional studio-focused undergraduate degree in visual art and graphic design. The degree does not require a Minor, instead focusing on additional studio, art history, and capstone course requirements, making the BFA the preferred preparation for graduate study, and for students planning on careers as independent studio artists and designers. Select from the areas of emphasis listed below for detailed information on BFA admissions and additional program requirements.

### Areas of Emphasis

*Select one of the following areas of emphasis:*

#### Four-year degree:

2D Media Emphasis, Art (BFA) (drawing, painting, printmaking)

3D Media Emphasis, Art (BFA) (ceramics, sculpture)

Photography Emphasis, Art (BFA)

Graphic Design Emphasis, Art (BFA) (graphic design in print/interactive media)

#### Five-year degree:

Art Education Emphasis, Art (BFA)

# Art Education Emphasis, Art (BFA)

- **Program Prerequisite:** Completion of Foundation courses with minimum grade requirements followed by mandatory advising (refer to the BFA Admission Requirements below).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. Of this total, 75 credit hours are required for the BFA degree. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above).

## Advisement

All Art majors and minors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## BFA Admission Requirements

All Art majors must first declare a Major in General Art (program of study - see Enrollment Services and Information) with the department secretary. Once the five Foundation courses have been completed with a minimum grade of B- in each, students schedule a mandatory advising meeting with the department chair to declare their BFA major in one of the five studio areas of emphasis. After admittance, students plan their studio elective classes in consultation with the department chair and a faculty advisor from the chosen emphasis area.

*Students who select the Art Education emphasis must satisfy the Teacher Education admission and licensure requirements (see Teacher Education department).*

## General Education

Refer to Degree Requirements for Bachelor of Fine Arts requirements. The following Foundation/elective courses will also fulfill general education requirements in the creative arts category: ARTH 1090 and ARTH 1100.

## Course Requirements for the BFA

Foundation Courses (27 credit hours)

### Required Studio Distribution (9 credit hours)

*see Department of Visual Art and Design*

*Note: For the Art History foundation course, Art Education majors must select either ARTH 3040 or ARTH 3050 (prerequisite ARTH 1100 CA).*

*Note: For the Graphic Design emphasis, ARTH 3451 is required. It may help to satisfy either the Art History Electives category or the Studio Focus category within the emphasis area.*

Required Courses

- ART 3085 - Critical Issues in Art **Credits: (3)**
- ART 3995 - BFA Seminar **Credits: (3)**
- ART 4990 - BFA Thesis **Credits: (3)** (includes senior exhibit)

Art History Electives (4 credit hours)

*Select one of the following*

- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**
- ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**
- ARTH 3040 - Modern Art **Credits: (4)**
- ARTH 3050 - Contemporary Art **Credits: (4)**
- ARTH 3055 - Special Topics in Art History **Credits: (4)**
- ARTH 3060 - The Art and Architecture of India **Credits: (4)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4)**
- ARTH 3451 - History of Design **Credits: (4)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

## **Additional Requirements for Art Education Emphasis**

- ART 3515 - Art Methods and Resources for Secondary Teachers I [Art Methods I] **Credits: (3)** (see note under emphasis section)
- ART 3520 - Art Methods and Resources for Secondary Teachers II [Art Methods II] **Credits: (3)**

## **Studio Focus Courses:**

*Choose 20 credit hours in consultation with your faculty adviser. Courses will depend on area of emphasis.*

Note:

Prerequisites for Art Methods I (ART 3515) include ARTH 1100 CA and *either* ARTH 3040 *or* ARTH 3050.

## **Graphic Design Emphasis, Art (BFA)**

- **Program Prerequisite:** Completion of Foundation courses with minimum grade requirements followed by mandatory advising (refer to the BFA Admission Requirements below).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. Of this total, 75 credit hours are required for the BFA degree. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above).

## **Advisement**

All Art majors and minors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## **BFA Admission Requirements**

All Art majors must first declare a Major in General Art (program of study - see Enrollment Services and Information) with the department secretary. Once the five Foundation courses have been completed with a minimum grade of B- in each, students schedule a mandatory advising meeting with the department chair to declare their BFA major in one of the five studio areas of emphasis. After admittance, students plan their studio elective classes in consultation with the department chair and a faculty advisor from the chosen emphasis area.

*Students who select the Art Education emphasis must satisfy the Teacher Education admission and licensure requirements (see Teacher Education department).*

## **General Education**

Refer to Degree Requirements for Bachelor of Fine Arts requirements. The following Foundation/elective courses will also fulfill general education requirements in the creative arts category: ARTH 1090 and ARTH 1100.

## **Course Requirements for the BFA**

Foundation Courses (27 credit hours)

Required Studio Distribution (9 credit hours)

*see Department of Visual Art and Design*

*Note: For the Art History foundation course, Art Education majors must select either ARTH 3040 or ARTH 3050 (prerequisite ARTH 1100 CA).*

*Note: For the Graphic Design emphasis, ARTH 3451 is required. It may help to satisfy either the Art History Electives category or the Studio Focus category within the emphasis area.*

Required for Graphic Design Emphasis

- ART 4410 - Design Seminar **Credits: (3)**

Art History Electives (4 credit hours)

*Select one of the following*

- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**
- ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**
- ARTH 3040 - Modern Art **Credits: (4)**
- ARTH 3050 - Contemporary Art **Credits: (4)**
- ARTH 3055 - Special Topics in Art History **Credits: (4)**
- ARTH 3060 - The Art and Architecture of India **Credits: (4)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4)**
- ARTH 3451 - History of Design **Credits: (4)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

## Studio Focus Courses:

*Choose 32 credit hours in consultation with your faculty adviser.*

Required (28 credit hours)

- ART 2420A - Bitmap Imaging **Credits: (1)**
- ART 2420B - Vector Drawing **Credits: (1)**
- ART 2420C - Digital Page Composition **Credits: (1)**
- ART 2430 - Introduction to Graphic Design **Credits: (3)**
- ART 3410 - Design Seminar for Juniors **Credits: (3)**
- ART 3430 - Typography and Publication Design **Credits: (3)**
- ART 3435 - Experimental Typography **Credits: (3)**
- ART 3445 - Web Design for Visual Arts **Credits: (3)**
- ARTH 3451 - History of Design **Credits: (4)**
- ART 3455 - Design Theory and Practice **Credits: (3)**
- ART 4400 - Advanced Graphic Design **Credits: (3)**

Electives (Complete the 32-hour requirement by choosing from below)

- ART 2200 - Introduction to Printmaking **Credits: (3)**
- ART 2450 - Foundations of Photography: Color/Digital **Credits: (3)**
- ART 3200 - Intermediate Printmaking **Credits: (3)**
- ART 3460 - Illustration **Credits: (3)**
- ART 3465 - Motion Design **Credits: (3)**
- \* ART 4200 - Advanced Printmaking **Credits: (3)**
- \* ART 4400 - Advanced Graphic Design **Credits: (3)**
- ART 4415 - Design Production **Credits: (3)**
- \* ART 4420 - Advanced Digital Media **Credits: (3)**
- \* ART 4440 - Interaction Design **Credits: (3)**
- \* ART 4460 - Advanced Illustration **Credits: (3)**
- ART 4890 - Cooperative Work Experience **Credits: (1-2, 6 maximum)** (by arrangement only for (1) credit)

*\* May be repeated for a total of 9 credit hours.*

## Photography Emphasis, Art (BFA)

- **Program Prerequisite:** Completion of Foundation courses with minimum grade requirements followed by mandatory advisement (refer to the BFA Admission Requirements below).
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in courses required for all majors and minors (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. Of this total, 75 credit hours are required for the BFA degree. A total of 40 upper division credit hours is required by the university for graduation (courses numbered 3000 and above).

### Advisement

All Art majors and minors should interview with the department chair/advisor early in their course of study. Call the Department of Visual Arts at 801-626-6455 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## **BFA Admission Requirements**

All Art majors must first declare a Major in General Art (program of study - see Enrollment Services and Information) with the department secretary. Once the five Foundation courses have been completed with a minimum grade of B- in each, students schedule a mandatory advising meeting with the department chair to declare their BFA major in one of the five studio areas of emphasis. After admittance, students plan their studio elective classes in consultation with the department chair and a faculty advisor from the chosen emphasis area.

*Students who select the Art Education emphasis must satisfy the Teacher Education admission and licensure requirements (see Teacher Education department).*

## **General Education**

Refer to Degree Requirements for Bachelor of Fine Arts requirements. The following Foundation/elective courses will also fulfill general education requirements in the creative arts category: ARTH 1090 and ARTH 1100.

## **Course Requirements for the BFA**

Foundation Courses (27 credit hours)

### **Required Studio Distribution (9 credit hours)**

*see Department of Visual Art and Design*

*Note: For the Art History foundation course, Art Education majors must select either ARTH 3040 or ARTH 3050 (prerequisite ARTH 1100 CA).*

*Note: For the Graphic Design emphasis, ARTH 3451 is required. It may help to satisfy either the Art History Electives category or the Studio Focus category within the emphasis area.*

Required Courses

- ART 3085 - Critical Issues in Art **Credits: (3)**
- ART 3995 - BFA Seminar **Credits: (3)**
- ART 4990 - BFA Thesis **Credits: (3)** (includes senior exhibit)

Art History Electives (4 credit hours)

*Select one of the following*

- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**
- ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**
- ARTH 3040 - Modern Art **Credits: (4)**
- ARTH 3050 - Contemporary Art **Credits: (4)**
- ARTH 3055 - Special Topics in Art History **Credits: (4)**
- ARTH 3060 - The Art and Architecture of India **Credits: (4)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4)**
- ARTH 3451 - History of Design **Credits: (4)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

## Studio Focus Courses:

*Choose 26 credit hours in consultation with your faculty adviser. Other courses may be considered.*

### Required (12 credit hours)

- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 2450 - Foundations of Photography: Color/Digital **Credits: (3)**
- ART 2750 - Foundations of Video Art **Credits: (3)**
- \* ART 3150 - Photography Seminar **Credits: (3)**

*\*May be repeated twice for a total of 9 credit hours*

### Electives (minimum of 14 credit hours)

- \* ART 3500 - Advanced Time-Based Media/Video Art **Credits: (3)**
- \* ART 3550 - Photography: View Camera Techniques **Credits: (3)**
- ART 4550 - Photography: Studio Lighting **Credits: (3)**
- \* ART 4660 - Special Topics in Photography **Credits: (3)**
- \* ART 4750 - Experimental Photography **Credits: (3)**
- \* ART 4910 - Photography: Internship **Credits: (1-3)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

*\*May be repeated twice for a total of 9 credit hours*

## Art Education Minor

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 24 credit hours.

*Students who select the Art Education Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

## Course Requirements for Minor

### Required Courses (18 credit hours)

- ART 1010 CA - Introduction to the Visual Arts **Credits: (3)**
- ART 1110 - Drawing I **Credits: (3)**
- ART 1120 - Design Concepts **Credits: (3)**
- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3)**
- ART 3515 - Art Methods and Resources for Secondary Teachers I [Art Methods I] **Credits: (3)**
- ART 3520 - Art Methods and Resources for Secondary Teachers II [Art Methods II] **Credits: (3)**

### Elective Course (6 credit hours)

*Select two courses from the following*

- ART 2200 - Introduction to Printmaking **Credits: (3)**

- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 2310 - Introduction to Ceramic Art **Credits: (3)**
- ART 2350 - Small Metals/Jewelry I **Credits: (3)**
- ART 2600 - Painting I **Credits: (3)**
- ART 2700 - Sculpture I **Credits: (3)**
- ART 3430 - Typography and Publication Design **Credits: (3)**
- ART 2430 - Introduction to Graphic Design **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**

Note:

*Courses which satisfy major requirements cannot also satisfy minor requirements. Substitutions must be made for the Art Major student minoring in Art Education. Consult with the Department of Visual Arts Chair.*

## Art History Minor

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 23 credit hours.

### Course Requirements for Minor

Required Courses (15 credit hours)

- ART 1040 - Orientation to Visual Studies **Credits: (3)**
- ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000 **Credits: (4)**
- ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present **Credits: (4)**
- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**

Elective Course (8 credit hours)

*Select two upper division art history (ARTH) courses for elective credit.*

Note:

*Courses which satisfy major requirements cannot also satisfy minor requirements. Substitutions must be made for the Art Major student minoring in Art History. Consult with the Department of Visual Arts Chair.*

## Art Minor

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 24 credit hours.

### Course Requirements for Minor

#### Required Courses (15 credit hours)

- ART 1040 - Orientation to Visual Studies **Credits: (3)**
- ART 1110 - Drawing I **Credits: (3)**
- ART 1120 - Design Concepts **Credits: (3)**
- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3)**
- ART 1135 - Approaches to Materials, Space and Time **Credits: (3)**

#### Electives Courses (9 credit hours)

*Choose nine credit hours of art courses in consultation with the Department of Visual Arts Chair.*

Note:

*General Art, Art Education and BFA majors cannot declare an Art minor. Art History, Art Education, and Photography are the only departmental minor options for the art major. Courses which satisfy major requirements cannot also satisfy minor requirements. Substitutions must be made. Consult with the Department of Visual Arts Chair.*

## Design for Digital Media Minor

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 24 credit hours.

### Course Requirements for Minor

#### Core Courses Required (12 credit hours)

- ART 1110 - Drawing I **Credits: (3)**
- ART 1120 - Design Concepts **Credits: (3)**
- ART 1130 - Approaches to Surface, Shape and Form **Credits: (3)**
- ART 2420B - Vector Drawing **Credits: (1)**
- ART 2420C - Digital Page Composition **Credits: (1)**
- ART 2420D - Design for the Internet **Credits: (1)**

## Track Courses Required (12 credit hours)

*Complete the courses for one of the following tracks*

### Web Design Track

- ART 2430 - Introduction to Graphic Design **Credits: (3)**
- ART 3430 - Typography and Publication Design **Credits: (3)**
- ART 3445 - Web Design for Visual Arts **Credits: (3)**
- ART 4440 - Interaction Design **Credits: (3)**

### Gaming Track

- ART 2430 - Introduction to Graphic Design **Credits: (3)**
- ART 3460 - Illustration **Credits: (3)**
- ART 4420 - Advanced Digital Media **Credits: (3)**
- ART 4440 - Interaction Design **Credits: (3)**

## Photography Minor

- **Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 24 credit hours.

## Course Requirements for Minor

### Required Courses (12 credit hours)

- ART 1040 - Orientation to Visual Studies **Credits: (3)**
- ART 2250 - Foundations of Photography: Black & White/Analog **Credits: (3)**
- ART 2450 - Foundations of Photography: Color/Digital **Credits: (3)**
- ART 3150 - Photography Seminar **Credits: (3)**

### Electives (12 credit hours minimum)

*Select a minimum of 12 credit hours from the following*

- ART 3550 - Photography: View Camera Techniques **Credits: (3)**
- ART 4150 - Photography: Alternative Processes **Credits: (3)**
- ART 4550 - Photography: Studio Lighting **Credits: (3)**
- ART 4660 - Special Topics in Photography **Credits: (3)**
- ART 4750 - Experimental Photography **Credits: (3)**
- ARTH 3950 - Photography: History, Theory and Criticism **Credits: (4)**

### Note:

*Courses which satisfy major requirements cannot also satisfy minor requirements. Substitutions must be made for the Art Major student minoring in Photography. Consult with the Department of Visual Arts Chair.*

# BFA Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## John B. Goddard School of Business & Economics

### **Dr. Jeff Steagall, Dean**

The John B. Goddard School of Business & Economics is a leader in preparing students for careers in business. The Goddard School attracts students from across the nation and around the world who desire a quality education.

Nearly 2000 students are enrolled in undergraduate programs in accounting, finance, business administration [with an emphasis in human resource management], marketing, economics, supply chain management, and management information systems; and more than 240 students pursue degrees in the Master of Accounting and Master of Taxation programs, as well as the Master of Business Administration program. Students should note that the Goddard School is accredited by the Association to Advance Collegiate Schools of Business (AACSB) International, the premier global accrediting agency in business and accounting education.

Courses are designed to reflect the rapidly changing business environment. Dedicated faculty use innovative teaching and learning methods throughout the curriculum. The consequences of the global economic environment and international competitive advantage are addressed at the onset of the curriculum and discussed throughout the program. The key issues of technology, quality management, ethics, and entrepreneurship are discussed in many contexts.

A unique feature in the curriculum is the endowed Ralph Nye Lecture Series. In this Series, business leaders visit Weber State University campus to serve as guest lecturers. A wide variety of speakers include executives who have risen to the top of corporate worlds, entrepreneurs who have nurtured an idea into a viable business, and authors and opinion leaders with special insight into the business environment. These speakers make an invaluable contribution to our educational programs.

**Dean:** Dr. Jeff Steagall

**Location:** Wattis Building, Room 201

**Telephone Contact:** Mary Ann Boles 801-626-7307

**Associate Dean:** Prof. Eric Smith

**Location:** Wattis Building, Room 201

**Telephone Contact:** Mary Ann Boles 801-626-7307

**Coordinator of Academic Advisement:** 801-626-6534

**Academic Advisors:** Eric Hunter 801-626-6534 and Alex Muller 801-626-6534

**Location:** Wattis Building, Room 211A, B, or C

**Director of Career Services:** Brett Merrell 801-626-7914

**Location:** Wattis Building, Room 213

## **Department Chairs/Directors**

Accounting and Taxation: Dr. David Malone 801-626-8802

Business Administration and Marketing: Dr. David Read 801-626-6380

Supply Chain & Management Information Systems: Dr. Seokwoo Song 801-626-6462

Economics: Dr. Brandon Koford 801-626-6013

## **Graduate Program Directors**

MAcc/MTax Programs: Prof. Ryan Pace 801-626-7562

MBA Program: Dr. Matt Mouritsen 801-626-8151

## **Goddard Business Centers Directors**

Jerry & Vickie Moyes Center for Supply Chain Excellence: Dr. Stan Fawcett 801-626-6258

Center for Tax Education & Research: Prof. Ryan Pace 801-626-7562

Center for Leadership in Corporate Social Responsibility: Dr. AmyDee Fawcett 801-626-6111

Hall Global Entrepreneurship Center: Mr. Brandon Stoddard 801-626-7205

## **John B. Goddard School of Business & Economics Mission Statement**

### **Mission**

The Goddard School serves our communities by delivering an engaging learning environment, conducting valuable research and performing meaningful service.

### Learning

Through close and scholarly interaction, we inspire students to reach their potential as productive and responsible members of society. Within the context of a regional, open enrollment university with a large number of non-traditional and working students, our degree programs provide students with the foundation for success in a global economy.

### **Research**

We create and disseminate practical, theoretical and pedagogical knowledge in an environment of freedom of academic expression and strong institutional support.

### **Community**

We enhance our community via the creation of strategic relationships that expand opportunities for our stakeholders.

### **Distinguishing Values**

#### **Student-Driven**

Our academic programs prepare students with knowledge and skills that are valued in business and society.

### **Scholarly Relevance**

Our faculty develop and disseminate research for our communities.

### **Service that Builds**

We contribute time and expertise to our campus, professional and local communities.

### **Culture and Quality**

We have an innovative and entrepreneurial culture with a commitment to continuous improvement focused on the transformation of students.

## **Accessibility to Business & Economics Courses**

### **Courses**

All 1000 and 2000 level courses are open to all WSU students. Students of any major may find several upper division courses of interest, although prerequisites must be met for all Goddard School courses. The following courses are open to all students:

- BSAD 3000 - Small Business Management **Credits: (3)**
- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- BSAD 4620 - Executive Lectures **Credits: (1)**
- FIN 3200 - Financial Management **Credits: (3)**
- FIN 3400 - Real Estate Principles and Practices **Credits: (3)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MGMT 3200 - Managerial Communications **Credits: (3)**
- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- MGMT 4400 - Advanced Organizational Behavior **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**
- MKTG 3100 - Consumer Behavior **Credits: (3)**
- MKTG 3200 - Selling and Sales Management **Credits: (3)**
- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**
- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)**

## **Baccalaureate Degree Requirements**

Candidates for a bachelor of science degree in the John B. Goddard School of Business & Economics (Goddard School) must satisfy the following requirements:

### **General Requirements**

- WSU Degree Requirements
- Weber State University General Education Requirements

## **John B. Goddard School of Business & Economics Requirements**

### **The Curriculum**

The program of study within the John B. Goddard School of Business & Economics is designed to assist the students from admission to career placement. All degree programs within the Goddard School follow the same general pattern which is composed of five required elements: Liberal Support Curriculum, Business Foundations, Admission and Major Declaration, Business Core, and Major Discipline.

## **Liberal Support Curriculum**

The Liberal Support Curriculum consists of courses outside the John B. Goddard School of Business & Economics which provide critical skills and information useful to all business students. Students should complete the Liberal Support Curriculum as soon as possible because the knowledge attained in these courses will be used throughout the business curriculum. The specific courses in the Liberal Support Curriculum are:

### Liberal Support Curriculum (10 credit hours)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** (Choose 3 credits)
- MATH 1050 QL - College Algebra **Credits: (4)**

#### **Note:**

*ENGL 2010 and MATH 1050 must be completed with a grade of "C" or higher and may not be taken on a CR/NC basis.*

Courses required in the Liberal Support Curriculum for Goddard School majors may be used to satisfy specific university and general education requirements.

*MATH 1050 is a prerequisite for ECON 2010, QUAN 2400, and QUAN 2600. Students seeking a degree within the Goddard School of Business & Economics should plan to take the necessary mathematics courses as early as possible in their program of study.*

## **Business Foundations**

The Business Foundations Curriculum provides the base for all business and economic degree programs and should be completed early in the student's academic studies. To satisfy the Business Foundations requirement, courses must be completed with a grade of "C-" or higher. However, admittance to the Goddard School requires a cumulative GPA of 2.5 or higher for the six Business Foundation courses.

### Business Foundations Curriculum (16 credit hours)

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**

## **Admission and Major Declaration**

See the Admissions and Advisement sections in the John B. Goddard School of Business & Economics for additional information. Students intending to pursue a Bachelor of Science or Associate of Science from the John B. Goddard School of Business & Economics must take the appropriate assessment course listed below. Students wishing to minor in Accounting or Economics must also take the appropriate assessment course. Other minors and certificates don't require any assessment course.

- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)** or
- ECON 2899 - Economics Foundations and Admission Assessment **Credits: (0)** (*for non-business Economics majors only*)

### Additional Information:

Students should register for this course concurrent with (same semester as) or after their last required Business Foundations Course.

Each major discipline within the Goddard School designates different course work. Consult the Degrees/Programs listing for the Major course work required in Accounting, Finance, Business Administration [with an emphasis in Human Resource Management], Marketing, Management Information Systems, Supply Chain Management, and Economics. Generally, students should begin taking courses within their major area *before* completing all of the courses in the Business Core. Department degree maps will assist students in course sequencing.

### **Business Core**

The Business Core exposes students to the traditional areas of business and provides the competencies needed to analyze problems and interact with individuals from different units of an organization.

#### Business Core (37-38 credit hours)

- QUAN 2400 - Business Calculus **Credits: (3)**
- QUAN 3610 - Business Statistics II **Credits: (3)**
- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- BSAD 3330 - Business Ethics & Environmental Responsibility **Credits: (3)**
- FIN 3200 - Financial Management **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- BSAD 4620 - Executive Lectures **Credits: (1)**
- BSAD 4780 - Strategic Management **Credits: (3) \***

#### **Note:**

*\*BSAD 4780 should be taken near the conclusion of the program of study.*

#### One of the following International courses:

- ACTG 4140 - Accounting for Global and Complex Entities **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- MIS 3710 - Global Issues in Information Technology **Credits: (3)**
- MGMT 3400 - International Business **Credits: (3)**
- MKTG 3600 - International Marketing **Credits: (3)**
- SCM 4400 - Global Supply Chain Management **Credits: (3)**

One of the following Communications courses:

- MGMT 3200 - Managerial Communications **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)** or
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**

or

- ECON 4970 - Introduction to Research Methods **Credits: (1)** and
- ECON 4980 - Research Methods **Credits: (3)**

**Note:**

ENGL 3750 - Business, Economics and Literature: From Wages to Wal-Mart, and Wall Street to Wattsmart: Poverty, Wealth, and Consumption in Literature can be taken to complete the business communication requirement in place of the above options.

Additional Information:

Everyone working in business needs a knowledge of these areas. Students should take course work within the Business Core as they are completing the courses within the Major Discipline. Many of the courses in the Business Core are prerequisites for other classes. Keeping this in mind and using department degree maps will assist students in course sequencing.

### **Graduation Requirements**

1. **GPA Requirement:** Candidates for Goddard School minors, associate degrees, and bachelor of science degrees must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, Goddard School (major) GPA, and the overall university GPA must be 2.5 or higher.
2. **Residency Requirement:** Any student wishing to attain a certificate, minor, associate's degree, or bachelor's degree from the Goddard School must satisfactorily complete 50 percent of the total required course work and 60 percent of the upper-division requirements from the Goddard School. Furthermore, any transferred credit must be approved prior to beginning the program of study.  
Any student pursuing a graduate degree from the Goddard School may apply a maximum of 6 credit hours of graduate credit taken at other AACSB International accredited institutions and completed with a grade of B- or better to the Goddard School's graduate degree requirements. Furthermore, the transferred credit must be approved prior to beginning the program of study. All candidates for degrees must be registered at WSU at least one semester following the last commencement prior to graduation.

### **Admissions**

Students intending to pursue a Bachelor of Science, Associate of Science, or minors in Accounting or Economics from the John B. Goddard School of Business & Economics must be formally admitted.

Criteria for admittance to the Goddard School:

- Formal admission to Weber State University (WSU)
- Successful completion of ENGL 2010 and MATH 1050 (or their equivalent) with a "C" grade or higher
- Successful completion ("C-" grade or higher) of Business Foundations with a 2.5 or higher cumulative GPA for the six foundation courses
- Successful completion of assessment course: BSAD 2899 or ECON 2899 (*for non-business Economics majors only*)
- Overall cumulative GPA of 2.5 or higher
- Declaration of business major, minor, emphasis or certificate

Process for admittance to the Goddard School:

1. Register for BSAD 2899 or ECON 2899 (for non-business Economics majors only) concurrent with (same semester as) or after final required Business Foundations Course. Course objectives are:
  1. Complete assessment of Business Foundations
  2. Complete online application which includes:
    - Goddard School application student information
    - Essay as described on the Goddard School application
    - Accepting to abide by the Goddard School Honor Code

*A grade of CR (credit) for 2899 equates to being admitted to the Goddard School.*

*Transcripts need not be submitted unless the student is notified by the Goddard School.*

2. Await Notification Letter from Goddard School Admissions Committee

### **Advisement**

John B. Goddard School of Business & Economics majors are strongly encouraged to pursue advising opportunities in the Goddard School. Receiving timely advisement at critical junctures in an academic program will assist students in choosing the appropriate classes, in the appropriate sequence, and in preparing for employment opportunities. Advising for:

- transfer credits, general education, business foundation courses, admission into the Goddard School, major selection, major requirements, minors, second degrees, and certificates is provided by the Goddard School Coordinator of Academic Advisement, WB 211A, (801) 626-6534 and the Goddard School Academic Advisors, Alex Muller, WB 211B, (801) 626-6534 and Eric Hunter, WB 211C, (801) 626-6534;
- major declaration is provided by the Goddard School Advising Center, WB 211 A, B, or C or (801) 626-6534;
- major selection, employment preparation, including internships and resumes, and business etiquette is provided by the Goddard School Career Center, Brett Merrell, WB 213, (801) 626-7914.

### **Credit Policy**

1. **Obsolete Credit:** John B. Goddard School of Business & Economics credits and certain MATH courses (MATH 1050, 1080, or 1210) earned more than ten (10) years earlier than the proposed date of graduation will not be accepted toward University or major requirements unless validated through a challenge examination or approved by the appropriate academic department chair.
2. **Waiver Requests:** Any exceptions to the printed Goddard School graduation requirements must be approved by the appropriate academic department chair prior to waiving, substituting, or taking the course(s) in question.

### **Transfer Credit Policy**

1. Transfer students should submit transcripts from all institutions of higher education to the Weber State University Admissions office. Student Recruitment at (801) 626-6050 will consult with Admissions to determine which general education credits will be accepted by Weber State. Most courses with a grade of "C-" or higher are eligible for credit. However, some courses, such as the General Education MATH and ENGL Core requirements, may require a higher grade.
2. Students should establish transfer of general education work prior to meeting with the John B. Goddard School of Business & Economics Advisement Center. The Advising Center will consult with Goddard School academic departments to determine credit toward specific Goddard School requirements and address further transfer issues.
3. The Utah System of Higher Education (USHE) Transfer Credit Guide has been established to indicate articulation of equivalent courses between the in-state public colleges and universities. Credits from business courses transferred from institutions not covered by the USHE Transfer Credit Guide are accepted only if approved by the appropriate Goddard School academic departments. Documentation which allows the Advising Center and department chairs to assess the content of courses taken may be required. This documentation may include: catalogs or bulletins; course outlines or syllabi; and transcripts. In the majority of cases, course credit

which is not obsolete (see above) taken at institutions accredited by AACSB International will be accepted and applied to the Goddard School's graduation requirements.

4. The Goddard School may require validation for courses taken at other institutions before credit is applied to Goddard School requirements. This validation may consist of either: passing a challenge exam; or completing the next course in a related sequence with a grade of "C" or better. Validation may be required where upper division credit is sought for lower division course work taken at another institution.
5. Students are reminded that the Weber State catalog states, "Acceptance of credit should not be confused with its application. Transfer credit may or may not apply to Weber State's graduation requirements, regardless of the number of credits transferred. Credit other than that intended wholly to meet general education requirements, will be applied to Weber State's specific degree program requirements upon the recommendation of the appropriate department chair." This means credit that is accepted by Weber State may, or may not, apply to specific requirements within the Goddard School.
6. Students transferring credits from institutions outside the U.S. should follow the guidelines for International Students. Transfer credits should appear on the student's WSU transcript before meeting with the Goddard School Advising Center or major department chair.

### **Jerry & Vickie Moyes Center for Supply Chain Excellence**

The Jerry & Vickie Moyes Center for Supply Chain Excellence provides outstanding educational and professional development opportunities for the Weber State Community. For instance, the Center sponsors a broad range of experiential learning activities including case competitions, international study abroad tours, field consulting studies, and mentored-student-led research. The Center also works closely with the business community to advance supply chain thinking and practice, offering development seminars on the "Whole-Brain Supply Chain". Finally, the Center funds research in the areas of supply chain collaboration, process improvement, risk, and sustainability. The Center is located in room 205 of the E.O. Wattis Business Building.

### **Center for Tax Education & Research**

The primary mission of the Center for Tax Education & Research is to provide high quality tax education to WSU students, interested members of the community and business professionals. The Center also actively supports tax research efforts by tax faculty, works with employers to supply jobs to Master of Taxation graduates, fosters relationships with alumni, and supports student recruiting efforts. Additionally, the Center offers continuing education programs to tax professionals and engages in other tax-related activities such as providing tax return preparation assistance to qualifying members of the public at no cost through the Volunteer Income Tax Assistance (VITA) program, hosting student tax competitions, and organizing seminars to discuss contemporary issues in taxation.

### **Center for Leadership in Corporate Social Responsibility**

The Center for Leadership in Corporate Social Responsibility is an action-research center within John B. Goddard School of Business & Economics. We work closely with academia, business, partner organizations, and students to understand and promote socially responsible decision-making and research across the 3Ps (People, Planet, Profit). The Center will inspire students and leaders to engage fully with all of the dimensions of socially responsible decision-making in the workplace.

### **Hall Global Entrepreneurship Center**

The Hall Global Entrepreneurship Center offers a wide-range of opportunities to motivate, inspire, and provide unique resources to help students achieve their dream of starting a business, or increase their creativity and develop an entrepreneurial mindset, which is highly sought after by today's employers. Entrepreneurship students can qualify for up to \$15,000 in seed funding to help launch a new business. Each year, our center also offers several full-tuition scholarships and nearly \$40,000 in prize money from our various business competitions. Students can also attend our lecture series each semester and learn first-hand about the unique challenges and successes from inspirational, local entrepreneurs.

## Bill Child Start-Up Center

The Bill Child Start-Up Center provides entrepreneurship students with a comfortable, collaborative space in which to work on their fledgling businesses. The Center also hosts activities for student clubs, such as the Weber Entrepreneurs Association (WEA), and the Young Automotive Entrepreneurship Lecture Series. Each week, Entrepreneurs-in-Residence hold office hours so that students can talk about their start-ups with entrepreneurs, angel investors, venture capitalists, startup lawyers and other key professionals. The Center is located in room 203 of the E.O. Wattis Building.

## International Programs

The John B. Goddard School of Business & Economics offers a number of curricular programs and study opportunities designed to enhance the global expertise of our students.

- The John B. Goddard School of Business & Economics regularly offers study abroad programs to Asia and Europe.
- The Goddard School has signed cooperative agreements with the University of Applied Science - Hof, Germany, the European Business School in Paris, France, Shanghai Normal University, China, and University of Seoul, Korea. Under the terms of these agreements, our students can enroll at these partner institutions without any additional tuition charge. The same privilege is extended to students from partner institutions who enroll at WSU. The partner institutions are located in:
  - China and Korea
  - Austria, France, Germany, Poland, Spain, Turkey, and the United Kingdom
- The Goddard School has become a member of the TransAtlantic Business School Alliance (TABSA). TABSA unites four U.S. and four European Universities that are working to share cultural and educational experiences with students across geographic boundaries. Under the terms of the agreements, our students can study abroad at one of four European Universities for two years, after completing two years at the Goddard School, to achieve double Bachelor degrees from both WSU and the selected European University.
- The Goddard School offers an International Certificate which may be awarded with a baccalaureate degree offered by the School. This program is described below.

# International Business & Economics Certificate of Proficiency

A student graduating with a Bachelor's Degree in Business or Economics may apply for a certificate of competency in International Business & Economics provided he or she has fulfilled the following criteria:

## Course Requirements for Institutional Certificate of Proficiency

*Completion of a program of study approved by the International Program Advisor. This will entail a minimum of 12 credit hours of course work at a GPA of at least 2.5 from the following list of courses:*

- ACTG 4801 - Individual Study **Credits: (1, 2, 3)**
- ACTG 4802 - Individual Study **Credits: (1, 2, 3)**
- ACTG 4803 - Individual Study **Credits: (1, 2, 3)**
- ACTG 4810 - Experimental Courses **Credits: (1-3)**
- ACTG 4140 - Accounting for Global and Complex Entities **Credits: (3)**
- BSAD 3600 - [World Region] Business and Society **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**

- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- MIS 3710 - Global Issues in Information Technology **Credits: (3)**
- MIS 4801 - Individual Projects **Credits: (1)**
- MIS 4802 - Individual Projects **Credits: (2)**
- MIS 4803 - Individual Projects **Credits: (3)**
- MIS 4810 - Experimental Courses **Credits: (1-3)**
- MGMT 3400 - International Business **Credits: (3)**
- MGMT 3550 - The Cultural Environment of International Business **Credits: (3)**
- MGMT 4800 - Independent Research **Credits: (1-3)**
- MGMT 4810 - Experimental Courses **Credits: (1-3)**
- MKTG 3600 - International Marketing **Credits: (3)**
- SCM 4400 - Global Supply Chain Management **Credits: (3)**

## **International Business & Economics Certificate of Proficiency Language Emphasis**

A student graduating with a Bachelor's Degree in Business or Economics may apply for a certificate of proficiency in International Business & Economics (Language Emphasis) provided he or she has fulfilled the following criteria:

1. Satisfaction of the requirements for the Certificate in International Business (see International Business & Economics Certificate of Proficiency).
2. Testing at the "Intermediate High" level, or better, on the ACTFL (American Council on Teaching of Foreign Languages) exam, or the departmental language proficiency test, in the chosen language.
3. Completion of the appropriate language for business sequence (2 courses). If the chosen language has only one language for business course, completion of a substitute course approved by the Department of Foreign Languages.
4. Completion of FL 3550 - Cultural Heritage I for the chosen language.

## **Master of Business Administration Program (MBA)**

**MBA Program Director:** Matt Mouritsen, 801-626-8151

**MBA Enrollment Director:** Andrew Wright, 801-395-3528

**MBA Department Administrative Specialist:** Sally Taylor 801-395-3519

**Location:** Davis Campus - 2750 University Park Blvd., Layton

The Master of Business Administration program is intended for working adults who wish to advance in their careers. The MBA program is designed to enhance general management abilities and provides an opportunity to further develop functional business skills. Our general management graduate curriculum consists of "hybrid courses" that combine traditional classroom instruction with online educational tools.

In addition to the MBA, the following Graduate Certificates are offered:

- Aerospace Management
- Contract Management in Business
- Sustainability for Business
- Management Information Systems: Information Assurance

# Aerospace Management Graduate Certificate

**MBA Program Director:** Matt Mouritsen, 801-626-8151

**MBA Enrollment Director:** Andrew Wright, 801-395-3528

**MBA Department Administrative Specialist:** Sally Taylor 801-395-3519

**Location:** Davis Campus - 2750 University Park Blvd., Layton

## Gainful Employment Disclosure

Students earning a Graduate Certificate in Aerospace Management will become knowledgeable about strategic management, continuous process improvement, program management, supply chain management, and contract management in an aerospace context.

This graduate certificate can be completed as a part of the WSU MBA Program in the Goddard School of Business and Economics or as a stand-alone certificate. The certificate will be awarded upon completion of four graduate-level elective courses (12 credit hours) in the MBA Program. The courses will be offered in a hybrid delivery format with eight weeks of face-to-face interaction enhanced by online discussions and learning activities.

- **Program Prerequisite:** Applicants must possess a bachelor's degree from a regionally accredited institution or be in the final stage of completing the undergraduate degree. Completion of a course in college algebra or equivalent is required to enroll in MBA courses. Basic computer competency is also required.
- **Grade Requirements:** Students must complete all MBA program courses with a grade of "C" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hour Requirements:** Twelve credit hours of MBA courses. Some prerequisites may need to be completed prior to enrollment in MBA 6150 - Operations/Supply Chain Management.

## Courses Required for Graduate Certificate

### Required Courses

- MBA 6150 - Operations/Supply Chain Management **Credits: (3)**
- MBA 6370 - CPI & Strategy in Aerospace Management **Credits: (3)**
- MBA 6360 - Aerospace Program Management **Credits: (3)**
- MBA 6740 - Principles of Contract Management **Credits: (3)**

# Contract Management in Business Graduate Certificate

**MBA Program Director:** Matt Mouritsen, 801-626-8151

**MBA Enrollment Director:** Andrew Wright, 801-395-3528

**MBA Department Administrative Specialist:** Sally Taylor 801-395-3519

**Location:** Davis Campus - 2750 University Park Blvd., Layton

## Gainful Employment Disclosure

Students earning a Graduate Certificate in Contract Management in Business will become knowledgeable about the practice of contract management in the federal and commercial environment and gain experience in planning, organizing and managing contracts.

The certificate can be completed as a part of the WSU MBA Program in the Goddard School of Business and Economics or as a stand-alone certificate. The courses will be offered in a hybrid delivery format with eight weeks of face-to-face interaction enhanced by online discussions and learning activities.

- **Program Prerequisite:** Applicants must possess a bachelor's degree from a regionally accredited institution or be in the final stage of completing the undergraduate degree. Completion of a course in college algebra or equivalent is required to enroll in MBA courses. Basic computer competency is also required.
- **Grade Requirements:** Students must complete all MBA program courses with a grade of "C" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hours Requirements:** Twelve credit hours of MBA elective courses.

## Courses Required for Graduate Certificate

### Required Courses

- MBA 6740 - Principles of Contract Management **Credits: (3)**
- MBA 6750 - Financial Aspects of Contract Management **Credits: (3)**
- MBA 6760 - Legal Aspects of Contract Management **Credits: (3)**

### Elective Courses

Select one of the following:

- MBA 6540 - Negotiations **Credits: (3)**  
*or*
- MBA 6580 - Project Management **Credits: (3)**

## Management Information Systems: Information Assurance Graduate Certificate

**MBA Program Director:** Matt Mouritsen, 801-626-8151

**MBA Enrollment Director:** Andrew Wright, 801-395-3528

**MBA Department Administrative Specialist:** Sally Taylor 801-395-3519

**Location:** Davis Campus - 2750 University Park Blvd., Layton

### Gainful Employment Disclosure

The Graduate Certificate in Management Information Systems / Information Assurance is designed to provide business professionals with the conceptual tools and language to more effectively deploy information technology and enhance organizational performance.

The certificate can be completed as a part of the WSU MBA Program in the Goddard School of Business and Economics or as a stand-alone certificate. The courses will be offered in a hybrid delivery format with eight weeks of face-to-face interaction enhanced by online discussions and learning activities.

- **Program Prerequisite:** Applicants must possess a bachelor's degree from a regionally accredited institution or be in the final stage of completing the undergraduate degree. Completion of a course in college algebra or equivalent is required to enroll in MBA courses. Basic computer competency is also required.
- **Grade Requirements:** Students must complete all MBA program courses with a grade of "C" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hours Requirements:** Thirteen credit hours of MBA courses.

## Courses Required for Graduate Certificate

### Required Courses

- MBA 6310 - Information Technology in the Enterprise **Credits: (3)**
- MBA 6640 - Information Assurance in the Enterprise **Credits: (3)**
- MBA 6800 - Directed Study **Credits: (1-3)**

### Elective Courses

Two of the following

- MBA 6160 - Applications of Decision Models **Credits: (3)**
- MBA 6530 - E-Business **Credits: (3)**
- MBA 6630 - Networking & Information Systems **Credits: (3)**
- MACC 6570 - Information Systems Auditing **Credits: (3)**

## Sustainability for Business Graduate Certificate

**MBA Program Director:** Matt Mouritsen, 801-626-8151

**MBA Enrollment Director:** Andrew Wright, 801-395-3528

**MBA Department Administrative Specialist:** Sally Taylor 801-395-3519

**Location:** Davis Campus - 2750 University Park Blvd., Layton

### Gainful Employment Disclosure

The Graduate Certificate in Sustainability for Business is designed for graduate students to explore and evaluate how business organizations can address sustainability issues to meet societal needs and create competitive advantages. Students must complete four courses (minimum of 12 credit hours) of existing MBA elective courses in environmental sustainability in order to be awarded the Graduate Certificate in Sustainability for Business. The certificate can be completed along with the MBA Degree at the Goddard School of Business and Economics or as a stand-alone certificate.

- **Program Prerequisite:** Applicants must possess a bachelor's degree from a regionally accredited institution or be in the final stage of completing the undergraduate degree. Completion of a course in college algebra or equivalent is required to enroll in MBA courses. Basic computer competency is also required.
- **Grade Requirements:** Students must complete all MBA program courses with a grade of "C" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hour Requirements:** Twelve credit hours of existing MBA elective courses in environmental sustainability.

## Courses Required for Graduate Certificate

- MBA 6700 - Managing for Sustainability **Credits: (3)**
- MBA 6715 - Sustainability Tools and Methods **Credits: (3)**
- MBA 6720 - Business, Economics, and the Environment **Credits: (3)**

### Elective Courses for the Graduate Certificate

- MBA 6730 - Consulting Project in Sustainability **Credits: (3)** Or
- Any approved MBA course **Credits (3)** And

- **MBA 6800 - Directed Study Credits: (1-3)**  
*(The subject of the directed study should build upon sustainability topics related to the approved MBA class)*

## Master of Business Administration (MBA)

- **Program Prerequisite:** Applicants must have earned a bachelor's degree from a regionally accredited institution (or international equivalent) or be in the final stage of completing the undergraduate degree. If proof of completion of the bachelor's degree has not been received prior to the start of an admitted student's first semester in the MBA Program, they will not be allowed to start classes in the program until an official transcript with the posted bachelor's degree has been received by the MBA Program office. Completion of a course in college algebra or equivalent is required to enroll in MBA courses. Basic computer competency is also required.
- **Grade Requirements:** To earn the MBA degree, candidates must complete all MBA program courses with a grade of "C" or higher. In addition, the overall cumulative MBA Program GPA must be 3.0 or higher, excluding transfer credits from other WSU graduate programs or other institutions. An elective course in which a grade lower than "C" is earned may be repeated or another elective may be taken in its place. Failure to maintain a 3.0 grade point average after two consecutive semesters, will result in academic probation in accordance with departmental policies. Students must meet with their academic advisor after notification of academic probation. Two consecutive semesters of academic probation will result in suspension from the program. A waiver of suspension will be considered according to due process.
- **Credit Hour Requirements:** The MBA degree ordinarily requires a minimum of 36 semester hours of graduate work for persons with a recent undergraduate business degree from an AACSB-accredited business school. Individuals with business undergraduate degrees from non-AACSB-accredited schools may be required to complete additional foundations course work contingent on departmental analysis of their undergraduate transcripts. For persons with a non-business undergraduate degree, the program typically requires 54 semester hours, including foundations or leveling courses. Exemptions from foundations courses may be made based on equivalent undergraduate coursework. Specific program and course requirements are shown below.

### Major Field Exemption

Students with business-related undergraduate degrees are exempted from the required MBA course in their major field of study (e.g. accounting, finance, economics, information systems, marketing, management, supply chain management, human resources) and will take an additional elective MBA course in its place.

The MBA Program Office must approve each MBA student's plan of study. The plan of study will show all courses necessary to meet the degree requirements. A formal plan of study will be filed when a student is accepted into the program.

If students deviate from their program of study without PRIOR written and documented departmental approval, those courses will NOT be counted toward graduation. Taking unapproved courses will be a costly and time intensive mistake. If you are in doubt about a course, please call or email the office and make an appointment with your advisor BEFORE starting the class.

### Non-MBA Electives

Qualified students may take up to two MACC (Master of Accounting), MHA (Master of Health Administration), or MTAX (Master of Taxation) courses as MBA electives, counting six credit hours toward their MBA elective requirements. Four MHA courses may be counted towards MBA elective requirements for dual MBA-MHA degree students. Please contact the department to assure you meet pre-requisites for your desired elective and for assistance in getting an over ride in order to add the class to your schedule.

Qualified graduate students currently accepted into other Weber State University grad programs may cross over and take classes from the MBA. Students must meet all pre-requisites for any MBA class they may choose. An email from your

graduate advisor stating that they will accept the MBA class as an elective into your program is required. Have them email [staylor13@weber.edu](mailto:staylor13@weber.edu) requesting the course with the student's W number. An over ride to register will be placed in Banner and the student notified that they can add the class to their schedule.

### **Transfer Credits/Residency Requirements**

The minimum residency requirements for the Goddard School MBA Program is two-thirds of the required number of credit hours for undergraduate business majors (the 36-hour track) and for non-business majors (the 54-hour track). Students who have completed business-related graduate course work at another AACSB-accredited institution prior to admission to the program may apply for transfer of graduate credits to satisfy their Goddard School MBA program of study, the number of transfer credits not to exceed the minimum residency requirements for the 36-hour or 54-hour program tracks (see above). Once admitted to the program, students may transfer only elective credits into the program from another AACSB-accredited institution. Required course credits may be accepted in transfer from another institution after admission to the Goddard School MBA Program only in circumstances where the student is unable to complete all required courses in residence due to relocation. All transfers are subject to program approval.

### **Time to Degree Completion**

MBA students have a maximum of six calendar years to complete their degree completion requirements, starting from the first semester during which the student has registered for and begun taking classes. Students who exceed this requirement may submit a letter of appeal to the MBA Program Director to request that this requirement be waived. Students who fail to enroll in MBA courses for more than six years must apply for readmission to the program.

### **Admission Requirements**

In addition to the program prerequisites specified above, the primary criteria in determining eligibility for admission to the Goddard School MBA Program are: previous academic achievement, performance on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE), and other factors such as work experience and career progression. The ideal applicant will present a strong overall previous academic record, strong letters of recommendation, and an above average total GMAT/GRE score, including high achievement on the verbal, quantitative, and analytical writing assessments.

Applicants are exempt from the GMAT/GRE requirement under the following circumstances:

- if you have successfully completed one semester of college algebra AND;
- if you have previously earned a graduate degree from a regionally-accredited university (or international equivalent) OR;
- if your undergraduate GPA and relevant career experience match the following criteria:
  - 3.5+ GPA and 5+ years of relevant post-undergraduate career experience
  - 3.0 - 3.5 GPA and 10+ years of relevant post-undergraduate career experience

Applicants must submit a completed application form and current resume, as well as transcripts from every institution of higher education attended. Letters of recommendation from appropriate professional and/or academic references are also required. Each applicant is considered on an individual basis. The MBA program will have limited enrollment. Any applicant who is admitted while other courses or programs are still in process of completion is admitted conditionally.

### **Additional Admission Requirements for International Students:**

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL) which is not more than two years old and on which a minimum score of 550 (paper-based) or 213 (computer-based) or 80 internet based has been earned. Equivalent IELTS score also accepted in place of TOEFL.

In addition to a TOEFL or IELTS score, all applicants educated outside the U.S. must submit transcripts that have been evaluated by a WSU approved foreign credentials evaluation service. For a list of approved agencies, click here: <http://www.weber.edu/issc/credentials.html>

A translated transcript is not accepted. Transcripts must be evaluated on a course-by-course format, showing U.S. semester credit and grade equivalent for each course based on a 4.0 GPA scale.

Students participating in WSU approved "Exchange Programs" within the Goddard School of Business and Economics must meet the following requirements:

1. Partner school must nominate student
2. Provide evidence of English proficiency by a TOEFL or IELTS score as indicated above
3. Meet all application and visa requirements as established by the International Students office. More information is available at this link: <http://www.weber.edu/issc>

## **MBA Program Requirements for Students with a Non-Business Undergraduate Degree**

### Foundations (15 credit hours)

*Prerequisites: Admission to MBA program and college algebra or equivalent.*

- MBA 6010 - Legal and Regulatory Environment of Business **Credits: (3)**
- MBA 6020 - Financial and Managerial Accounting **Credits: (3)**
- MBA 6040 - Managerial Economics **Credits: (3)**
- MBA 6050 - Quantitative Methods I **Credits: (3)**
- MBA 6051 - Quantitative Methods II **Credits: (3)**

### Other Required Courses (24 credit hours)

- MBA 6110 - Tools for the Ethical Manager **Credits: (3)**
- MBA 6120 - Organizational Behavior **Credits: (3)**
- MBA 6130 - Financial Management **Credits: (3)**
- MBA 6140 - Marketing Management **Credits: (3)**
- MBA 6150 - Operations/Supply Chain Management **Credits: (3)**
- MBA 6210 - Management Accounting and Control **Credits: (3)**
- MBA 6310 - Information Technology in the Enterprise **Credits: (3)**
- MBA 6410 - Global Macroeconomic Conditions **Credits: (3)**

### Electives (select 12 credit hours)

- MBA 6160 - Applications of Decision Models **Credits: (3)**
- MBA 6170 - Corporate Communications **Credits: (3)**
- MBA 6360 - Aerospace Program Management **Credits: (3)**
- MBA 6370 - CPI & Strategy in Aerospace Management **Credits: (3)**
- MBA 6420 - The Economics of Industry **Credits: (3)**
- MBA 6430 - International Marketing **Credits: (3)**
- MBA 6440 - Strategic Leadership **Credits: (3)**
- MBA 6450 - Leadership Through People Skills **Credits: (3)**
- MBA 6510 - Investment Analysis and Portfolio Management **Credits: (3)**
- MBA 6520 - International Business Field Studies **Credits: (3)**
- MBA 6530 - E-Business **Credits: (3)**

- MBA 6540 - Negotiations **Credits: (3)**
- MBA 6550 - Managing and Improving Quality **Credits: (3)**
- MBA 6560 - Business/Market Planning Using Online Resources **Credits: (3)**
- MBA 6580 - Project Management **Credits: (3)**
- MBA 6590 - Strategic Business Tax Planning **Credits: (3)**
- MBA 6630 - Networking & Information Systems **Credits: (3)**
- MBA 6640 - Information Assurance in the Enterprise **Credits: (3)**
- MBA 6680 - Graduate Consulting Project **Credits: (3)**
- MBA 6700 - Managing for Sustainability **Credits: (3)**
- MBA 6710 - Accounting and Finance for Environmental Sustainability **Credits: (3)**
- MBA 6720 - Business, Economics, and the Environment **Credits: (3)**
- MBA 6730 - Consulting Project in Sustainability **Credits: (3) \***
- MBA 6740 - Principles of Contract Management **Credits: (3)**
- MBA 6760 - Legal Aspects of Contract Management **Credits: (3)**
- MBA 6800 - Directed Study **Credits: (1-3)**
- MBA 6850 - Entrepreneurship **Credits: (3)**

Note:

*\* Students may complete either MBA 6680 or MBA 6730, but not both courses.*

Capstone (3 credit hours)

- MBA 6180 - Strategic Management **Credits: (3)**

## **Fast-Track MBA Program Requirements for Students with an Undergraduate Business Degree**

*The Fast-Track MBA program is open only to students who have completed an undergraduate business degree from an AACSB-accredited business school within the past 10 years.*

Required Courses (24 credit hours)

- MBA 6110 - Tools for the Ethical Manager **Credits: (3)**
- MBA 6210 - Management Accounting and Control **Credits: (3)**
- MBA 6120 - Organizational Behavior **Credits: (3)**
- MBA 6130 - Financial Management **Credits: (3)**
- MBA 6140 - Marketing Management **Credits: (3)**
- MBA 6150 - Operations/Supply Chain Management **Credits: (3)**
- MBA 6310 - Information Technology in the Enterprise **Credits: (3)**
- MBA 6410 - Global Macroeconomic Conditions **Credits: (3)**

Electives (select 9 credit hours)

- MBA 6160 - Applications of Decision Models **Credits: (3)**
- MBA 6170 - Corporate Communications **Credits: (3)**
- MBA 6360 - Aerospace Program Management **Credits: (3)**
- MBA 6370 - CPI & Strategy in Aerospace Management **Credits: (3)**
- MBA 6420 - The Economics of Industry **Credits: (3)**
- MBA 6430 - International Marketing **Credits: (3)**

- MBA 6440 - Strategic Leadership **Credits: (3)**
- MBA 6450 - Leadership Through People Skills **Credits: (3)**
- MBA 6510 - Investment Analysis and Portfolio Management **Credits: (3)**
- MBA 6520 - International Business Field Studies **Credits: (3)**
- MBA 6530 - E-Business **Credits: (3)**
- MBA 6540 - Negotiations **Credits: (3)**
- MBA 6550 - Managing and Improving Quality **Credits: (3)**
- MBA 6560 - Business/Market Planning Using Online Resources **Credits: (3)**
- MBA 6580 - Project Management **Credits: (3)**
- MBA 6590 - Strategic Business Tax Planning **Credits: (3)**
- MBA 6630 - Networking & Information Systems **Credits: (3)**
- MBA 6640 - Information Assurance in the Enterprise **Credits: (3)**
- MBA 6680 - Graduate Consulting Project **Credits: (3) \***
- MBA 6700 - Managing for Sustainability **Credits: (3)**
- MBA 6710 - Accounting and Finance for Environmental Sustainability **Credits: (3)**
- MBA 6720 - Business, Economics, and the Environment **Credits: (3)**
- MBA 6730 - Consulting Project in Sustainability **Credits: (3) \***
- MBA 6740 - Principles of Contract Management **Credits: (3)**
- MBA 6750 - Financial Aspects of Contract Management **Credits: (3)**
- MBA 6760 - Legal Aspects of Contract Management **Credits: (3)**
- MBA 6800 - Directed Study **Credits: (1-3)**
- MBA 6850 - Entrepreneurship **Credits: (3)**

Note:

*\* Students may complete either MBA 6680 or MBA 6730, but not both courses.*

Capstone (3 credit hours)

- MBA 6180 - Strategic Management **Credits: (3)**

## Master of Accounting Program (MACC)

**Program Director:** Ryan Pace, 801-626-7562

**Website:** [www.weber.edu/macc](http://www.weber.edu/macc)

An accounting professional in today's environment must possess a high level of technical competence, a sense of commitment to service, communication skills, analytical skills, and the ability to work well with people. To obtain the required body of knowledge and to develop the skills and abilities needed to be successful accounting professionals, serious consideration must be given to study beyond a four-year baccalaureate program. The Master of Accounting (MACC) Program provides an additional year of training for the professional accountant. In addition, the MACC satisfies the requirements of the Utah Certified Public Accountant Licensing Act for those wishing to sit for the Uniform CPA Examination. It gives the students an opportunity to increase the depth of their understanding in key areas and allows a broadening of perspective by providing course work in a variety of areas that cannot be considered in an undergraduate program due to time constraints.

# Master of Accounting (MAcc)

- **Grade Requirements:** A MAcc student must complete all MAcc program courses, including electives, with a grade of "C" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hour Requirements:** The program requires a minimum of 30 semester hours beyond a bachelor's degree in accounting.

## Admissions Requirements

- A four year Bachelor's degree. If the degree is not in Accounting, leveling courses will be required after acceptance into the program.
- An acceptable GMAT score.
- Acceptable grade point average in each of the following three areas:
  1. Overall GPA
  2. The last 60 credit hours of undergraduate work
  3. Accounting course work only

Applicants must submit an online application, GMAT, current resume, and transcripts from every institution of higher education attended. Two letters of recommendation are required. At least one of those letters should come from individuals who can evaluate the applicant's academic abilities. All letters should address the applicant's potential for successful graduate study. Each applicant is considered on an individual basis.

## Additional Admission Requirements for International Students:

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL) or International Language Testing System (IELTS) which is not more than two years old. The TOEFL must have a minimum score of 80 (Internet-Based) and the IELTS must have a minimum of 6.5 with a minimum of 5.0 on each section.

## Application

Application for admission to the Master of Accounting Program should normally be made by August 1 (fall semester), December 1 (spring semester), and April 1 (summer semester) of the year during which admission is sought. Application for admission must include GMAT scores, official undergraduate transcripts, resume, and two letters of recommendation.

It is expected that the Master of Accounting Program will entail approximately two semesters of full-time study for a student with a bachelor's degree in accounting. Students with other business-related degrees can expect to spend about two years in the program. Those with non-business related undergraduate degrees should plan to spend at least three years in the program.

Contact the School of Accounting & Taxation for a separate and detailed bulletin on the Master of Accounting Program.

## Advisement

For questions concerning academic advisement, the primary source of contact will be the Master of Accounting Program Advisor or Director. For issues regarding registration and scheduling, students will contact the School of Accounting & Taxation Administrative Specialist. Career services will be offered through the Goddard School of Business & Economics Career Center.

## Course Requirements for Master of Accounting

All MAcc students are required to complete the following courses (18 credit hours):

- MACC 6120 - Financial Accounting & Reporting **Credits: (3)**
- MACC 6130 - Governmental and Nonprofit Accounting **Credits: (3)**
- MACC 6160 - Financial Statement Analysis **Credits: (3)**
- MACC 6330 - Strategic Management Accounting **Credits: (3)**
- MACC 6560 - Advanced Auditing & Assurance Services **Credits: (3)**
- MACC 6610 - Advanced Accounting Information Systems **Credits: (3)**

And are required to complete one of the following tax courses (3 credit hours):

- MTAX 6400 - Tax Research & Communication **Credits: (3)**
- MTAX 6405 - Accounting for Income Taxes **Credits: (3)**
- MTAX 6430 - Advanced Individual Taxation **Credits: (3)**
- MTAX 6435 - State & Local Taxation/Federal Tax Practice **Credits: (3)**
- MTAX 6460 - Advanced Corporate Taxation **Credits: (3)**
- MTAX 6470 - Advanced Partnership Taxation **Credits: (3)**

In addition to the previously listed courses

*MAcc students are required to complete 9 hours of electives. They may select any other MAcc or MTax courses. Select MBA courses approved by the MAcc program director may also be used up to a maximum of 6 credit hours.*

## Master of Taxation (MTax)

**Program Director:** Ryan Pace, 801-626-7562

**Website:** [www.weber.edu/mtax](http://www.weber.edu/mtax)

The tax laws are vast, complex, and dynamic. Basic tax courses at the undergraduate level do not provide sufficient breadth or depth of coverage for future CPAs and tax consultants. Consequently, instruction at the graduate level is necessary. Tax law is a major branch of accounting. The Master of Taxation degree gives more recognition to a graduate as a tax specialist than does a Master of Accounting degree. The program is designed to provide students with the highly technical and demanding skills necessary to be effective tax and business consultants. Students will also acquire important tools necessary for effective research and communication in taxation.

## Master of Taxation (MTax)

- **Grade Requirements:** A Master of Taxation student must complete all MTax program courses, including electives, and any leveling courses, with a grade of "C" or higher. In addition, the overall program GPA must be 3.0 or higher.
- **Credit Hour Requirements:** The program requires a minimum of 30 semester hours beyond a bachelor's degree in accounting.

## Admissions Requirements

- A four year Bachelor's degree. If the degree is not in Accounting, leveling courses will be required after acceptance into the program.
- An acceptable GMAT score.
- Acceptable grade point average in each of the following three areas:
  - a. Overall GPA
  - b. The last 60 credit hours of undergraduate work
  - c. Accounting course work only

Applicants must submit an online application, GMAT, current resume, and transcripts from every institution of higher education attended. Two letters of recommendation are required. At least one of those letters should come from individuals who can evaluate the applicant's academic abilities. All letters should address the applicant's potential for successful graduate study. Each applicant is considered on an individual basis.

### Additional Admission Requirements for International Students:

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL) or International Language Testing System (IELTS) which is not more than two years old. The TOEFL must have a minimum score of 80 (Internet-Based), and the IELTS must have a minimum of 6.5 with a minimum of 5.0 on each section.

## Application

Application for admission to the Master of Taxation Program should normally be made by **August 1** (fall semester), **December 1** (spring semester), and **April 1** (summer semester) of the year during which admission is sought. Application for admission must include GMAT scores, official undergraduate transcripts, resume, and two letters of recommendation.

It is expected that the Master of Taxation Program will entail approximately two semesters of full-time study for a student with a bachelor's degree in accounting. Students with other business-related degrees can expect to spend about two years in the program. Those with non-business related undergraduate degrees should plan to spend at least three years in the program.

Contact the School of Accounting & Taxation for a separate and detailed bulletin on the Master of Taxation Program.

## Advisement

For questions concerning academic advisement, the primary source of contact will be the Master of Taxation Program Advisor or Director. For issues regarding registration and scheduling, students will contact the School of Accounting & Taxation Administrative Specialist. Career services will be offered through the Goddard School of Business & Economics Career Center.

## Course Requirements for Master of Taxation

All MTax students are required to complete the following courses (18 credit hours):

- MTAX 6400 - Tax Research & Communication **Credits: (3)**
- MTAX 6405 - Accounting for Income Taxes **Credits: (3)**
- MTAX 6430 - Advanced Individual Taxation **Credits: (3)**
- MTAX 6435 - State & Local Taxation/Federal Tax Practice **Credits: (3)**
- MTAX 6460 - Advanced Corporate Taxation **Credits: (3)**
- MTAX 6470 - Advanced Partnership Taxation **Credits: (3)**

***MTax students are also required to complete 12 credit hours of electives as follows.***

At least one of the following (3 credit hours):

- MTAX 6410 - International Taxation **Credits: (3)**
- MTAX 6445 - Gifts, Estates, Trusts and Exempt Organizations **Credits: (3)**
- MTAX 6450 - Real Estate Taxation **Credits: (3)**
- MTAX 6455 - Gifts, Estates, Trusts & Real Estate Taxation **Credits: (3)**
- MTAX 6480 - Retirement Planning & Employee Benefits **Credits: (3)**
- MTAX 6485 - Retirement Plans & Exempt Organizations **Credits: (3)**
- MTAX 6490 - Mergers, Acquisitions and Consolidations **Credits: (3)**

At least one of the following (3 credit hours):

- MACC 6120 - Financial Accounting & Reporting **Credits: (3)**
- MACC 6130 - Governmental and Nonprofit Accounting **Credits: (3)**
- MACC 6160 - Financial Statement Analysis **Credits: (3)**
- MACC 6310 - Advanced Cost Accounting **Credits: (3)**
- MACC 6330 - Strategic Management Accounting **Credits: (3)**
- MACC 6560 - Advanced Auditing & Assurance Services **Credits: (3)**
- MACC 6570 - Information Systems Auditing **Credits: (3)**
- MACC 6580 - Internal Auditing **Credits: (3)**
- MACC 6610 - Advanced Accounting Information Systems **Credits: (3)**

*The final 6 credits may be any other MAcc or MTax courses. Select MBA courses approved by the MTax program director may also be used.*

- MBA 6310 - Information Technology in the Enterprise **Credits: (3)**
- MBA 6530 - E-Business **Credits: (3)**
- MBA 6540 - Negotiations **Credits: (3)**
- MBA 6580 - Project Management **Credits: (3)**
- MBA 6630 - Networking & Information Systems **Credits: (3)**
- MBA 6640 - Information Assurance in the Enterprise **Credits: (3)**

# School of Accounting & Taxation

**Department Chair:** David Malone

**Location:** Wattis Business Building, Room 221

**Telephone Contact:** Jeff Glover 801-626-6072

**Professors:** Jefferson Davis, David Malone, Matthew Mouritsen, Ryan Pace; **Associate Professors:** Yuhong Fan, James Hansen, Eric Smith, Jim Turner; **Assistant Professors:** Valerie Chambers, Darcie Costello, Andrea Gouldman, Weiwei Wang; **Instructors:** Lisa Hopkins, Loisanne Kattelman, Terrilyn Morgan

## Accounting

The School of Accounting & Taxation creates a synergy between accounting, business, and economic theory and contemporary practice to prepare working professionals and full-time students for careers in a global, culturally diverse, information-driven economy. Three principles are central to our mission:

- **Education** - The first, and foremost, is fostering learning through excellent teaching, individual attention, and scholarship, which develops, assesses, and disseminates good practice.
- **Research** - The second is the application of theory to practice through applied research and scholarship, and the utilization of applied research to further learning in the classroom and through co-curricular activities.
- **Community** - The third is advancing contemporary practice and creating learning opportunities by contributing to the accounting profession and to business and the community.

Accounting is defined as the process of gathering, classifying, interpreting, and presenting financial and non-financial information for decision-making purposes to diversified user groups. The field of accounting encompasses the well-recognized profession of public accounting including auditing, management advisory services, and tax services; professional careers in industry such as management accounting (controllershship), cost accounting, and internal auditing; careers in various governmental agencies and other accounting and business-related fields.

Certification in public accounting in Utah requires 30 semester hours beyond a baccalaureate degree. Students should take advantage of opportunities to prepare themselves to sit for one of the professional examinations (such as Certified Public Accountant, Certified Management Accountant, and/or Certified Internal Auditor) at the culmination of their accounting program.

## Finance

After studying in the School's core courses about the various functions in organizations, the student who concentrates in finance learns how to efficiently acquire, allocate, and control a firm's financial resources.

A background in finance will prepare the student to: (1) conduct detailed financial analyses; (2) relate the financial environment of an organization to the policies that organization will need for optimum returns; and (3) select and analyze investment opportunities for both individuals and organizations.

## Accounting (BS)

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." All Accounting courses numbered above 3000 require admission to the Goddard School and Business Foundations except ACTG 3110 and ACTG 3400. (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business

Foundations GPA, John B. Goddard School of Business & Economics (major) GPA, and the overall university GPA must be 2.5 or higher.

- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.
- **Website:** [weber.edu/goddard/accounting.html](http://weber.edu/goddard/accounting.html)

## Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Accounting major will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); COMM 1020 or 2110 (Humanities); BTNY 1403 (Life Science); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions.

## Major Course Requirements for BS Degree

### John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**
- Business Core **(37-38)**

### Required Major Courses (27 credit hours)

*All course prerequisites must be met. Refer to the course descriptions for required prerequisites.*

- ACTG 3110 - Intermediate Financial Accounting I **Credits: (3)**
- ACTG 3120 - Intermediate Financial Accounting II **Credits: (3)**
- ACTG 3300 - Cost Accounting **Credits: (3)**
- ACTG 3400 - Taxation of Individuals **Credits: (3)**
- ACTG 3750 - Accounting & Information Systems **Credits: (3)**
- ACTG 4510 - Auditing **Credits: (3)**
- ACTG 4140 - Accounting for Global and Complex Entities **Credits: (3) \***
- ACTG 4440 - Taxation of Business Entities **Credits: (3)**
- BSAD 4210 - Survey of Business Law **Credits: (3)**

Note:

*\*ACTG 4140 satisfies the International requirement under the Cross-Functional Core as well as the Required Major course requirement.*

## Oral Communications Elective (3 credit hours)

*Select one of the following*

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- COMM 2270 - Argumentation and Debate **Credits: (3)**
- COMM 3070 - Performance Studies **Credits: (3)**
- COMM 3100 - Small Group Facilitation and Leadership **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**

## Finance (BS)

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, John B. Goddard School of Business & Economics (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.
- **Website:** [www.weber.edu/goddard/Finance.html](http://www.weber.edu/goddard/Finance.html)

### Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

### Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

### General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Finance (BS) will also satisfy general education requirements: ENGL 2010 (English Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); and BTNY 1403 (Life Science). ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions.

# Major Course Requirements for BS Degree

## John B. Goddard School of Business & Economics Requirements

### Liberal Support Curriculum (13)

- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** Should take (3) credits
- ENGL 1010 EN - Introductory College Writing **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- MATH 1050 QL - College Algebra **Credits: (4)**

### Business Foundations (16)

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
- QUAN 2600 - Business Statistics I **Credits: (3)**

### Major Required Courses (24)

- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- FIN 3300 - Investments **Credits: (3)**
- FIN 3350 - Financial Institutions **Credits: (3)**
- FIN 3500 - Capital Budgeting **Credits: (3)**
- FIN 4400 - Financial Problems - Corporate Finance **Credits: (3)**
- FIN 4410 - Financial Problems - Investments **Credits: (3)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- PS 3250 - Business Communication **Credits: (3)**

### Major Elective Courses (9)

*Select three courses*

- ACTG 3110 - Intermediate Financial Accounting I **Credits: (3)**
- ACTG 3120 - Intermediate Financial Accounting II **Credits: (3)**
- ACTG 3400 - Taxation of Individuals **Credits: (3)**
- BSAD 3500 - Introduction to Business Research **Credits: (3)**
- BSAD 4210 - Survey of Business Law **Credits: (3)**
- BSAD 4500 - Entrepreneurship **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- FIN 3400 - Real Estate Principles and Practices **Credits: (3)**
- FIN 4860 - Finance Internship **Credits: (3)**
- MKTG 3200 - Selling and Sales Management **Credits: (3)**
- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)**
- SCM 4100 - Quality Management and Process Improvement **Credits: (3)**
- One Additional International Course

## Business Core

- QUAN 2400 - Business Calculus **Credits: (3)**
- QUAN 3610 - Business Statistics II **Credits: (3)**
- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- BSAD 3330 - Business Ethics & Environmental Responsibility **Credits: (3)**
- BSAD 4620 - Executive Lectures **Credits: (1)**
- BSAD 4780 - Strategic Management **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- FIN 3200 - Financial Management **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
  
- MGMT 3200 - Managerial Communications **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)** or
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**

## Accounting Minor

- **Grade Requirements:** Candidates for minors must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, John B. Goddard School of Business & Economics (minor) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 25 credit hours is required. Of the 25 hours, 15 hours are accounting classes and the remaining classes are support courses.
- **Website:** [weber.edu/goddard/accountingminor.html](http://weber.edu/goddard/accountingminor.html)

*For Goddard School majors other than finance, this minor includes up to nine credit hours of course work beyond requirements in major field, depending on the electives chosen. Finance majors can complete an accounting minor with no additional hours beyond the major requirements, depending on the electives chosen.*

This minor is available to all students. Business students must complete the minor requirements in addition to all major requirements. Approval of a minor program by the School of Accounting & Taxation is required. All prerequisites for required courses must be satisfied.

## Course Requirements for Accounting Minor

### Support Courses Required (16 credit hours)

#### Business Foundations:

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**

## Minor Courses Required (6 credit hours)

- ACTG 3110 - Intermediate Financial Accounting I **Credits: (3)**
- ACTG 3120 - Intermediate Financial Accounting II **Credits: (3)**

## Minor Elective Courses (3 credit hours)

Choose one of the following:

- ACTG 3300 - Cost Accounting **Credits: (3)**
- ACTG 3400 - Taxation of Individuals **Credits: (3)**
- ACTG 3750 - Accounting & Information Systems **Credits: (3)**
- ACTG 4140 - Accounting for Global and Complex Entities **Credits: (3)**
- ACTG 4510 - Auditing **Credits: (3)**

## Accounting Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Department of Business Administration and Marketing

**Department Chair:** David Read

**Location:** Wattis Business Building, Room 216

**Telephone:** Elizabeth Hill 801-626-6075

**Professors:** Anthony Allred, Michael J. Stevens; **Associate Professors:** Clinton Amos, Shaun Hansen; **Assistant Professors:** Jennifer Anderson, Wendy Fox Kirk, Jesse King, Skyler King, David Noack, David Read, Bryant Thompson;

**Instructors:** Chuck Kaiser, Brandon Stoddard

The Department of Business Administration and Marketing offers a Bachelor of Science in Business Administration (BSBA), which is a general management degree. This major has been described as an undergraduate MBA because of its emphasis on breadth of education across all of the functional areas of business. This degree would be especially appropriate for students who wish to prepare for a generalist career in management rather than a focused career in a specialized area of business such as finance or marketing. It is also a very appropriate degree for the entrepreneurial students who aspire to start or run their own business one day.

### **Business Administration Human Resource Management (HRM) Emphasis**

The student who concentrates in Human Resource Management prepares to apply the knowledge and skills needed to design, manage and deliver key organizational HRM functions. Through this, the HRM professional aids the effective alignment of people management objectives with organizational strategy for the purpose of increasing organizational efficiency and effectiveness. In addition to the John B. Goddard School of Business & Economics core requirements, the HRM student studies organizational behavior, leadership and teamwork skills, continuous improvement, effective

communication, and information technology. HRM students will also take specialized courses in employment and labor law, employee training & development, recruitment & hiring decisions, and compensation & benefits.

## **Marketing**

This is the only marketing program on WSU's campus. Students concentrating in marketing specialize in course work that deals with business activities involved in developing, communicating, delivering, and exchanging value for all stakeholders.

Courses provide students with traditional and digital marketing concepts--and experience in applying them. These courses prepare students to assume responsible positions in industry. Those desiring careers in marketing research or higher levels of corporate management are well prepared to enter graduate programs of their choice.

## **Business Administration (BS)**

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, Goddard School (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.

## **Advisement**

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## **Admission Requirements**

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## **General Education**

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Business Administration major will also satisfy general education requirements: ENGL 2010 (English Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); and BTNY 1403 (Life Science).

## **Major Course Requirements for BS Degree**

John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**

- Business Core **(37-38)**

### Major Courses Required (9 credit hours)

- MGMT 3300 - Human Resource Management **Credits: (3)**
- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- MGMT 4400 - Advanced Organizational Behavior **Credits: (3)**

### Major Electives (9 credit hours)

#### One Marketing course

- MKTG 3100 - Consumer Behavior **Credits: (3)**
- MKTG 3200 - Selling and Sales Management **Credits: (3)**
- MKTG 3450 - Promotion Management **Credits: (3)**
- MKTG 3500 - Services and Sports Marketing **Credits: (3)**
- MKTG 4400 - Marketing Strategy **Credits: (3)**
- MKTG 3600 - International Marketing **Credits: (3)** (if not used above as International course)
- MKTG 4200 - Internet Marketing **Credits: (3)**
- BSAD 3500 - Introduction to Business Research **Credits: (3)**

#### One Supply Chain Management Course

- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)**
- SCM 4100 - Quality Management and Process Improvement **Credits: (3)**

#### One other course from Actg/Econ/Finance

- FIN 3350 - Financial Institutions **Credits: (3)**
- FIN 3500 - Capital Budgeting **Credits: (3)**
- FIN 4400 - Financial Problems - Corporate Finance **Credits: (3)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ACTG 3750 - Accounting & Information Systems **Credits: (3)**

### Two General Electives (6 credit hours) from list of approved courses

- MGMT 3350 - Employment and Labor Law **Credits: (3)**
- MGMT 3400 - International Business **Credits: (3)** (if not used above as International course)
- MGMT 3450 - Business Studies Abroad-International Management **Credits: (3)** (if not used above as International course)
- MGMT 3550 - The Cultural Environment of International Business **Credits: (3)** (if not used above as International course)
- MGMT 4310 - Compensation and Benefits **Credits: (3)**
- MGMT 4320 - Staffing Organizations **Credits: (3)**
- MGMT 4350 - Training **Credits: (3)**
- MGMT 4860 - Management Internship **Credits: (3)**
- MGMT 4865 - Human Resource Internship **Credits: (3)**
- MGMT 4650 - Negotiations **Credits: (3)**

- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)** (if not used above as Supply Chain Management course)
- SCM 4100 - Quality Management and Process Improvement **Credits: (3)** (if not used above as Supply Chain Management course)
- BSAD 3500 - Introduction to Business Research **Credits: (3)** (if not used above as Marketing course)
- BSAD 3600 - [World Region] Business and Society **Credits: (3)** (if not used above as International course)
- BSAD 4210 - Survey of Business Law **Credits: (3)**
- BSAD 4500 - Entrepreneurship **Credits: (3)**

## Human Resource Management Emphasis, Business Administration (BS)

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, John B. Goddard School of Business & Economics (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.

### Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section in this catalog.

### Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

### General Education

Refer to the University Degree Requirements for Bachelor of Science requirements. The following courses required for the Human Resource Management Emphasis will also satisfy general education requirements: ENGL 2010 EN (English Composition); MATH 1050 QL (Quantitative Literacy); ECON 2010 SS or ECON 2020 SS (Social Science); and BTNY 1403 LS (Life Science).

# Major Course Requirements for BS Degree Human Resource Management Emphasis

## John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**
- Business Core **(37-38)**

## Major Courses Required (9 credit hours)

- MGMT 3300 - Human Resource Management **Credits: (3)**
- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- MGMT 4400 - Advanced Organizational Behavior **Credits: (3)**

## Major Required for Emphasis (12 credit hours)

- MGMT 4310 - Compensation and Benefits **Credits: (3)**
- MGMT 4350 - Training **Credits: (3)**
- MGMT 3350 - Employment and Labor Law **Credits: (3)**
- MGMT 4320 - Staffing Organizations **Credits: (3)**

## One General Elective (3 credit hours) from list of approved courses

- MGMT 3400 - International Business **Credits: (3)** (if not used above as International course)
- MGMT 3450 - Business Studies Abroad-International Management **Credits: (3)** (if not used above as International course)
- MGMT 3550 - The Cultural Environment of International Business **Credits: (3)** (if not used above as International course)
- MGMT 4860 - Management Internship **Credits: (3)** OR
- MGMT 4865 - Human Resource Internship **Credits: (3)**
- MGMT 4650 - Negotiations **Credits: (3)**
- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)**
- SCM 4100 - Quality Management and Process Improvement **Credits: (3)**
- BSAD 3500 - Introduction to Business Research **Credits: (3)**
- BSAD 3600 - [World Region] Business and Society **Credits: (3)** (if not used above as International course)
- BSAD 4210 - Survey of Business Law **Credits: (3)**
- BSAD 4500 - Entrepreneurship **Credits: (3)**

# Marketing (BS)

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, Goddard School (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.
- Website: [www.weber.edu/goddard/Finance.html](http://www.weber.edu/goddard/Finance.html)

## Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Marketing (BS) will also satisfy general education requirements: ENGL 2010 (English Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); and BTNY 1403 (Life Science).

## Major Course Requirements for BS Degree

### John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 - Business Foundations and Admission Assessment
- Business Core **(37-38)**

### Major Courses Required (15 credit hours)

- MKTG 3100 - Consumer Behavior **Credits: (3)**
- MKTG 3200 - Selling and Sales Management **Credits: (3)**
- BSAD 3500 - Introduction to Business Research **Credits: (3)**
- MKTG 3450 - Promotion Management **Credits: (3)**
- MKTG 4400 - Marketing Strategy **Credits: (3)**

## Elective Courses (9 credit hours)

Select two courses from Group 1 plus one additional course from either Group 1 or Group 2.

### Group 1

- MKTG 3500 - Services and Sports Marketing **Credits: (3)**
- MKTG 3600 - International Marketing **Credits: (3)**
- MKTG 4200 - Internet Marketing **Credits: (3)**
- MKTG 4860 - Marketing Internship **Credits: (3)**

### Group 2

- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- SCM 4100 - Quality Management and Process Improvement **Credits: (3)**
- SCM 4400 - Global Supply Chain Management **Credits: (3)**
- MGMT 4650 - Negotiations **Credits: (3)**
- BSAD 4210 - Survey of Business Law **Credits: (3)**
- COMM 3850 - Advertising **Credits: (3)**

## Business Administration for Non-Business Majors Minor

- **Grade Requirements:** A minimum GPA of 2.5 with no grade lower than a 'C-' in all courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 19 credit hours in approved courses. See the John B. Goddard School of Business & Economics advisor for requirements.

*Students pursuing this business administration minor must major in a nonbusiness field.*

*See the Goddard School Advising Center, WB 211, (801) 626-6534 for advisement.*

## Courses Requirements for Minor

### Required Courses (19 credit hours)

- BSAD 1010 - Introduction to Business **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**

Students choose two from the following (6):

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
  
- BSAD 3200 - Legal Environment of Business **Credits: (3)** or
- BSAD 3330 - Business Ethics & Environmental Responsibility **Credits: (3)**  
***Students choose either BSAD 3200 or BSAD 3330***

Students choose three of the following (9):

- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**
- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**

Note:

*All course prerequisites must also be completed.*

## **Entrepreneurship Minor**

- **Grade Requirements:** All classes must be passed with a C- or higher.
- **Credit Hour Requirements:** A total of 15 credit hours are required for all registered students.

### **Required Courses for all Majors (15):**

- BSAD 1010 - Introduction to Business **Credits: (3)** or
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
  
- ENTR 1002 - Introduction to Entrepreneurship **Credits: (3)**
- ENTR 1004 - Entrepreneurial Finance: Bootstrapping, Accounting & Survival Tactics **Credits: (3)**
- ENTR 2001 - Sales and Marketing: Scaling a Successful Business Model **Credits: (3)**
  
- ENTR 3002 - Starting the Business **Credits: (3)** or
- ENTR 4680 - Small Business Diagnostics **Credits: (3)**

Note:

This minor is available to all students. Approval of a minor program by the John B. Goddard School of Business is required.

*See the Goddard School Advising Center, WB 211, (801) 626-6534 for advisement.*

# Leadership Minor

- **Grade Requirements:** All classes must be passed with a C- or higher.
- **Credit Hour Requirements:** A total of 18 credit hours are required for all registered students.

## Required Courses for all Business Administration Majors (18):

### Core Courses (12):

- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- MGMT 4400 - Advanced Organizational Behavior **Credits: (3)**
- MGMT 4410 - Leadership Through Character **Credits: (3)**
- MGMT 4420 - Critical Thinking for Leaders **Credits: (3)**

### Elective Courses (6):

- Students select two leadership-related courses university wide. Approval of elective courses by the Business Administration department is required. Students are responsible for understanding any pre-requisites or conditions for chosen electives.

## Required Courses for all Non-Business Administration Majors (18):

### Pre-requisite (3):

- COMM 3550 - Organizational Communication **Credits: (3)** or
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)** or
- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**

### Core Courses (12):

- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- MGMT 4400 - Advanced Organizational Behavior **Credits: (3)**
- MGMT 4410 - Leadership Through Character **Credits: (3)**
- MGMT 4420 - Critical Thinking for Leaders **Credits: (3)**

### Elective Courses (3):

- Students select one leadership-related course university wide. Approval of elective courses by the Business Administration department is required. Students are responsible for understanding any pre-requisites or conditions for chosen electives.

### Note:

This minor is available to all students. Approval of a minor program by the John B. Goddard School of Business is required. Approval of elective courses by the Business Administration department is required.

## Examples of pre-approved elective courses include:

- **Business Administration:** Human Resource Management (MGMT 3300); Business Ethics & Environmental Responsibility (BSAD 3330); Management Internship (MGMT 4860); Human Resource Internship (MGMT 4865)
- **Child and Family Studies:** Early Childhood Coaching (CHF 4201, 4202, 4203)
- **Communication:** Interpersonal Communication and Conflict Management (COMM 3050), Listening and Interviewing (COMM 3060), Small Group Facilitation and Leadership (COMM 3100), Advanced Public Speaking (COMM 3120), Organizational Communication (COMM 3550)
- **Criminal Justice:** Criminal Justice Management (CJ 3020)
- **Health Administrative Services:** Health Care Administrative and Supervisory Theory (HAS 3260)
- **Honors:** Great Ideas of the West (HNRS 2110, 2120); Great Ideas of the East (HNRS 2130)
- **Military Science:** Introduction to the Army and Critical Thinking (MILS 1010); Introduction to the Profession of Arm (MILS 1020); Leadership and Decision Making (MILS 2010); Army Doctrine and Team Development (MILS 2020); Leadership Under Fire (MILS 2600)
- **Political Science and Philosophy:** Leadership and the Political Life (POLS 1520); Lobbying: Theory and Practice (POLS 3780); American Presidency (POLS 4640); Classical Political Thought (POLS 4360)
- **Professional Sales:** Developing Team Leadership Skills (PS 3702); Sales Presentation Strategies (PS 3903)
- **Psychology:** Theories of Personality (PSY 3430); Social Psychology (PSY 3460); Psychology of Human Relationships (PSY 2000)
- **Sociology:** Self & Society (SOC 3000); Organizations in Society (SOC 3550); Sociology of Globalization (SOC 4410); Sociology of Work (SOC 4550)

Courses not appearing on the list of pre-approved course may also be considered as electives pending approval by the Business Administration Department.

*See the Goddard School Advising Center, WB 211, (801) 626-6534 for advisement.*

## MBA Prerequisite Minor

**Grade Requirements:** Candidates for this minor must complete all prerequisite and required business and economics courses with a grade of "C" or higher. In addition, the cumulative Business Foundations GPA, John B. Goddard School of Business & Economics (minor) GPA, and the overall university GPA must be 2.5 or higher.

**Credit Hour Requirements:** A total of 25 credit hours is required. Of the 25 hours, 21 hours are required classes and the remaining class of 4 hours is a support course.

Completion of this minor will satisfy the Prerequisite Courses required for Weber State's MBA program. This program will prepare undergraduate students to move directly into an MBA program; at WSU, this will allow students to enter the 39 credit Fast Track program in the Goddard School MBA degree. Note also that neither this minor nor any of the courses within it, guarantee any student admission to WSU's MBA program, or any other MBA program.

All math and Goddard School courses expire after 10 years from the date of completion.

For advising, please contact the Goddard School Advising Center at 801-626-6534 or email [advisebusiness@weber.edu](mailto:advisebusiness@weber.edu)

## Course Requirements for MBA Prerequisite Minor

### Courses Required (21 credit hours)

- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- ACTG 2010 - Survey of Accounting I **Credits: (3) \***
- ACTG 2020 - Survey of Accounting II **Credits: (3) \***
- ECON 2010 SS - Principles of Microeconomics **Credits: (3) \***
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3) \***
- QUAN 2600 - Business Statistics I **Credits: (3) \***
- QUAN 3610 - Business Statistics II **Credits: (3)**

### Support Courses Required (4 credit hours)

- MATH 1050 QL - College Algebra **Credits: (4)**

Note:

\*MATH 1050 can also be completed with a MATH ACT of 26 or higher, ALEKS score of 65-100, Math Accuplacer score of 70 or higher in College Level Math, or a score of 3 or higher on the MATH: Calc AB or BC AP exams.

## Business Administration Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Supply Chain & Management Information Systems

**Department Chair:** Seokwoo Song

**Location:** Wattis Business Building, Room 216

**Telephone:** Elizabeth Hill 801-626-6075

**Professors:** Stan Fawcett, Taowen Le, Shane Schvaneveldt, Seokwoo Song; **Associate Professor:** Randy Boyle;

**Assistant Professors:** Evan Barlow, Jeffrey Clements, Amydee Fawcett, Grace Zhang

The Department of Supply Chain & Management Information Systems offers two Bachelor of Science degree programs. Supply Chain Management (SCM) provides students with the specialized skills to manage key value-added processes, inspire creative decision-making, and collaborate effectively with decision makers across the firm and around the world. The SCM program offers a whole-brain approach that incorporates soft people skills with the technical side of logistics management. Management Information Systems (MIS) prepares students for building technical and managerial skills, along with providing the knowledge and communication skills to navigate the business world. The depth and breadth of technical know-how gained in the MIS program prepares students for a successful career as an information systems professional, helping organizations support business processes and solve business problems.

## Supply Chain Management (SCM)

Supply Chain Management is "the value creation engine of every organization."

Everyone who participates in the creation and distribution of a product is part of a supply chain, and a Supply Chain Management major learns how to choreograph and manage this entire chain of activities from suppliers, manufacturers, service providers and distributors, to consumers.

With its origins dating back to 1969, Weber State University's Supply Chain Management program is one of the oldest programs in the United States. Our program covers the depth and breadth of SCM, giving our students the foundation for successful careers in logistics, purchasing, operations, and other areas of supply chain management.

Employers recognize our graduates as some of the best in the field, and the demand for Weber State University SCM graduates is strong. Traditionally, graduates from our SCM program enjoy the highest average starting salary of all business majors, and job opportunities exceed the number of graduates. Global and area companies hiring our SCM graduates include Kimberly Clark, Toyota, Ford Motor Company, Autoliv, Orbital ATK, Intermountain Healthcare, Wal-Mart, J.C. Penney Company, UPS, Northrop Grumman, and the U.S. Air Force.

In addition to many opportunities for internships, our supply chain management majors also receive several scholarships from professional associations and area companies.

## Management Information Systems (MIS)

A bachelor's degree in Management Information Systems provides students with a balanced education between business and information technologies. It provides students with a broad background in basic business knowledge, problem solving, and computer technology and skills. Graduates from this major are prepared to help organizations use computer technology to support their business processes and solve their business problems. Technologies that all MIS majors study include software development, computer architecture, database design, computer networks, and systems analysis and design. In addition, students may also elect to study advanced networks, web development and management, and information security and computer forensics.

Management Information Systems graduates may work for a large organization, specializing in one aspect of information technology, or, they may work for a small firm as one of a few people who helps support all areas of the firm's computer technologies. The job will involve working with people to understand how they do their jobs and where computers can be most effective, implementing computer-based solutions, training people to use computer systems, installing and troubleshooting hardware, software, or networks, and helping management understand and plan for the best new technologies to integrate in the organization's business processes.

## Management Information Systems (AS)

- **Program Prerequisite:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." All IST courses numbered above 3000 require Business Foundations except MIS 3210 and MIS 3610. (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Grade Requirements:** Even though a minimum grade of "C-" will be accepted in courses used to satisfy the associate's degree requirements, an overall GPA of 2.5 or higher is required.
- **Credit Hour Requirements:** A total of 60 credit hours is required; a minimum of 25 of these is required within the AS program.

## Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## General Education

Refer to Degree Requirements for Associate of Science requirements. The following courses required for the Management Information Systems associates will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); BTNY 1403 (Life Science); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions. MIS 1100 SS - The Digital Society, is recommended to fulfill a general education requirement in Social Science.

## Major Course Requirements for AS Degree

Courses Required (28 credit hours)

- MIS 2010 - Business Computer Skills **Credits: (1)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- MIS 2110 - Software Development I **Credits: (3)**
- MIS 3210 - Database Design and Implementation **Credits: (3)**
- MIS 3610 - Networks & Data Communications I **Credits: (3)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**

## Management Information Systems (BS)

- **Program Prerequisite:** MIS Associate of Science Degree, or equivalent degree or course work (which may be articulated for the MIS Associate) from an accredited AS/AA program.  
Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and prior completion of ACTG 2010, ACTG 2020; ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, Goddard School (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.

## Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Management Information Systems major will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); BTNY 1403 (Life Science); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions. MIS 1100, The Digital Society, is recommended to fulfill a general education requirement in Social Science.

*MATH 1050 is, in addition to being a specific requirement in the John B. Goddard School of Business & Economics, a prerequisite for ECON 2010, QUAN 2400, and QUAN 2600. Students seeking a major within the Goddard School should plan to take the necessary mathematics courses as early as possible in their program of study. MATH 1050 must be completed with a grade of "C" or higher and may not be taken on a credit/no credit basis.*

## Major Course Requirements for BS Degree

### John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**
- Business Core **(37-38)**

### Major Courses Required (15 credit hours)

- MIS 2110 - Software Development I **Credits: (3)**
- MIS 3210 - Database Design and Implementation **Credits: (3)**
- MIS 3610 - Networks & Data Communications I **Credits: (3)**
- MIS 4600 - Information Security I **Credits: (3)**
- MIS 4730 - IT Project Management and Systems Design **Credits: (3)**

### Concentration Elective Courses (9 credit hours)

*Select 3 courses from the following*

- MIS 2030 - Introduction to Business Analytics **Credits: (3)**
- MIS 3220 - Business Intelligence **Credits: (3)**
- MIS 3230 - Data Mining for Business **Credits: (3)**
- MIS 3620 - Networks and Data Communications II **Credits: (3)**
- MIS 3700 - E-business Technologies & Web Development **Credits: (3)**
- MIS 3740 - Business Machine Learning **Credits: (3)**

- MIS 4700 - Information Security II **Credits: (3)**
- MIS 4710 - Enterprise Software Development **Credits: (3)**
- MIS 4720 - Emerging Information Technologies **Credits: (3)**
- MIS 4891 - Cooperative Work Experience **Credits: (1)**

## Supply Chain Management (BS)

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Minor:** Not required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, John B. Goddard School of Business & Economics (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.

### Academic Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

### Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

### General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Supply Chain Management (BS) will also satisfy general education requirements: ENGL 2010 (English Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); and BTNY 1403 (Life Science).

## Major Course Requirements for BS Degree

### John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 - Business Foundations and Admission Assessment
- Business Core **(37-38)**

## Business Courses Required (18 credit hours)

- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)**
- SCM 3600 - Logistics & Transportation **Credits: (3)**
- SCM 3700 - Purchasing & Strategic Sourcing **Credits: (3)**
- SCM 4100 - Quality Management and Process Improvement **Credits: (3)**
- SCM 4400 - Global Supply Chain Management **Credits: (3)** \*
- SCM 4500 - Supply Chain Relational Strategies **Credits: (3)**
- SCM 4550 - Strategic Supply Chain Design **Credits: (3)**

Note:

\* *SCM 4400 satisfies the International Course requirement under the Business Core as well as the Business Courses requirement.*

## Elective Courses (6 credit hours)

*Select two courses from the following (see an advisor for guidance in course selection)*

- SCM 4700 - Supply Chain Case Analysis, Logic, and Presentation **Credits: (3)**
- SCM 4850 - Supply Chain Management Study Abroad **Credits: (1-3)**
- SCM 4860 - Supply Chain Management Internship **Credits: (3)**
- ACTG 3300 - Cost Accounting **Credits: (3)**
- FIN 3500 - Capital Budgeting **Credits: (3)**
- MGMT 3300 - Human Resource Management **Credits: (3)**
- MGMT 4300 - Leadership and Group Effectiveness **Credits: (3)**
- MGMT 4650 - Negotiations **Credits: (3)**
- MKTG 3200 - Selling and Sales Management **Credits: (3)**
- MKTG 4400 - Marketing Strategy **Credits: (3)**
- MIS 3210 - Database Design and Implementation **Credits: (3)**
- BSAD 3500 - Introduction to Business Research **Credits: (3)**
- BSAD 4500 - Entrepreneurship **Credits: (3)**
- DET 1010 - Introduction to Engineering & Technical Design (Solidworks) **Credits: (3)**
- One additional international business course from GSBE list

## Management Information Systems (BIS)

- **Program Prerequisite:** Refer to Bachelor of Integrated Studies (BIS) requirements.
- **Grade Requirements:** Each IST class must be completed with a grade of C- or better, and the overall GPA for IST classes must be at least 2.5.
- **Credit Hour Requirements:** 19 hours of MIS courses selected in consultation with an IST advisor.

## Course Prerequisites, Advisement and Admission Requirements

All prerequisites must be completed before upper-division enrollment. For most classes this includes the business foundations and therefore can add up to 15 credits to your program of study.

## Suggested Courses (13 credit hours)

- MIS 2010 - Business Computer Skills **Credits: (1)**
- MIS 2110 - Software Development I **Credits: (3)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- MIS 3210 - Database Design and Implementation **Credits: (3)**
- MIS 3610 - Networks & Data Communications I **Credits: (3)**

## Elective Courses (6 credit hours)

*Select two of the following*

- MIS 3620 - Networks and Data Communications II **Credits: (3)**
- MIS 3700 - E-business Technologies & Web Development **Credits: (3)**
- MIS 4600 - Information Security I **Credits: (3)**
- MIS 4700 - Information Security II **Credits: (3)**
- MIS 4710 - Enterprise Software Development **Credits: (3)**
- MIS 4720 - Emerging Information Technologies **Credits: (3)**

## Management Information Systems Minor

- **Grade Requirements:** A 2.5 GPA in the minor courses. A course grade of "C-" or higher is required for all business and economics courses.
- **Credit Hour Requirements:** 19 semester credit hours are required for non-business majors and 15 credits are required for business majors. Approval of a minor program by the Management Information Systems department is required.

### Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Course Requirements for Minor

### Non-Business Majors (19 credit hours)

Courses Required (13 credit hours)

- MIS 2010 - Business Computer Skills **Credits: (1)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- MIS 2110 - Software Development I **Credits: (3)**
- MIS 3210 - Database Design and Implementation **Credits: (3)**
- MIS 3610 - Networks & Data Communications I **Credits: (3)**

Elective Courses (6 credit hours)

*Select two of the following*

- MIS 3620 - Networks and Data Communications II **Credits: (3)**
- MIS 3700 - E-business Technologies & Web Development **Credits: (3)**
- MIS 4600 - Information Security I **Credits: (3)**
- MIS 4700 - Information Security II **Credits: (3)**
- MIS 4710 - Enterprise Software Development **Credits: (3)**
- MIS 4720 - Emerging Information Technologies **Credits: (3)**

Business Majors (15 credit hours)

Courses Required (12 credit hours)

- MIS 2110 - Software Development I **Credits: (3)**
- MIS 3210 - Database Design and Implementation **Credits: (3)**
- MIS 3610 - Networks & Data Communications I **Credits: (3)**
- MIS 4600 - Information Security I **Credits: (3)**

Elective Courses (3 credit hours)

*Select one of the following*

- MIS 3620 - Networks and Data Communications II **Credits: (3)**
- MIS 3700 - E-business Technologies & Web Development **Credits: (3)**
- MIS 4700 - Information Security II **Credits: (3)**
- MIS 4710 - Enterprise Software Development **Credits: (3)**
- MIS 4720 - Emerging Information Technologies **Credits: (3)**

## Supply Chain Management Minor

**For Engineering Technology Students**

**Program Prerequisites:** In order to qualify for this minor program, students must be enrolled in one of the following programs in the College of Engineering, Applied Science & Technology (EAST):

- Manufacturing Engineering Technology
- Design Engineering Technology
- Mechanical Engineering Technology
- Electronics Engineering Technology

Prior to taking SCM coursework, students must have successfully completed the statistics course, MFET 2410 Quality Concepts and Statistical Applications, or other approved statistics course. Furthermore, students should have completed some engineering technology coursework such that they are in the second or third year of their engineering technology program.

**Grade Requirements:** The overall university GPA and the minor program GPA must be 2.5 or higher.

**Credit Hour Requirements:** 15 - 18 credit hours are required for the minor.

**Required Major:** This minor may be earned only in conjunction with completion of one of the engineering technology major programs listed above.

## Academic Advisement

Advisement is required for students desiring to enroll in this minor program. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Students may be admitted to this minor program without meeting other business school admission requirements if they meet the minor program prerequisites and receive approval from the Goddard School Advising Center. Students may obtain information regarding admissions to the minor from the Goddard School Advising Center, WB 211, (801) 626-6534.

## Course Requirements for SCM Minor

- SCM 3050 - Operations and Supply Chain Management **Credits: (3)**
- SCM 3500 - Spreadsheet Modeling for Decision-Making **Credits: (3)**
- SCM 3600 - Logistics & Transportation **Credits: (3)**
- SCM 3700 - Purchasing & Strategic Sourcing **Credits: (3)**
- \* SCM 4100 - Quality Management and Process Improvement **Credits: (3)**
- SCM 4400 - Global Supply Chain Management **Credits: (3)**

*\* SCM 4100 is a required course. However, students that take MFET 4590, MFET 3810 and MFET 3910 can substitute these courses for SCM 4100 as they provide students with similar knowledge. For students majoring in MFET, these three course (MFET 4590, 3810 and 3910) are required and will count towards an MFET degree.*

# Department of Economics

**Department Chair:** Brandon Koford

**Location:** Wattis Business Building, Room 226

**Telephone Contact:** Rebecca Kamanski 801-626-6066

**Professors:** Therese Cavlovic Grijalva, Doris Geide-Stevenson, John Mbaku, Clifford Nowell, Michael Vaughan;

**Associate Professors:** Nazneen Ahmad, Brandon Koford; **Assistant Professors:** Jenny Gnagey, Matthew Gnagey, Andrew Keinsley, Álvaro La Parra-Pérez, Sandeep Rangaraju, Gavin Roberts, Christopher Yencha

The Department of Economics offers two different degree programs. The career field selected will determine the educational goals a student must set and will be an important element in deciding which of the many avenues towards a bachelor's degree available in economics is best suited for you.

Economics provides general analysis of decision making where resource constraints are present. Within the area of business, the fields of economics and finance are perhaps the most rigorous in terms of the use and application of mathematical and statistical reasoning. Students with a bachelor's degree in Business Economics are generally prepared to start their careers in any area of business, but are particularly prepared for jobs that call for data analysis, pricing, purchasing, and report writing. Business economists are often employed in private business firms in the financial, retailing, and industrial sectors. A complete career guide is available from the department chairperson. A degree in Business Economics is also regarded by graduate business schools as excellent preparation for advanced work toward an MBA, as well as advanced degrees in other business related disciplines such as human resource management, public administration, finance, and international business. Students seeking an advanced degree in economics, law, other social and behavioral sciences, urban and regional planning, actuarial science, etc., should also investigate the Economics Major.

## Center for Economic Education

The Department has established a Center for Economic Education. Its basic function is to help educators in secondary and elementary schools improve their understanding and knowledge of economics. This will assist them in providing their students with the fundamental economic tools needed to evaluate complex national and international events that are a part of their daily existence.

## Business and Economics (AS)

**Program Description:** The Associate of Science (AS) degree in Business and Economics provides foundational skills and knowledge in accounting, economics, statistics, management information systems, as well as other functional business areas of the students' choice. This skill- and knowledge set will make students more effective business professionals as it introduces communication and analysis tools critical in a professional business environment.

**Grade Requirements:** Even though a minimum grade of "C-" will be accepted in courses used to satisfy the associate's degree requirements, an overall GPA of 2.5 or higher is required.

**Credit Hour Requirements:** A total of 60 credit hours is required; a minimum of 20 of these is required in residence (for transfer students).

### Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

### Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for all business majors, minors, emphases and certificates. To be admitted, students must register for BSAD 2899. Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

### General Education

Refer to Degree Requirements for Associate of Science requirements. The following courses required for the Business and Economics associates will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); BTNY 1403 (Life Science); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions.

## Major Course Requirements for AS Degree

Courses Required (25 credit hours)

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- BSAD 2899 - Business Foundations and Admission Assessment **Credits: (0)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- MIS 2010 - Business Computer Skills **Credits: (1)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)**
- QUAN 2400 - Business Calculus **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- **Elective Credits (3)**

# Economics (BS)

- **Program Prerequisite:** Not required.
- **Minor:** See specific programs.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required economics courses with a grade of "C-" or higher. In addition, the cumulative Foundations GPA (ECON 2010, ECON 2020, QUAN 2600), major GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A total of 40 upper division credit hours are required (courses numbered 3000 and above).

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, Economics majors must register for ECON 2899 (for non-business Economics majors only). Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Economics major will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions.

*MATH 1050 is a prerequisite for ECON 2010, QUAN 2400, and QUAN 2600. Students seeking a major in Economics should plan to take the necessary mathematics courses as early as possible in their program of study.*

## Course Requirements for Economics BS Degree

(see also Alternative Emphases)

School of Business & Economics Courses Required (25 credit hours)

- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- ECON 2899 - Economics Foundations and Admission Assessment **Credits: (0)**
- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**
- ECON 4970 - Introduction to Research Methods **Credits: (1)**
- ECON 4980 - Research Methods **Credits: (3)**
- QUAN 2400 - Business Calculus **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- QUAN 3610 - Business Statistics II **Credits: (3)**

## Upper Division Elective Courses (15 credit hours)

*Select from the following*

- ECON 3090 - History of Economic Thought **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3410 - Women in the World Economy **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4320 - Industrial Organization **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- ECON 4550 - Introduction to Econometrics **Credits: (3)**
- ECON 4560 - Mathematical Economics **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**

Note:

A **minor** taken from the College of Behavioral and Social Sciences, or other minor program approved in advance by the department chairperson is required.

## Alternative Emphases

A summary of the three alternative emphasis areas that may be pursued for the Economics Bachelor's Degree follow. A student's program of study must be approved by the Economics Department Chair.

### Quantitative Economics Emphasis

School of Business & Economics Courses Required (28 credit hours)

- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- ECON 2899 - Economics Foundations and Admission Assessment **Credits: (0)**
- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**
- ECON 4550 - Introduction to Econometrics **Credits: (3)**
- ECON 4560 - Mathematical Economics **Credits: (3)**
- ECON 4970 - Introduction to Research Methods **Credits: (1)**
- ECON 4980 - Research Methods **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)** \*
- QUAN 3610 - Business Statistics II **Credits: (3)** \*

Note:

\* *MATH 3410 and MATH 3420, Probability and Statistics (3 each) can substitute for QUAN 2600 & QUAN 3610.*

Required Math Courses (15 or 16 credit hours)

- MATH 1210 - Calculus I **Credits: (4)**
- MATH 1220 - Calculus II **Credits: (4)**
- MATH 2210 - Calculus III **Credits: (4)**
  
- MATH 2250 - Linear Algebra and Differential Equations **Credits: (4)** or
- MATH 2270 - Elementary Linear Algebra **Credits: (3)**

Electives (12 credit hours)

*Select from the following*

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ECON 3090 - History of Economic Thought **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3410 - Women in the World Economy **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4320 - Industrial Organization **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- MATH 3120 - Foundations of Euclidean and Non-Euclidean Geometry **Credits: (3)**
- MATH 3270 - Linear Algebra **Credits: (3)**
- MATH 4110 - Modern Algebra I **Credits: (3)**

Note:

*Due to the cross-disciplinary nature of this program, no minor is required.*

## Economics with Legal Studies Emphasis

Required Courses (40 credit hours)

- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- ECON 2899 - Economics Foundations and Admission Assessment **Credits: (0)**
- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**
- ECON 4970 - Introduction to Research Methods **Credits: (1)**
- ECON 4980 - Research Methods **Credits: (3)**
- QUAN 2400 - Business Calculus **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- QUAN 3610 - Business Statistics II **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**

- PHIL 1250 HU - Critical Thinking **Credits: (3)** or
- PHIL 2200 - Deductive Logic **Credits: (3)**
  
- MGMT 3200 - Managerial Communications **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)** or
- ENGL 3100 - Professional and Technical Writing **Credits: (3)**
  
- CJ 4065 - Law and Society **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**

Upper Division Economics Elective Courses (6 credit hours)

*Select from the following*

- ECON 3090 - History of Economic Thought **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3410 - Women in the World Economy **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4320 - Industrial Organization **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- ECON 4550 - Introduction to Econometrics **Credits: (3)**
- ECON 4560 - Mathematical Economics **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**

Law Courses (6 credit hours)

*Select from the following*

- BSAD 3200 - Legal Environment of Business **Credits: (3)**
- BSAD 4210 - Survey of Business Law **Credits: (3)**
- CHF 3150 - Consumer Rights and Responsibilities **Credits: (3)**
- CJ 1330 - Criminal Law and Courts **Credits: (3)**
- CJ 2350 - Laws of Evidence **Credits: (3)**
- COMM 3650 - Communication Law **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**

Law Electives (6 credit hours)

*Select from the following*

- COMM 1270 - Analysis of Argument **Credits: (3)**
- COMM 3120 - Advanced Public Speaking **Credits: (3)**
- CJ 3270 - Theories of Crime and Delinquency **Credits: (3)**
- HIST 3210 - U.S. Constitutional History **Credits: (3)**
- POLS 4360 - Classical Political Thought **Credits: (3)**
- POLS 4380 - Modern Political Thought **Credits: (3)**

- POLS 4600 - American Congress **Credits: (3)**
- POLS 4750 - Public Policy Analysis **Credits: (3)**

Note:

*Due to the cross-disciplinary nature of this program, no minor is required.*

## International Economics Emphasis

School of Business & Economics Courses Required (31 credit hours)

- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- ECON 2899 - Economics Foundations and Admission Assessment **Credits: (0)**
- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**
- ECON 4970 - Introduction to Research Methods **Credits: (1)**
- ECON 4980 - Research Methods **Credits: (3)**
- QUAN 2400 - Business Calculus **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)**
- QUAN 3610 - Business Statistics II **Credits: (3)**

and a minimum of two of the following:

- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**

Note:

*If all three courses are taken, the third course may fulfill the Economics elective.*

Elective Courses (minimum of 15 credit hours)

*Choose at least one class from each of the four groups*

Economics (minimum of 3 credit hours)

- ECON 3090 - History of Economic Thought **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3410 - Women in the World Economy **Credits: (3)**
- ECON 4320 - Industrial Organization **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- ECON 4550 - Introduction to Econometrics **Credits: (3)**
- ECON 4560 - Mathematical Economics **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**

Political Science/Philosophy (minimum of 3 credit hours)

- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 3140 - Foreign Policy of the United States **Credits: (3)**
- POLS 3210 - Politics and Governments of Europe **Credits: (3)**
- POLS 3220 - Politics and Governments of Asia **Credits: (3)**
- POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**
- POLS 4160 - Topics in World Politics **Credits: (3)**
- POLS 4180 - International Law and Organization **Credits: (3)**
- POLS 4190 - Theories of International Politics **Credits: (3)**
- POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**
- PHIL 3550 - Philosophy of Eastern Religion **Credits: (3)**

Geography (minimum of 3 credit hours)

- GEOG 3060 - World Environmental Issues **Credits: (3)**
- GEOG 3540 - Geography of Latin America **Credits: (3)**
- GEOG 3590 - Geography of Europe **Credits: (3)**
- GEOG 3620 - Geography of Russia and the Former USSR **Credits: (3)**
- GEOG 3640 - Geography of Asia **Credits: (3)**
- GEOG 3660 - Geography of China and Japan **Credits: (3)**
- GEOG 3740 - Geography of Africa **Credits: (3)**

History (minimum of 3 credit hours)

- HIST 4260 - Twentieth-Century Europe **Credits: (3)**
- HIST 4320 - Russia since 1917 **Credits: (3)**
- HIST 4340 - History of England since 1714 **Credits: (3)**
- HIST 4350 - History of Modern Germany **Credits: (3)**
- HIST 4370 - History of Modern France 1789-present **Credits: (3)**
- HIST 4410 - History of Spain and Portugal **Credits: (3)**
- HIST 4450 - History of Modern Eastern Europe since 1815 **Credits: (3)**
- HIST 4510 - Twentieth Century World **Credits: (3)**
- HIST 4530 - Far Eastern History **Credits: (3)**
- HIST 4550 - Southeast Asian History **Credits: (3)**
- HIST 4590 - Middle Eastern History **Credits: (3)**
- HIST 4610 - History of Africa **Credits: (3)**
- HIST 4650 - Modern Latin America **Credits: (3)**
- HIST 4670 - History of Mexico **Credits: (3)**

Note:

*Given the broad international electives required, no minor is required.*

# Economics, Business (BS)

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations." (Refer to the John B. Goddard School of Business & Economics Requirements.)
- **Minor:** None required.
- **Grade Requirements:** Candidates for the bachelor of science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, Goddard School (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper division credit hours are required (courses numbered 3000 and above).

## Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899 or ECON 2899 (for non-business Economics majors only). Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the Business Economics major will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions.

*MATH 1050 is a prerequisite for ECON 2010, QUAN 2400, and QUAN 2600. Students seeking a major in Economics should plan to take the necessary mathematics courses as early as possible in their program of study.*

## Major Course Requirements for BS Degree

### John B. Goddard School of Business & Economics Requirements

- Liberal Support Curriculum **(10)**
- Business Foundations **(16)**
- BSAD 2899 Business Foundations and Admission Assessment **(0)**
- Business Core **(37-38)**

### Business Courses Required (9-10 credit hours)

- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**
- ECON 4980 - Research Methods **Credits: (3)** (Prerequisite ECON 4970) \* OR
- ECON 4860 - Economics Internship **Credits: (1-3)**

Note:

\*ECON 4970 and 4980 will complete the communication requirement as part of the business core as well as the required business course for the Business Economics major.

### Elective Courses (12 credit hours)

*Select from the following*

- ECON 3090 - History of Economic Thought **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3410 - Women in the World Economy **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4320 - Industrial Organization **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- ECON 4550 - Introduction to Econometrics **Credits: (3)**
- ECON 4560 - Mathematical Economics **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**

## International Business Economics (BS)

The International Business Economics program is intended for business and economics majors who are strongly interested in working for a multinational business organization or in employment outside of the United States. Apart from building strong foundations in all business disciplines, the program is designed to provide students with study abroad and professional experiences that are complemented with foreign language skills.

- **Program Prerequisites:** Most business and economics courses with numbers above 3000 require formal admission to the John B. Goddard School of Business & Economics and completion of ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, and QUAN 2600. These six courses are referred to collectively as "Business Foundations".
- **Minor:** None required.
- **Grade Requirements:** Candidates for the Bachelor of Science degree must complete all prerequisite and required business and economics courses with a grade of "C-" or higher. In addition, the cumulative Business Foundations GPA, John B. Goddard School of Business & Economics (major) GPA, and the overall university GPA must be 2.5 or higher.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. The required 40 upper-division credit hours (courses numbered 3000 and above) are included in the School and major requirements.

### Advisement

Advisement is strongly encouraged for all Goddard School majors and minors. See more information on available advising resources in the John B. Goddard School of Business & Economics section of this catalog.

## Admission Requirements

Acceptance to the John B. Goddard School of Business & Economics is required for students pursuing a Bachelor of Science or Associates of Science as well as students pursuing minors in Accounting or Economics. To be admitted, students must register for BSAD 2899 or ECON 2899 (for non-business Economics majors only). Students may obtain information regarding admissions from the Goddard School Advising Center, WB 211, (801) 626-6534.

## General Education

Refer to Degree Requirements for the University Bachelor of Science requirements. The following courses required for the International Business Economics major will also satisfy general education requirements: ENGL 2010 (Composition); MATH 1050 (Quantitative Literacy); ECON 2010 or ECON 2020 (Social Science); ECON 1740 is recommended to fulfill the Senate Bill Requirement in American Institutions.

*MATH 1050 is a prerequisite for ECON 2010, QUAN 2400, and QUAN 2600. Students seeking a major in Economics should plan to take the necessary mathematics courses as early as possible in their program of study.*

## Major Course Requirements for BS Degree

This program of study requires students to complete a study abroad experience (at least one semester of study at an accredited university outside of the United States or participation in a minimum of 6 credits of study abroad courses) and a foreign language requirement.

## John B. Goddard School of Business & Economics Requirements

### Liberal Support Curriculum (22 or 23)

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**
- MATH 1050 QL - College Algebra **Credits: (4)**
- Completion of the Language Requirement as defined for the Bachelor of Arts Degree (can be up to 12 credits).

### Business Foundations (16)

### Business Core (37-38)

## Business Courses Required (12-13 credit hours)

- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)** OR
- ECON 3200 - Money and Banking **Credits: (3)** OR
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 4980 - Research Methods **Credits: (3)** (Pre-Requisite ECON 4970 - Introduction to Research Methods **Credits: (1)**) OR
- ECON 4860 - Economics Internship **Credits: (1-3)**
- MIS 2020 - Introduction to Information Systems **Credits: (3)** OR
- MIS 4850 - Information Systems & Technology Study Abroad **Credits: (1-3)**

Note:

\*ECON 4970 and 4980 will complete the Communication requirement as part of the business core as well as the required business course for the International Business Economics major. MIS 2020 will complete the IST 2020 as part of the business core as well as the required business course of the International Business Economics major.

## **Economics Elective Courses (6 credit hours)**

*Select from the following*

- ECON 3090 - History of Economic Thought **Credits: (3)**
- ECON 3110 - International Trade **Credits: (3) (if not chosen as an international elective)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3) (if not chosen as a required business course or international elective)**
- ECON 3200 - Money and Banking **Credits: (3) (if not chosen as a required business course)**
- ECON 3400 - Labor Economics **Credits: (3)**
- ECON 3410 - Women in the World Economy **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4320 - Industrial Organization **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- ECON 4550 - Introduction to Econometrics **Credits: (3)**
- ECON 4560 - Mathematical Economics **Credits: (3)**
- ECON 4800 - Independent Research **Credits: (1-3)**
- ECON 4810 - Experimental Courses **Credits: (1-3)**
- ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**

## **International Elective Courses (6 credit hours)**

*Select from the following*

- ACTG 4140 - Accounting for Global and Complex Entities **Credits: (3) additional pre-requisites apply**
- ECON 3110 - International Trade **Credits: (3) (if not chosen as an economics elective)**
  
- ECON 3120 - International Finance and Monetary Systems **Credits: (3) OR**
- ECON 3150 - Business Studies Abroad-International Finance **Credits: (3) (if not chosen as a required business course or economics elective)**
  
- ECON 4170 - Economic Development **Credits: (3) (if not chosen as an economics elective)**
- MIS 3710 - Global Issues in Information Technology **Credits: (3)**
  
- MGMT 3400 - International Business **Credits: (3) OR**
- BSAD 4850 - Business Administration Study Abroad **Credits: (1-3) OR**
- MGMT 3450 - Business Studies Abroad-International Management **Credits: (3)**
  
- MKTG 3600 - International Marketing **Credits: (3) OR**
- MKTG 3700 - Business Studies Abroad - International Marketing **Credits: (3)**
  
- SCM 4400 - Global Supply Chain Management **Credits: (3)**
- ECON 4850 - Economics Study Abroad **Credits: (1-3)**
- FIN 4850 - Finance Study Abroad **Credits: (1-3)**
- MGMT 4850 - Management Study Abroad **Credits: (1-3)**
- MKTG 4850 - Marketing Study Abroad **Credits: (1-3)**

- ACTG 4850 - Accounting Study Abroad **Credits: (1-3)**
- SCM 4850 - Supply Chain Management Study Abroad **Credits: (1-3)**
- MIS 4850 - Information Systems & Technology Study Abroad **Credits: (1-3) (if not chosen as a required business class)**

## Economics Minor

- **Grade Requirements:** A grade of "C-" or higher in courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 21 credit hours.

### Course Requirements for Minor

Required Courses (21 credit hours)

- ECON 2899 - Economics Foundations and Admission Assessment **Credits: (0)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**
- ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)** or
- ECON 3200 - Money and Banking **Credits: (3)**
- QUAN 2600 - Business Statistics I **Credits: (3)** or
- CJ 3600 - Criminal Justice Statistics **Credits: (3)** or
- GEOG 3600 - Quantitative Methods in Geography **Credits: (3)** or
- PSY 3600 - Statistics in Psychology **Credits: (3)** or
- GERT 3600 - Social Statistics **Credits: (3)** or
- SW 3600 - Social Statistics **Credits: (3)** or
- SOC 3600 - Social Statistics **Credits: (3)**
- Two upper-level ECON or QUAN electives **(6)**

Note:

*MATH 1050 with a grade of "C" or higher is a prerequisite for ECON 2010, QUAN 2600; ECON 2010 is a prerequisite for ECON 2020.*

## Economics Teaching Minor

- **GPA Requirement:** A cumulative GPA of 2.5 or higher in courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 18 credit hours.

*Approval of a minor program by the Economics department chair is required. Students who select the Economics Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education). Advisement is required.*

## Course Requirements for Minor

### Required Courses (18 credit hours)

- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
- ECON 2020 SS - Principles of Macroeconomics **Credits: (3)**
- ECON 1740 AI - Economic History of the United States **Credits: (3)**
- ECON 3200 - Money and Banking **Credits: (3)**
- HIST 4500 - Teaching Social Studies in Grades 5-12 **Credits: (3)**

## Economics Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Jerry and Vickie Moyes College of Education

### Dr. Jack Rasmussen, Dean

The College of Education is committed to developing and maintaining healthy and responsible individuals, families, and schools in a global and diverse society through roles related to the preparation and support of practitioners and educators, service to campus and community, and the discovery and advancement of knowledge.

Students completing baccalaureate programs in the College of Education will be granted the Bachelor of Science degree. The College also grants Master of Education degrees in Curriculum and Instruction and Master of Science degrees in Athletic Training.

**Dean:** Dr. Jack Rasmussen

**Location:** David O. McKay Education Building, Room 228

**Telephone Contact:** Carol VandenAkker, 801-626-6272

**Associate Dean:** Dr. Chloe Merrill

**Location:** David O. McKay Education Building, Room 228

**Telephone Contact:** Jackie Shafer, 801-626-7515

### Department Chairs/Directors

Athletic Training and Nutrition: Dr. Jennifer Turley	801-626-6933
Child and Family Studies: Dr. Paul Schvaneveldt	801-626-7151
Health Promotion and Human Performance: Dr. James Zagrodnik	801-626-7084
Master of Science in Athletic Training: Dr. Valerie Herzog	801-626-7656

Master of Education: Dr. Louise Moulding

801-626-6278

Teacher Education: Dr. Kristin Hadley

801-626-7171

## Grade Appeal Procedures

The evaluation of student performance is recorded on the student's University transcript as part of the student's permanent record. The grade is determined by the faculty member responsible for the course and is based upon factors related to achievement of the course objectives. The grade is considered final unless an appropriate appeal is filed by the student. For the student who is dissatisfied with a grade and has reason to believe the grade issued is incorrect, the following appeal procedure is provided by the College and the University. Steps 1 and 2 of the process are considered informal appeals and are designed to provide an avenue for resolution without a formal hearing.

Within fourteen (14) days of the beginning of the following term, the student shall confer with the instructor who issued the grade and outline the reason/s why he or she believes the grade to be incorrect. (If the faculty member is unavailable, the student must contact the faculty member's chairperson within this same time period to request an extension of the time allowed for this step. Such permission must be obtained in writing.) Within seven (7) days of the student-faculty conference, the faculty member shall advise the student, in writing, of the outcome of the course grade review.

If the student still considers the grade to be incorrect, the student may appeal the grade at the department level. This appeal must be in writing, must follow the procedures outlined in the College's Grade Appeal Process document, and must be filed not later than seven (7) days from the date of the completion of step one. The College Grade Appeal Process document may be picked up from the department office or the office of the dean.

If, after completion of step 2, the student is still dissatisfied, the student should consult with the University's due process officer and may request that the case be reviewed by a Weber State University hearing committee.

## Master of Education in Curriculum and Instruction Program

**Director:** Louise Moulding

**Location:** McKay Education Building, Room 235

**Telephone Contact:** Melinda Bowers 801-626-6278

**Web site:** [weber.edu/meduc](http://weber.edu/meduc)

The mission of the Master of Education in Curriculum and Instruction (MEd) program is to extend the professional knowledge, skills, and attitudes of educators in schools, business, industry, and higher education through advancing the theoretical and practical applications of curriculum and instruction.

The program has a secondary mission of preparing post-baccalaureate students for an entry level teaching license in elementary education, secondary education, or special education. The mission of this part of the program aligns with the Teacher Education Department's mission: We work within our communities to prepare caring, competent educators and to promote equitable, inclusive, and transformative education practices. The program is nationally accredited through the Teacher Education Accreditation Council (TEAC).

# Elementary Teaching Graduate Certificate

**Please be advised: All people seeking a post-baccalaureate teaching license will be admitted into the appropriate graduate certificate program for a teaching license and NOT directly into the Master of Education program. This change will affect all candidates who are seeking admittance for summer semester, 2016. Upon successful completion of the licensing requirements, a candidate may request admittance into the MED program. He or she will need to complete the writing sample and an interview with the MED program director. All coursework must be completed within the six (6) year requirement that is in place for the M.Ed. degree.**

## Admission Requirements for GCT in Elementary Teaching Licensure Candidates

- 1. Admission to Weber State University and application for the Graduate Certificate in Teaching either in Elementary, Secondary, or Special Education.**
- 2. Payment of the Graduate Certificate program application fee.**
- 3. Schedule at least one advisement session with either the program director or the administrative assistant prior to completing the application form.**
- 4. Verification of a bachelor's degree from an accredited university.**
  - o A Content Course Eligibility Checklist must be completed by the director or administrative assistant of the MED program, and all deficient undergraduate coursework must be completed prior to admission into the Graduate Certificate program.**
- 5. Official transcripts from all institutions attended.**
  - o Must have a cumulative GPA of 3.0 or higher from all institutions attended. (This GPA is a USOE licensing requirement. Students with GPAs below 3.00 will not be considered for the program.)**
- 6. Completed Graduate Certificate recommendation forms (3).**
- 7. Take and pass the Praxis II [Elementary Education] as required by the Utah State Office of Education [USOE].**
- 8. Take and pass a background check through USOE and obtain a CACTUS number [it acts like a teacher social security number in the state].**
- 9. Participate in and pass the group interview process conducted by the Teacher Education Dept.**

## GPA Requirements for GCT in Elementary Teaching Students

Following admission to the GCT program, students must maintain a 3.0 cumulative grade point average. Students must earn at least a B- in all licensure classes. Coursework in which Cs, Ds, Es, or UWs are earned is unacceptable and could result in removal from the program, if the problem persists. The 3.0 is a Utah State Office of Education requirement and will not be overlooked.

## Course Requirements for GCT in Elementary Teaching

The 32 credit hour program of study consists of 24 hour credits hours in specific coursework and 8 hours of practicum and student teaching (fieldwork). Practicum is a 2 credit hour "course" which requires a minimum of 60 clock hours in an elementary classroom. Student teaching is a 6 credit hour "course" which requires a minimum of 60 full teaching days in elementary classrooms. Successfully completing this coursework and fieldwork will result in an elementary, level 1 teaching license for the state of Utah. Student teaching/fieldwork courses will not count as credit towards the M.Ed. degree.

## Required Courses

- MED 6020 - Diversity in Education **Credits: (2)**
- MED 6050 - Curriculum Design, Evaluation & Assessment **Credits: (3)**
  
- MED 6110 - Introduction to Classroom Management **Credits: (3)** or
- MED 6120 - Advanced Classroom Management **Credits: (3)**
  
- MED 6229 - Instructional Technology for Pre-service Teachers **Credits: (2)**
- MED 6265 - Foundations of Inclusive Teaching **Credits: (2)**
- MED 6311 - Content Instruction in the Elementary School: Science **Credits: (2)**
- MED 6312 - Content Instruction in the Elementary School: Mathematics **Credits: (2)**
- MED 6313 - Content Instruction in the Elementary School: Social Studies **Credits: (2)**
- MED 6314 - Reading Instruction in Elementary Schools **Credits: (2)**
- MED 6316 - Language Arts Instruction in Elementary Schools **Credits: (2)**
- MED 6317 - Arts Integration for Elementary Teachers **Credits: (2)**
- MED 6860 - Practicum in Education **Credits: (1-4)**
- MED 6870 - Student Teaching in Elementary Education for MED Students **Credits: (3-6)**

## Secondary Teaching Graduate Certificate

**Please be advised: All people seeking a post-baccalaureate teaching license will be admitted into the appropriate graduate certificate program for a teaching license and NOT directly into the Master of Education program. This change will affect all candidates who are seeking admittance for summer semester, 2016. Upon successful completion of the licensing requirements, a candidate may request admittance into the MED program. He or she will need to complete the writing sample and an interview with the MED program director. All coursework must be completed within the six (6) year requirement that is in place for the M.Ed. degree.**

### Admission Requirements for GCT in Secondary Teaching Licensure Candidates

1. **Admission to Weber State University and application for the Graduate Certificate in Teaching either in Elementary, Secondary, or Special Education.**
2. **Payment of the Graduate Certificate program application fee.**
3. **Schedule at least one advisement session with either the program director or the administrative assistant prior to completing the application form.**
4. **Verification of a bachelor's degree from an accredited university.**
  - **The degree must be in a recognized content major (or equivalent coursework) in a discipline taught in Utah secondary schools and for which WSU can recommend you for a secondary teaching license.**
  - **A Subject Course Eligibility Checklist must be completed by the director or administrative assistant of the MED program, and all deficient undergraduate coursework must be completed prior to admission into the Graduate Certificate program.**
  - **Minors cannot be used for a teaching license! If you wish to license in your minor, please see the MED director or advisor for a list of courses you must take prior to acceptance**

into the program.

5. **Official transcripts from all institutions attended.**
  - **Must have a cumulative GPA of 3.0 or higher from all institutions attended. (This GPA is a USOE licensing requirement. Students with GPAs below 3.00 will not be considered for the program.)**
6. **Completed Graduate Certificate recommendation forms (3).**
7. **Take and pass the Praxis II [subject-area test(s)] as required by the Utah State Office of Education [USOE].**
8. **Take and pass a background check through USOE and obtain a CACTUS number [it acts like a teacher social security number in the state].**
9. **Participate in and pass the group interview process conducted by the Teacher Education Dept.**

### **GPA Requirements for GCT in Secondary Teaching Students**

Following admission to the GCT program, students must maintain a 3.0 cumulative grade point average. Students must earn at least a B- in all licensure classes. Coursework in which Cs, Ds, Es, or UWs are earned is unacceptable and could result in removal from the program, if the problem persists. The 3.0 is a Utah State Office of Education requirement and will not be overlooked.

### **Course Requirements for GCT in Secondary Teaching**

The 25+ credit hour program\* of study consists of 16 hour credit hours in specific coursework and 8 hours of practicum and student teaching (fieldwork). Practicum is a 2 credit hour "course" which requires a minimum of 60 clock hours in a secondary, subject-specific classroom. Student teaching is a 6 credit hour "course" which requires a minimum of 60 full teaching days in secondary classrooms. Successfully completing this coursework and fieldwork will result in a secondary, level 1 teaching license for the state of Utah. Student teaching/fieldwork courses will not count as credit towards the M.Ed. degree.

## **Required Courses**

- MED 6020 - Diversity in Education **Credits: (2)**
- MED 6050 - Curriculum Design, Evaluation & Assessment **Credits: (3)**
- MED 6060 - Instructional Strategies **Credits: (2)**
  
- MED 6110 - Introduction to Classroom Management **Credits: (3)** or
- MED 6120 - Advanced Classroom Management **Credits: (3)**
  
- MED 6229 - Instructional Technology for Pre-service Teachers **Credits: (2)**
- MED 6265 - Foundations of Inclusive Teaching **Credits: (2)**
- MED 6320 - Content Area Literacy Instruction **Credits: (3)**
- MED 6860 - Practicum in Education **Credits: (1-4)**
- MED 6880 - Student Teaching in Secondary Education for MED Students **Credits: (3-6)**

### **\*Required Content Area Methods Course(s)**

Every secondary licensing candidate MUST complete one or more content methods teaching course(s) in their subject area. These courses can add between 3-7 credits of requirements towards the license. Most of these courses are offered in undergraduate programs on campus. Please seek advisement from the MED director or advisor.

# Special Education Teaching Graduate Certificate

**Please be advised: All people seeking a post-baccalaureate teaching license will be admitted into the appropriate graduate certificate program for a teaching license and NOT directly into the Master of Education program. Upon successful completion of the licensing requirements, a candidate may request admittance into the MED program. He or she will need to complete the writing sample and an interview with the MED program director. All coursework must be completed within the six (6) year requirement that is in place for the M.Ed. degree.**

## Admission Requirements for Licensure Candidates

1. **Admission to Weber State University and application for the Graduate Certificate in Teaching either in Elementary, Secondary, or Special Education.**
2. **Payment of the Graduate Certificate program application fee.**
3. **Verification of a bachelor's degree from an accredited university.**
  - *A Content Course Eligibility Checklist must be completed by the director or administrative assistant of the MED program, and all deficient undergraduate coursework must be completed prior to admission into the Graduate Certificate program.*
4. **Official transcripts from all institutions attended.**
  - **Must have a cumulative GPA of 3.0 or higher from all institutions attended. (This GPA is a USOE [Utah State Office of Education] licensing requirement.)**
5. **Completed Graduate Certificate recommendation forms (3).**
6. **Passing score (all sections) Praxis II test - Elementary subjects**
7. **Take and pass a background check through USOE and obtain a CACTUS number [it acts like a teacher social security number in the state].**
8. **Participate in and pass the group interview process conducted by the Teacher Education Dept.**
9. **Schedule at least one advisement session with either the program director or the administrative assistant prior to completing the application form.**

## Required Courses

- MED 6050 - Curriculum Design, Evaluation & Assessment **Credits: (3)**
- MED 6515 - Foundations in Special Education: Law and Practice **Credits: (3)**
- MED 6530 - Principles and Applications of Special Education Assessment **Credits: (3)**
- MED 6540 - Advanced Managing Student Behavior **Credits: (3)**
- MED 6580 - Advanced Learning Strategies and Transition for Special Education Students **Credits: (3)**
  
- MED 6565 - Advanced Instructional Methods and Practices: English Language Arts **Credits: (3)** concurrently with
- MED 6860 - Practicum in Education **Credits: (1-4) (1) \***
  
- MED 6575 - Advanced Instructional Methods and Practices: Mathematics **Credits: (3)** concurrently with
- MED 6860 **(1) \***
  
- MED 6890 - Student Teaching in Special Education for MED Students **Credits: (4-6) \*\***

***\*MED 6860 is a variable, repeatable credit course and is to be taken twice: once with MED 6565 and once with MED 6575.***

***\*\* MED 6890 Successfully complete 60 days of student teaching with an assigned cooperating teacher (6 credits); however, if you have been hired in a full-time teaching position prior to completing student teaching please meet with the MED director for alternative credits.***

## **Master of Education in Curriculum and Instruction (MEd)**

**If you are seeking a teaching license, please go to the appropriate Graduate Certificate in Teaching page.**

### **Admission Requirements**

The MEd program is selective with a limited number of openings available for qualified students. Admission deadlines are January 15 for Summer Semester, May 15 for Fall Semester, and September 15 for Spring Semester. For additional information contact the Master of Education office, (801) 626-6278.

The following items are required for the MEd only:

1. Admission to Weber State University and application for the MEd Program.
2. Payment of the MEd program application fee.
3. Verification of a bachelor's degree from an accredited institution.
4. Official transcripts from all institutions attended.
5. Completed MEd recommendation forms (3).
6. Minimum GPA of 3.25 either cumulative or on the last 60 semester hours (90 quarter hours) of approved undergraduate/graduate course work.  
*or*  
Minimum GPA of 3.00 to 3.24 on the last 60 semester hours (90 quarter hours) and a minimum score of either 400 on the Miller's Analogies Test (MAT) **or** 152 on the Verbal Reasoning and 145 on the Quantitative Reasoning portions of the Graduate Record Examination (GRE). Students with GPAs below 3.00 will not be considered for the program.
7. Writing proficiency assessment.
8. Interview with Teacher Education faculty members.
9. Provisional admittance (first 21 hours).

*Note: It is recommended applicants have an equivalent of one year's full-time professional teaching experience.*

### **Additional Requirements for International Students**

- Please seek advisement/assistance from WSU's International Student and Scholar Center at 801-626-6853 or [sis@weber.edu](mailto:sis@weber.edu)
- TOEFL score of 223 (computer-based) or 85 (internet-based) or IELTS 6.5.
- Oral language proficiency assessment.
- Weber State University-accepted bachelor's degree.
- Courses evaluated into the equivalent of American credits and letter grades.
- Contact WSU International Student Services Office and submission of a WSU International Student Application **and** a Graduate Financial Guarantee form.
- If the overall GPA is lower than 3.25 but better than a 3.0, or if the evaluated transcript cannot be calculated for the last 60 semester hours (90 quarter hours) of course work, the Graduate Record Examination must be taken with a minimum score of 145 on the Quantitative Reasoning, 152 on the Verbal Reasoning, and 4 on the Analytical Writing portions. Students with GPAs below 3.00 will not be considered for the program. All degree requirements must be completed within a six-year timeline based on the first semester of coursework.

## GPA Requirements for all MEd Students

Following admission to the MEd program, students must maintain a 3.0 cumulative grade point average. Students must earn at least a B- in all core classes. Coursework in which Ds, Es, or UWs are earned is unacceptable and could result in removal from the program if the problem persists.

## Course Requirements for MEd

The 36 hour program of study consists of a 22-hour professional core requirement and 14 hours of graduate committee-approved professional education electives and/or courses in the student's discipline. A portion of the core requirement is the completion of a Master's project/thesis, which is an application of knowledge and skills.

### Professional Education Core Requirements (22 credit hours)

#### Foundations

- MED 6000 - Fundamentals of Graduate Study **Credits: (2)**
- MED 6010 - Advanced Historical Foundations **Credits: (2)**
- MED 6020 - Diversity in Education **Credits: (2)**
- MED 6030 - Advanced Educational Psychology **Credits: (2)**

#### Methodology

- MED 6050 - Curriculum Design, Evaluation & Assessment **Credits: (3)**
- MED 6060 - Instructional Strategies **Credits: (2)**

#### Scholarship

- MED 6080 - Conducting Educational Research **Credits: (3)**
- MED 6085 - Developing a Project Proposal **Credits: (2)**
- MED 6090 - Master's Project **Credits: (3)**
- MED 6091 - Graduate Synthesis **Credits: (1)**

### Electives (14 credit hours)

Electives must be graduate level (i.e. 6000 level credit) and may be selected from offerings in professional education, discipline areas, or specialized courses leading to endorsements in reading, gifted and talented, ESL, or ESL/dual language. At the present time Weber State offers graduate level content courses in English, HPHP, math, history, science, NTM, and foreign language. The graduate office has listings of approved elective courses and endorsement requirements.

### Optional Electives for the Early Childhood Coaching Credential\*

- MED 6201 - Coaching EC/ECE Professionals: Foundation & Organization of Coaching Application: Organization & Self Reflection **Credits: (3)**
- MED 6202 - Coaching EC/ECE Professionals: Connecting Awareness with Application & Deepening of Practice **Credits: (3)**
- MED 6203 - Coaching EC/ECE Professionals: Attuning for Personal and Organizational Change **Credits: (3)**

***\*This series of coaching courses are designed to meet Utah requirements for an EC Coaching Credential with each course building on the previous. If taking the above courses for the coaching certificate, you must take these courses sequentially.***

# Master of Science in Athletic Training Program

**Director:** Valerie W. Herzog, EdD, LAT, ATC

**Location:** 302D Swenson Building

**Telephone:** 801-626-7656

**Faculty:** Valerie W. Herzog, EdD, LAT, ATC; Conrad Gable, PhD, LAT, ATC; Matthew Donahue, PhD, LAT, ATC

The WSU Master of Science in Athletic Training (MSAT) degree is designed to enable students with a bachelor's degree in an area other than athletic training to obtain eligibility for the Board of Certification (BOC) examination. This program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Graduates of the MSAT are eligible for the Board of Certification (BOC) examination.

The program provides students with knowledge and skills in the prevention, evaluation, treatment, and rehabilitation of musculoskeletal injuries and general medical conditions. The Master of Science in Athletic Training program is specifically designed to prepare students for a career in health care as a certified athletic trainer. Athletic trainers are currently employed in colleges and universities, public and private high schools, corporations, rehabilitation clinics, professional sports organizations, the military, factories, and hospitals ([www.nata.org](http://www.nata.org) - National Athletic Trainers' Association).

## Master of Science in Athletic Training (MS)

### Minimum Admissions Requirements

- Bachelor's degree
- Admission to Weber State University (Students apply only to the MSAT and will be admitted to WSU and the MSAT concurrently. Students do NOT need to apply through the WSU general admissions process)
- GRE scores (only required if GPA is below a 3.0)
- Minimum 3.0 GPA\*
- Submit Graduate Athletic Training Student Application through ATCAS (found online at: <https://atcas.liaisoncas.com>)
- Submit Application Essay/Personal Statement (see online application in ATCAS for details)
- Two References - at least one reference must be a college-level instructor
- Grade of C or better in all prerequisite courses (all prerequisites must have been completed within the last 10 years prior to application)\*\*
- Documentation of at least 50 observations hours with a Certified Athletic Trainer (or similar healthcare provider for international applicants)
- Program Interview - in person or over the phone
- Completed Technical Standards Form - can be completed after admission (Form can be found at: <https://www.weber.edu/msat/admission.html>)
- Official Transcripts from ALL other colleges/universities attended (send directly to ATCAS)
- Proof of immunizations (completed after admission)
- Hepatitis-B vaccination (can be completed in first semester if deficient)
- Current Emergency Medical Response and CPR/AED for Professional Rescuers and Healthcare Providers certification cards (can be completed in first semester if deficient)
- Pay Application fee

\* Grade point averages between 2.75 and 2.99 will be considered if GRE scores are above average.

\*\* Students who are deficient in four or fewer prerequisite courses may be admitted on a conditional basis if the courses can be added to the schedule while still meeting the prerequisites prior to each graduate course.

The priority application deadline is January 15 for the following fall semester. Applications received after the deadline will be considered on a rolling admissions basis if available slots still exist. Students are encouraged to apply by the January 15th deadline, as the program will likely reach capacity at that point. The online application may be accessed online at: <https://atcas.liasoncas.com>.

## Post-Admission Requirements

After formal admission to the Athletic Training Master's degree program, students are required to complete an FBI background check and drug test. The WSU Master of Science in Athletic Training Program enters into Affiliation Agreements with multiple healthcare facilities and schools throughout the state. These agreements provide WSU MSAT students and faculty authorized access to facility resources and patients. In response to stipulations contained within one or more of these Agreements, the WSU MSAT requires students admitted to the program to submit to an FBI level criminal background check as well as a urine drug test. This screening process has been mandated by the WSU MSAT in an effort to more effectively protect the safety and well-being of the patients, clients, and residents of those facilities, and is fully supported by the Department of Athletic Training and Nutrition and the MSAT faculty.

Both the background check and the drug test will be completed during the student's first semester. The expenses (approximately \$80) will be paid for by the student.

## Additional Admission Requirements for International Students

All international students and any applicants educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit an official score from the Test of English as a Foreign Language (TOEFL) which is not more than two years old and on which a minimum score of 563 (paper-based), or 85 (internet-based) with a minimum score of 17 in each section, has been earned. The MSAT Program also accepts the International English Language Testing System (IELTS) - applicants may have an official score report sent to the MSAT Program Director which is not more than two years old and on which a minimum score of 6.5 overall, with a minimum of 6.0 in each section, has been earned.

Students who have not earned the minimum required English proficiency scores may still be admitted conditionally. These students would be required to begin ESL and other coursework at Weber State University one semester prior to beginning MSAT coursework. During this preparatory semester, students would be required to complete, with a grade of a C+ or better, approximately 8 credits of ESL courses and complete, with a grade of C or better, approximately 6 credits of MSAT prerequisite courses. The MSAT Program Director will determine which ESL and prerequisite courses are most appropriate based on the student's undergraduate coursework and English proficiency scores.

Minimum English Proficiency scores for conditional admissions:

TOEFL (internet-based) - 70

TOEFL (paper-based) - 525

IELTS - 6.0

## Selection Process

1. All applications will be ranked by using a numerical scale to rate the elements of the application.
2. Students receiving the highest scores in the rating process will be invited to enter the Master of Science in Athletic Training Program. The selection committee is comprised of the MSAT faculty. The number of students chosen to enter the program each year will vary, in compliance with accreditation guidelines related to professor and preceptor-to-student ratios. Selection into the MSAT is competitive and satisfaction of the minimum requirements does not guarantee admission.
3. Applicants not invited to enter the MSAT may reapply the following year. All applicants who reapply must meet all requirements in effect at the time of reapplication. Students who choose to reapply must review the program website and/or catalog for current admission requirements at that time.
4. All students selected for the MSAT must provide evidence of being able to meet the **Technical Standards for Admission of the program. Only those students who verify that they can meet those technical standards, with or without reasonable accommodations, will be allowed to enter the**

**program.** The Technical Standards can be found on the program's website at: <https://www.weber.edu/msat/admission.html>

## Retention Requirements

1. After students are selected into the MSAT, retention in the program will be based on the following criteria:
  1. Grade "B-" or better in all required MSAT courses (*includes Graduate Practicum courses*).
  2. Maintain an overall Weber State University Graduate GPA of 3.0.
  3. Adhere to MSAT Athletic Training Student Handbook Policies.
2. Students who fail to meet the retention criteria will be placed on probation in the MSAT program for one semester. If standards are not met by the end of the probationary period, the student will be dismissed from the program. Students who receive a grade lower than a "B-" in any required MSAT course must repeat that course and receive a grade of "B-" or higher to remain in the program. Failure to repeat the course (*when offered*) will result in dismissal from the program. Students who receive a grade lower than a "B-" in two or more MSAT courses will be dismissed from the program.

## Advisement

Students enrolled in the MSAT program will be assigned a faculty advisor. Students will be encouraged to meet with their faculty advisor at least once a semester and to engage in dialogue when necessary regarding academic success, clinical assignments, and/or personal or professional issues.

## Transfer Credits

In compliance with the Higher Education Act, Weber State University only accepts transfer credit from regionally accredited colleges and universities.

Students who have completed graduate athletic training coursework at another CAATE-accredited professional master's degree program in Athletic Training may apply for up to 9 transfer credits. The transfer of graduate credits from non-CAATE-accredited programs will be considered on a case-by-case basis. Approval of all transfer credits requires an official transcript, a copy of the course syllabus, and approval by the WSU MSAT Program Director.

## Prerequisite Course Requirements for MS

Required Prerequisite Courses (32 credit hours)

*(or equivalent courses - syllabi or catalog course description required)*

- AT 2300 - Emergency Response **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- ESS 3500 - Biomechanics **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- PSY 1010 SS - Introductory Psychology **Credits: (3)**
- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- CHEM 1010 PS - Introductory Chemistry **Credits: (3)** (recommended, but not required)

# Course Requirements for MS

## Required Courses (54-55 credit hours)

### Didactic Courses

- MSAT 6080 - Research Methods I **Credits: (3)**
- MSAT 6085 - Research Methods II **Credits: (3)**
- MSAT 6090 - Research Methods III **Credits: (3)**
- MSAT 6200 - Psychology of Sport, Injury & Rehabilitation **Credits: (3)**
- MSAT 6300 - Orthopedic Assessment of Musculoskeletal Injuries: Lower Extremities **Credits: (3)**
- MSAT 6301 - Orthopedic Assessment of Musculoskeletal Injuries: Upper Extremities **Credits: (3)**
- MSAT 6350 - General Medical Conditions and Advances in Athletic Training **Credits: (3)**
- MSAT 6400 - Basic Therapeutic Modalities for Musculoskeletal Injuries **Credits: (3)**
- MSAT 6401 - Advanced Therapeutic Modalities for Musculoskeletal Injuries **Credits: (3)**
- MSAT 6431 - Orthopedic Taping, Casting, & Bracing **Credits: (2)**
- MSAT 6450 - Basic Rehabilitation of Musculoskeletal Injuries **Credits: (3)**
- MSAT 6451 - Advanced Rehabilitation of Musculoskeletal Injuries **Credits: (3)**
- MSAT 6500 - Introduction to Graduate Athletic Training (First Semester) **Credits: (2)**
- MSAT 6600 - Administration and Management in Athletic Training **Credits: (3)**
- MSAT 6700 - Advanced Diagnostic Imaging for the Athletic Training Profession **Credits: (1)**
- MSAT 6998 - Master's Board of Certification (BOC) Exam Preparation **Credits: (1)**

### Clinical Courses

- MSAT 6501 - Graduate Practicum I **Credits: (2)**
- MSAT 6502 - Graduate Practicum II **Credits: (3)**
- MSAT 6503 - Graduate Practicum III **Credits: (3)**
- MSAT 6504 - Graduate Practicum IV **Credits: (3)**

### Electives (must choose one):

- MSAT 6750 - Evidence-Based Evaluation and Treatment of the SI Joint and Spine **Credits: (2)**
- MSAT 6999 - Critical Thinking for Musculoskeletal Injury Management **Credits: (1)**

### Optional Elective

- MSAT 6095 - Research Methods IV **Credits: (1-3)**

# Department of Athletic Training and Nutrition

**Department Chair:** Jennifer Turley, PhD

**Location:** Reed K. Swenson Building, Room 302E

**Telephone Contact:** Raquel Clay 801-626-6741

**Professors:** Rodney Hansen, Valerie Herzog, Joan Thompson, Jennifer Turley; **Assistant Professors:** David Aguilar-Alvarez, Matthew Donahue, Conrad Gabler, C. Collin Herb; **Instructor:** Hannah Stedje

The Department of Athletic Training and Nutrition (ATN) in the Jerry and Vickie Moyes College of Education offers programs that educate students on prevention, evaluation and management of injuries and optimal nutrition for development, athletic performance and health. The variety of teaching environments and facilities are supported by faculty with diverse expertise which create quality-learning communities that offer graduate and undergraduate students exceptional educational experiences. The state-of-the-art facilities - including fully equipped laboratories (biomechanics, nutritional biochemistry, foods, and athletic training), a networked computer lab, swimming and hydrotherapy pool, and ample indoor and outdoor fitness and activity areas - provide outstanding arenas for student instruction and research. With a curriculum designed to develop professional knowledge and skills, graduates from the department are prepared for careers in allied health care and to work in a variety of educational, health and fitness settings.

Through instruction, scholarship and service, the department of Athletic Training and Nutrition offers a Master of Science degree in athletic training, Bachelor of Science degrees in athletic training and athletic therapy, and a Minor in nutrition education.

The department also supports the efforts of undergraduates seeking the bachelor of integrated studies degree, offering nutrition education and sports medicine as emphases for the BIS Program.

## Mission Statement

The Department of Athletic Training and Nutrition supports and enhances the mission of the University by promoting and integrating into the University experience the applied sciences of athletic training and nutrition through effective and impactful instruction, scholarship and service. This is accomplished by professional preparation and personal service that helps individuals promote health, recovery and an active lifestyle.

See also Master of Science in Athletic Training (MS)

## Athletic Therapy (BS)

The Department of Athletic Training and Nutrition (ATN) offers an undergraduate program in Athletic Therapy. This program is designed for students preparing to enter professional graduate programs in athletic training, physical therapy, occupational therapy, physician's assistant programs, and/or medicine. Students who graduate from this major only will NOT BE ELIGIBLE TO SIT FOR THE BOARD OF CERTIFICATION (BOC) EXAM TO BECOME A CERTIFIED ATHLETIC TRAINER OR ANY OTHER PROFESSIONAL MEDICAL CERTIFICATION EXAM. These students take many of the support courses, professional knowledge courses, and many of the AT major courses (see Course Requirements). However, Athletic Therapy students DO NOT take the Clinical Application courses. Instead, these students complete the prerequisites required to enter their chosen graduate program.

- **Program Prerequisites:** Make application and be accepted to Weber State University. Formally declare Athletic Therapy as an intended major with the ATN advisement coordinator. (See Admission Requirements below.)
- **Minor:** Not required.
- **Grade Requirements:** Grade of "B-" or better in all Athletic Therapy major courses and grade of "C" or better in all support courses and electives in addition to a cumulative GPA of 3.00 or higher in all courses required for this major.

- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation - 40 of which must be upper division (courses numbered 3000 and above).

## Advisement

The Athletic Therapy Program Director serves as the faculty advisor to Athletic Therapy majors. The advisor is available to the student for counseling on grades and progress toward graduation. Athletic Therapy majors must meet with a faculty advisor at least once within the first two weeks of each semester. It is the responsibility of the student to schedule the required meetings with the advisor. The ATN department advisement coordinator will serve as the academic advisor prior to admission to the program, and will assist with advisement through completion of the program of study. Call 801-626-6741 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

1. Before a student can be considered for the Athletic Therapy program, the following application requirements must be met:
  1. Admission to Weber State University.
  2. Submit an Athletic Therapy Student Application and student transcript which demonstrates the following:
    1. Completion of 25 credit hours with a minimum 3.00 Weber State University GPA. Of these 25 credits, the students must demonstrate completion of
      1. HTHS 1110 and HTHS 1111 or ZOOL 2100 and ZOOL 2200
      2. NUTR 1020 LS
      3. PSY 1010 SS
      4. AT 1550 and AT 3300
    2. Grade "B-" or better in all Athletic Therapy major courses and "C" or better in support courses and electives.
2. Applications may be obtained from the Athletic Therapy Program website at <http://www.weber.edu/athletictherapy/Admissions.html>.
3. Applications will be accepted on a rolling admissions. Students who fail to meet admission requirements will not be allowed to enroll in AT 4150, AT 4250, AT 4650, or AT 4800.

## Retention Requirements

1. After students are selected into the Athletic Therapy Major, retention in the program will be based on the following criteria:
  1. Grade "B-" or better in all athletic therapy major courses.
  2. Grade "C" or better in all the support courses and electives.
  3. Students must maintain a Weber State University GPA of 3.0 or higher.
2. Students who fail to meet the retention criteria will be placed on probation in the Athletic Therapy major for one semester. If standards are not met by the end of the probationary period, the student may be dismissed from the major at the discretion of the program director.
  1. Students who receive any grade below a "B-" in an athletic therapy major course must repeat that course and receive a grade of "B-" or higher to remain in the major.
  2. Students who receive any grade below a "C" in an athletic therapy support course or elective must repeat that course and receive a grade of "C" or higher to remain in the major.
  3. Failure to repeat the course (when offered) will result in dismissal from the program at the discretion of the program director.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree (63 credit hours)

### Athletic Therapy Courses (22 credit hours)

- AT 1550 - Introduction to Athletic Therapy **Credits: (1)**
- AT 2300 - Emergency Response **Credits: (3)**
- AT 2175 - Introduction to Sports Medicine **Credits: (3)**
- AT 3300 - Evaluation and Care of Musculoskeletal Injuries: Lower Extremities **Credits: (3)**
- AT 3301 - Evaluation and Care of Musculoskeletal Injuries: Upper Extremities **Credits: (3)**
- AT 4150 - Therapeutic Modalities for Athletic Therapy majors **Credits: (3)**
- AT 4250 - Rehabilitation for Athletic Therapy majors **Credits: (3)**
- AT 4650 - Management for Athletic Therapy majors **Credits: (3)**

### Support Courses (28 credit hours)

- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3) \***
- PSY 1010 SS - Introductory Psychology **Credits: (3) \***
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- ESS 3450 - Structural Kinesiology **Credits: (3)**
- ESS 3500 - Biomechanics **Credits: (3) \***
- ESS 3510 - Exercise Physiology **Credits: (3)**
- ZOOL 2100 - Human Anatomy **Credits: (4) \*\*\***
- ZOOL 2200 LS - Human Physiology **Credits: (4) \*\*\***

### Program Electives (must complete at least 13 credits of electives)

- AT 4890 - Cooperative Work Experience **Credits: (1-6)**  
**\*\* (Minimum of 3 credits required)**
- AT 3080 - Statistics and Evidence-Based Practice **Credits: (3)** or
- GERT 3600 - Social Statistics **Credits: (3)** or
- PSY 3600 - Statistics in Psychology **Credits: (3)**
- AT 3200 - Psychology of Sport, Injury & Rehabilitation **Credits: (3)**
- AT 4800 - Individual Projects **Credits: (1-4)** or
- NUTR 4520 - Directed Undergraduate Nutrition Research **Credits: (1-4)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- ESS 4370 - Clinical Exercise Physiology **Credits: (3)**
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)** or
- NUTR 3420 - Multicultural Health & Nutrition **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- MICR 3603 - Advanced Microbiology for the Health Professions **Credits: (3)**
- PSY 3000 - Child Psychology **Credits: (3)**
- PSY 3010 - Abnormal Psychology **Credits: (3)**
- PSY 3605 - Psychology Statistics Lab **Credits: (1)**

- ZOO 3099 - Teaching the Human Anatomy Laboratory **Credits: (3)** or
- ZOO 4820 - Human Physiology Laboratory Teaching Assistant **Credits: (1)**

Note:

*\* These courses also fulfill General Education or degree requirements.*

*\*\* Some students will be required to complete an FBI background check and drug test prior to completing the work experience. The expenses, approximately \$75, will be paid for by the student. Some students may also be required to secure additional immunizations, including a hepatitis B vaccination, depending on the cooperative work experience site. The expenses, approximately \$40-100, will be paid for by the students.*

*\*\*\* Students may also take HTHS 1110 and HTHS 1111 instead of ZOO 2100 and ZOO 2200. However, it is the student's responsibility to ensure that HTHS 1110 and HTHS 1111 will be accepted as prerequisite courses for their graduate program of choice.*

## Other Pre-Professional Courses

Athletic Therapy Students also generally take the coursework needed for their professional graduate school (athletic training, physical therapy, occupational therapy, physician's assistant, or medicine). These courses typically include CHEM 1110 and CHEM 1120, PHYS 2010 and PHYS 2020, and MATH 1060 (Trigonometry). The prerequisites vary somewhat from one graduate program to another and it is the student's responsibility to ensure that all pre-professional courses fulfill entrance requirements.

# Nutrition Education (BS)

The Department of Athletic Training and Nutrition (ATN) within the Moyes College of Education offers an undergraduate program in Nutrition Education with two emphasis options: Sports Nutrition; and Integrative Nutrition. Students may declare one or both emphases. The Nutrition Education major program prepares students for a variety of career options and for graduate school to pursue advanced degrees.

The Sport's Nutrition Educator graduate will have demonstrated competence and knowledge in chemistry, anatomy, physiology, diet analysis and design, sports and fitness nutrition, diet therapy, lifespan nutrition, research, and related exercise science topics with cultural application and sensitivity for individuals and athletes. Information is provided for typical graduate Registered Dietitian Nutritionist (RDN) program pre-requisites. The prerequisites vary somewhat from one graduate program to another and it is the student's responsibility to ensure that all pre-professional courses fulfill entrance requirements.

Integrative nutrition includes nutrition as it intersects with other related fields to support health and wellbeing of individuals and groups. The Integrative Nutrition Educator graduate will have demonstrated competence and knowledge in diet analysis and design, fitness nutrition, lifespan nutrition, sustainable cooking, and related exercise science, health, child and family studies, botany, microbiology, physical education, recreation, and/or psychology topics with cultural application and sensitivity.

- **Program Prerequisites:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A GPA of 2.75 or higher in all courses required for this major. The overall GPA must be 2.00 or better. No more than one "D" is acceptable.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a total of 60 credit hours for this major. This includes 12-17 credit hours of required general education requirements. A total of 40 upper division credit hours are required for graduation with 29-30 upper division hours possible within the required courses for the major track options.

## Advisement

All Nutrition Education students are encouraged to meet the ATN department academic advisor at least twice a year. Call 801-626-6696 or send a message to rachelbrock@weber.edu for more information or to schedule an appointment.

## Admissions Requirements

Make application with the ATN Department and declare the program of study (see Enrollment Services and Information).

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree (60 credit hours)

Complete the Nutrition Education required core, select the Integrative Nutrition emphasis or Sports Nutrition emphasis and complete the required, elective, and general education and support courses in the selected emphasis.

Nutrition Education Required Core Courses (17 credit hours, 12 Upper Division credits)

- NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**
- NUTR 2420 - Childhood and Adolescent Nutrition **Credits: (2)**
- NUTR 3320 - Health and Nutrition in the Older Adult **Credits: (3)**
- NUTR 3420 - Multicultural Health & Nutrition **Credits: (3)**
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**
- NUTR 4320 - Current Issues in Nutrition **Credits: (2)**
- NUTR 4990 - Senior Seminar **Credits: (1)**

## INTEGRATIVE NUTRITION Emphasis

Required General Education Courses (17 credit hours, 0 Upper Division, 17 General Education)

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** or
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- PSY 1010 SS - Introductory Psychology **Credits: (3)** or
- CHF 1500 SS/DV - Human Development **Credits: (3)**

Required Courses (7 credit hours, 2 Upper Division credits)

- NUTR 1240 - Nutrition and Sustainable Cooking **Credits: (3)**
- NUTR 2220 - Prenatal and Infant Nutrition **Credits: (2)**
- NUTR 4860 - Field Experience **Credits: (1-2)** (2 credits required)

Electives (19 credit hours required, 19 Upper Division credits possible, check requirements for Upper Division)

- AT 3080 - Statistics and Evidence-Based Practice **Credits: (3)**
- BTNY 2303 - Ethnobotany **Credits: (3)**
- BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**
- CHF 3150 - Consumer Rights and Responsibilities **Credits: (3)**
- CHF 4400 - The Family in Stress **Credits: (3)**
  
- COMM 3820 - Persuasive Communication **Credits: (3)** or
- PS 3250 - Business Communication **Credits: (3)** or
- MGMT 3200 - Managerial Communications **Credits: (3)**
  
- HLTH 1110 - Stress Management **Credits: (3)**
- HLTH 2400 - Mind/Body Wellness **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 4700 - Wellness Coaching **Credits: (3)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**
- MICR 3203 - The Immune System in Health & Disease **Credits: (3)**
- NUTR 3020 - Sports Nutrition **Credits: (3)**
- NUTR 4440 - Advanced Human Nutrition **Credits: (3)**
- NUTR 4520 - Directed Undergraduate Nutrition Research **Credits: (1-4)** (with up to 6 credits allowed in the degree)
- PE 1080 - Strength Training, Level I **Credits: (1)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**
  
- PSY 3000 - Child Psychology **Credits: (3)** or
- PSY 3140 - Adolescent Psychology **Credits: (3)** or
- PSY 3560 - Group Dynamics and Counseling **Credits: (3)**
  
- PSY 3255 - Conditioning, Learning, & Behavior Modification **Credits: (3)**
  
- PS 3203 - Customer Service Techniques **Credits: (3)** or
- PS 3563 - Principles of Sales Supervision **Credits: (3)**
  
- OCRE 3230 - Wilderness Nutrition & Backcountry Cooking **Credits: (4)**

## SPORTS NUTRITION Emphasis

Required General Education and Support Courses (16 credit hours, 12 General Education, 0 Upper Division)

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** (w/ lab)
  
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** or
- ZOOL 2100 - Human Anatomy **Credits: (4)**
  
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** or
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
  
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**

Required Courses (21 credit hours, 11 Upper Division credits)

- CHEM 1220 - Principles of Chemistry II **Credits: (5)** (w/ lab)
- CHEM 2310 - Organic Chemistry I **Credits: (4)**
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**
- CHEM 3070 - Biochemistry I **Credits: (3)**
- NUTR 3020 - Sports Nutrition **Credits: (3)**
- NUTR 3220 - Foundations in Diet Therapy **Credits: (2)**
- NUTR 4440 - Advanced Human Nutrition **Credits: (3)**

Electives (6 credit hours required, 6 Upper Division credits possible)

- AT 2430 - Prevention and Care of Musculoskeletal Injuries **Credits: (3)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**
- ESS 3450 - Structural Kinesiology **Credits: (3)**
- ESS 3500 - Biomechanics **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- ESS 3600 - Measurement and Statistics in Exercise Science **Credits: (3)**
- ESS 4370 - Clinical Exercise Physiology **Credits: (3)**
- NUTR 1120 - Nutrition for the Athlete **Credits: (2)**
- NUTR 1240 - Nutrition and Sustainable Cooking **Credits: (3)**
- NUTR 4520 - Directed Undergraduate Nutrition Research **Credits: (1-4)** (with up to 6 credits allowed in the degree)
- NUTR 4860 - Field Experience **Credits: (1-2)**
- PE 1080 - Strength Training, Level I **Credits: (1)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
  
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)** or
- PSY 3010 - Abnormal Psychology **Credits: (3)** or
- AT 3200 - Psychology of Sport, Injury & Rehabilitation **Credits: (3)**
  
- OCRE 3230 - Wilderness Nutrition & Backcountry Cooking **Credits: (4)**

Additional Suggested Courses Needed for many Graduate Registered Dietitian programs (includes General Education)

- ECON 1010 SS - Economics as a Social Science **Credits: (3)** or
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)** or
- SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)** or
- PSY 1010 SS - Introductory Psychology **Credits: (3)**
  
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- MATH 1040 QL - Introduction to Statistics **Credits: (3)**
- MATH 1050 QL - College Algebra **Credits: (4)**
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**

## Nutrition Education (BIS)

- **Program Prerequisite:** Prior departmental approval is required.
- **Grade Requirements:** A GPA of 2.5 or better in courses used toward the minor.
- **Credit Hour Requirements:** A total of 18 credit hours is required, of which a minimum of 7 credit hours must be upper division (courses numbered 3000 or higher).

### Course Requirements for BIS Emphasis

#### Required Core Courses (7-9 credit hours)

- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**
- NUTR 4830 - Directed Readings **Credits: (1-3)**

#### Elective Courses (9-11 credit hours)

- NUTR 1120 - Nutrition for the Athlete **Credits: (2)**
- NUTR 1240 - Nutrition and Sustainable Cooking **Credits: (3)**
- NUTR 2220 - Prenatal and Infant Nutrition **Credits: (2)**
- NUTR 2420 - Childhood and Adolescent Nutrition **Credits: (2)**
- NUTR 3020 - Sports Nutrition **Credits: (3)**
- NUTR 3220 - Foundations in Diet Therapy **Credits: (2)**
- NUTR 3320 - Health and Nutrition in the Older Adult **Credits: (3)**
- NUTR 3420 - Multicultural Health & Nutrition **Credits: (3)**
- NUTR 4320 - Current Issues in Nutrition **Credits: (2)**
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**
- NUTR 4520 - Directed Undergraduate Nutrition Research **Credits: (1-4)**
- NUTR 4860 - Field Experience **Credits: (1-2)**
- OCRE 3230 - Wilderness Nutrition & Backcountry Cooking **Credits: (4)**

## Sports Medicine (BIS)

### Bachelor of Integrated Studies

- **Grade Requirements:** A minimum grade of "C" (2.0) in each of the courses taken for the three emphases.
- **Credit Hour Requirements:** The student must take a minimum of 18 credit hours each from at least three (3) different academic departments or recognized disciplines. A student has numerous possibilities in developing a BIS degree using the academic disciplines both in HPHP and campus wide.

*The course of study in each discipline must be approved by the appropriate program director.*

#### BIS Possible Options

*These are only recommendations; many combinations and options for potential careers are possible.*

## **Health Education & Health Promotion Emphasis**

Community Health Promotion  
Occupational Health Education  
Clinical Health Education (*See Department of Health Administrative Services in the Dr. Ezekiel R. Dumke College of Health Professions*)  
Family Life Health Promotion  
Gerontological Health Promotion  
Drug Abuse Prevention Education

## **Nutrition Emphasis**

Dietary Analysis  
Dietary Prescription  
Nutrition Education  
Weight Management  
Nutritional Ergogenics

## **Exercise Science Emphasis**

Coaching Sport  
Corporate Fitness  
Community Fitness  
Sports Medicine  
Sport Communication  
Commercial/Facility Management  
Sport Psychology

## **BIS Requirements**

*Also refer to individual minor programs.*

## **Sports Medicine Emphasis Option 1**

*This course of study is recommended for students who have chosen Exercise Science as one of their three areas of emphasis.*

*Suggested coursework (see AT Program Director to develop an individualized plan)*

Course Requirements for emphasis: Upper Division 12, Total Hours 23

Recommended Courses

- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
  
- AT 2175 - Introduction to Sports Medicine **Credits: (3)** or
- AT 3200 - Psychology of Sport, Injury & Rehabilitation **Credits: (3)**
  
- AT 3300 - Evaluation and Care of Musculoskeletal Injuries: Lower Extremities **Credits: (3)**
- AT 3301 - Evaluation and Care of Musculoskeletal Injuries: Upper Extremities **Credits: (3)**
- AT 4100 - Basic Therapeutic Modalities for Musculoskeletal Injuries **Credits: (3)**

- AT 4200 - Basic Rehabilitation of Musculoskeletal Injuries **Credits: (3)**

#### Elective Courses

- AT 4101 - Advanced Therapeutic Modalities for Musculoskeletal Injuries **Credits: (3)**
- AT 4201 - Advanced Rehabilitation of Musculoskeletal Injuries **Credits: (3)**
- AT 4550 - General Medical Conditions and Advances in Athletic Training **Credits: (3)**
- AT 4600 - Administration & Management in Athletic Training **Credits: (3)**

## Sports Medicine Emphasis Option 2

*This course of study is recommended for students who have NOT chosen Exercise Science as one of their three areas of emphasis.*

Course Requirements for emphasis: Upper Division 18, Total Hours 23

#### Recommended Courses

- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- AT 2300 - Emergency Response **Credits: (3)**
- AT 3300 - Evaluation and Care of Musculoskeletal Injuries: Lower Extremities **Credits: (3)**
- AT 3301 - Evaluation and Care of Musculoskeletal Injuries: Upper Extremities **Credits: (3)**
- AT 4100 - Basic Therapeutic Modalities for Musculoskeletal Injuries **Credits: (3)**
- AT 4200 - Basic Rehabilitation of Musculoskeletal Injuries **Credits: (3)**

#### Elective Courses

- AT 4550 - General Medical Conditions and Advances in Athletic Training **Credits: (3)**
- AT 4600 - Administration & Management in Athletic Training **Credits: (3)**
- ESS 3500 - Biomechanics **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**

## Nutrition Education Minor

- **Program Prerequisite:** Prior departmental approval is required.
- **Grade Requirements:** A GPA of 2.5 or better in courses used toward the minor.
- **Credit Hour Requirements:** A total of 18 credit hours is required, of which a minimum of 7 credit hours must be upper division (courses numbered 3000 or higher).

## Course Requirements for Minor

Required Core Courses (11 credit hours)

- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**
- NUTR 3420 - Multicultural Health & Nutrition **Credits: (3)**

- NUTR 4320 - Current Issues in Nutrition **Credits: (2)**

### Elective Courses (7 credit hours)

*Select 7 credit hours from the following:*

- NUTR 1120 - Nutrition for the Athlete **Credits: (2)**
- NUTR 1240 - Nutrition and Sustainable Cooking **Credits: (3)**
- NUTR 2220 - Prenatal and Infant Nutrition **Credits: (2)**
- NUTR 2420 - Childhood and Adolescent Nutrition **Credits: (2)**
- NUTR 3020 - Sports Nutrition **Credits: (3)**
- NUTR 3220 - Foundations in Diet Therapy **Credits: (2)**
- NUTR 3320 - Health and Nutrition in the Older Adult **Credits: (3)**
- OCRE 3230 - Wilderness Nutrition & Backcountry Cooking **Credits: (4)**
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**
- NUTR 4520 - Directed Undergraduate Nutrition Research **Credits: (1-4)**
- NUTR 4860 - Field Experience **Credits: (1-2)**

## Athletic Therapy Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Athletic Training Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Child and Family Studies

**Department Chair:** Paul Schvaneveldt

**Location:** McKay Education Building, Room 204

**Telephone Contact:** Danielle Orozco 801-626-7151

**Advisor:** Darcy Gregg 801-626-6411

**Professors:** Chloe Merrill, Paul Schvaneveldt; **Associate Professor:** Carrie Ota, Wei Qiu; **Assistant Professors:** Mark Adams, Sheila Anderson, Charles Dunn, Teri Henke, Daniel Hubler, Pamela Payne

The Department of Child and Family Studies offers a broad personal and professional education by providing majors in the following areas: Early Childhood (Bachelor's and Associate of Applied Science), Early Childhood Education, and Family Studies. Minors in Child Development and Family Studies are also offered. Child and Family Studies is also an area available for a Bachelor of Integrated Studies (BIS).

Learning is enhanced by the Melba S. Lehner Children's School where preschool laboratory experience is provided for practical application. Practical experience is built into all areas of study. Honors credit is available for students who desire greater depth. Preparation for graduate study can be pursued in any area represented in the department.

### **Child and Family Studies Department Policies**

All Child and Family Studies courses must have been taken within the last 10 years to count towards major/minor requirements.

The Child and Family Studies Department will only accept two non-articulated transfer courses for the major/minor.

If a grade in a Child and Family Studies major/minor course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition the Family Studies or Early Childhood Committee, as appropriate, to graduate with the lower grade. The Retention & Referral Policy can be found at <http://bit.ly/2wdoDxG>.

All students with a major/minor in Child & Family Studies are strongly encouraged to contact the department academic advisor in McKay Education Building room 248 (801-626-6411) early in their academic career for advisement and declaration of a major and/or minor.

Students must undergo a background check and be fingerprinted for major and course requirements.

### **Early Childhood Laboratory**

The Melba S. Lehner Children's School serves as an early childhood laboratory to give students practical experience in early childhood environments. Students must complete Child and Family Studies prerequisite major courses at a B- level or better and apply to the Director of the Melba S. Lehner Children's School two semesters prior to student teaching. Other practical experience can be arranged with a faculty advisor.

### **Double Major**

#### **Early Childhood and Elementary Education**

Students wanting licensure in both Early Childhood Education and Elementary Education are encouraged to complete a double major. All course requirements must be completed for both majors, which include only one semester of student teaching EDUC 4840 - Student Teaching in Elementary Education and EDUC 4850 - Integrated Elementary Education Student Teaching Seminar and Synthesis. Students will complete the Early Childhood Education requirements. Please see the CHF department academic advisor for additional coursework and information.

## **Early Childhood (AAS)**

- **Program Prerequisite:** Before beginning this program, a student must see the department advisor in McKay Education Building Room 248 (801-626-6411).
- **Grade Requirements:** A cumulative GPA of 2.50 and a grade of B- or better in required major courses. Students will receive the final grade they have earned in each course. If a grade in a major course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition to the Early Childhood/Early Childhood Education Committee, as appropriate, to graduate with the lower grade.
- **Credit Hour Requirements:** A total of 63 credit hours is required for graduation; 28 of these are required within the major.

## Advisement

Students must follow the Department of Child and Family Studies Advisement procedures. Contact the department advisor located in the McKay Education Building, Room 248 (801-626-6411). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration).

Students enrolling in CHF 2610 - Guidance Based on Developmental Theory and CHF 2620 - Planning Creative Experiences for Young Children will be working with families and children; the State of Utah requires a background check and clearance. Applicants must be fingerprinted and complete a background check before being fully accepted into the program. A handout available from the department secretary explains the procedure and nominal expenses. If the background check reveals misconduct, you will not be allowed to enroll in these courses or any others which include field experience, practica or student teaching. Background checks require up to eight weeks and should be completed, or in progress, prior to enrolling in CHF 2610 and CHF 2620. See the department secretary for further details.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. CHF 1500 will fulfill both a major and general education requirement and is prerequisite to most Child and Family Studies Department major courses.

## Major Course Requirements for AAS Degree

Child & Family Studies Courses Required (minimum of 28 credit hours)

- CHF 1500 SS/DV - Human Development **Credits: (3)**
- CHF 2400 SS/DV - Family Relations **Credits: (3)**
- CHF 2500 - Development of the Child **Credits: (3)**
- CHF 2600 - Introduction to Early Childhood Education **Credits: (3)**
- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)**
- CHF 2620 - Planning Creative Experiences for Young Children **Credits: (3)**
- CHF 2670 - STEM and Approaches to Learning in Early Childhood **Credits: (3)**
- CHF 2860 - Practicum **Credits: (2-6)** (3 credit hours required)
- CHF 2890 - Cooperative Work Experience **Credits: (3)** (3 credit hours required)
- CHF 2990A - Seminar in Child Development **Credits: (1)** \*

Note:

\* *Should be taken in the last semester of the program.*

Electives (minimum 18 credit hours)

*Select 18 additional credit hours with the approval of an advisor. Seek additional depth in Child and Family Studies and also select courses from across campus to enhance teaching competency in the areas of Art, Science, Literature, Music, Health & First Aid, etc.*

Note:

*Advisors will suggest specific appropriate courses. Students should work closely with an advisor if they are planning to go on for a future Early Childhood baccalaureate or a teaching certificate.*

# Early Childhood (BS)

*Students preparing to work in childhood programs or agencies serving young children that do not require a teaching certificate graduate with a major in Early Childhood.*

*Students who wish to obtain certification to teach in kindergarten through 3rd grade graduate with a major in Early Childhood Education. (See Early Childhood Education description.)*

- **Program Prerequisite:** Not required.
- **Minor:** Required. In lieu of a minor, a specialization of 15 credit hours may be substituted as approved by the department. Six of these hours must be upper division (courses numbered 3000 or above).
- **Grade Requirements:** Students must have a grade of B- or better in each required major course in addition to a cumulative GPA of 2.50 or higher for all college courses. If a grade in a major course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition to the Early Childhood/Early Childhood Education Committee, as appropriate, to graduate with the lower grade.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 51 of these are required within the major. A minimum of 40 credit hours must be upper division (courses numbered 3000 and above); 30 of these are required within the major.

## Advisement

Students must follow the Department of Child and Family Studies Advisement procedures. Contact the department advisor located in the McKay Education Building, Room 248 (801-626-6411).

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration). Sign a Program of Study Contract with the Department of Child and Family Studies. Contact the department advisor, 801-626-6411.

To be allowed to work with children in the Melba S. Lehner Children's School for lab practicum and student teaching, students must have clearance of criminal background check approved by the Utah Department of Health, Child Care Licensing Program. Look for more information on the Weber State University Fingerprinting Office website ([www.weber.edu/fingerprinting](http://www.weber.edu/fingerprinting)).

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. CHF 1500 (3) will satisfy a general education requirement and is prerequisite to most major courses. GEOG 1300 or GEOG 1520 is recommended.

## Major Course Requirements for BS Degree

Pre Core Course Required (3 credit hours)

- CHF 1500 SS/DV - Human Development **Credits: (3)**

Note:

*(This course will satisfy a general education requirement.)*

Core Courses Required (48 credit hours)

- CHF 2400 SS/DV - Family Relations **Credits: (3)**

- CHF 2500 - Development of the Child **Credits: (3)**
- CHF 2600 - Introduction to Early Childhood Education **Credits: (3)**
- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)**
- CHF 2620 - Planning Creative Experiences for Young Children **Credits: (3)**
- CHF 3500 - Young Children at Risk **Credits: (3)**
- CHF 3570 - Infants and Toddlers: Development and Practice **Credits: (3)**
- CHF 3640 - Working with Parents **Credits: (3)**
- CHF 4130 - Language Development and Emergent Literacy in Early Childhood **Credits: (3)**
- CHF 4670 - STEM and Approaches to Learning in Early Childhood **Credits: (3)**
- CHF 4710 - Advanced Guidance and Planning for Early Childhood Education **Credits: (3)** \*
- CHF 4720 - Student Teaching in the Children's School **Credits: (3-6)** (6 credit hours required) \*
- CHF 4730 - Early Childhood/Early Childhood Education Program Development **Credits: (3)**
- CHF 4890 - Cooperative Work Experience **Credits: (3)** (3 credit hours required)
- CHF 4990A - Seminar in Child Development **Credits: (3)**

Note:

\* Taken concurrently. Students are encouraged to apply two semesters prior to student teaching in the Melba S. Lehner Children's School.

In addition

*Students must complete an advisor-approved specialization of 15 hours or advisor-approved minor.*

## Early Childhood Education (BS)

*The Departments of Child and Family Studies and Teacher Education offer a major in Early Childhood Education with certification for teaching in programs which serve children from birth through eight years of age (Pre-K through 3rd grade). Students preparing to teach a Pre-K early care and education program, Head Start, or a Kindergarten to 3rd grade classroom of a public school graduate with a major in Early Childhood Education. Early Childhood Education students meet the requirements of Elementary Education K-6 License Track with specialization in Early Childhood. They double major in both Early Childhood Education and Elementary Education and are eligible for receiving a second license to teach from kindergarten through 6th grade (K-6).*

- **Program Prerequisite:** Students must have completed at least 36-38 credit hours of required prerequisite support courses and meet all other Teacher Education admission requirements. (See Department of Teacher Education in this catalog.)
- **Minor:** Not required. Early Childhood is the specialization.
- **Grade Requirements:** Early Childhood Education students must meet minimum major course grade requirements and maintain a cumulative GPA of 3.00 or higher in all college work. Early Childhood Education students take two groups of required courses: Early Childhood Education courses and Elementary Education Professional Education Courses (Teacher Education Levels). Students must receive a grade of B- or better in all required Early Childhood Education courses. A grade of "B-" or better is required in all Teacher Education Professional Education courses. If a grade in an Early Childhood Education course does not meet the minimum requirement for graduation, the student may retake the course once. If the student retakes a course, the student will receive the grade earned in the second course attempt. In special circumstances, by the judgment of the department chair, the student may petition to the Early Childhood/Early Childhood Education Committee, as appropriate, to graduate with the lower grade. Early Childhood Education majors must also achieve at least a "C" grade in MATH 2010, MATH 2015, and MATH 2020.

- **Credit Hour Requirements:** A minimum of 120 credit hours is required for a bachelor's degree; 109-111 of these are required within the major.

## Advisement

Students must follow the Department of Child and Family Studies Advisement procedures. Contact the department advisor located in the McKay Education Building, Room 248 (801-626-6411). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration). Early Childhood Education majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

To be allowed to work with children in the Melba S. Lehner Children's School for lab practicum and student teaching, students must have clearance of criminal background check approved by the Utah Department of Health, Child Care Licensing Program. Look for more information on the Weber State University Fingerprinting Office website ([www.weber.edu/fingerprinting](http://www.weber.edu/fingerprinting)).

## General Education

See Degree Requirements for Bachelor of Science requirements. The following courses required for the Early Childhood Education major will also satisfy general education requirements: COMM HU 1020 or COMM HU 2110, GEOG SS/DV 1300 OR GEOG SS/DV 1520, MATH QL 2020, and CHF SS/DV 1500.

Students pursuing a BS degree must take 9 credit hours, at least 3 credit hours from Life Sciences and at least 3 credit hours from Physical Sciences. One of the courses must be GEO PS 1350 (Principles of Earth Science), PHYS PS 1360 (Principles of Physical Science), BTNY LS 1370 (Principles of Life Science), or at least one science course with lab.

## Major Course Requirements for BS Degree

### Pre Core Course Required (3 credit hours)

- CHF 1500 SS/DV - Human Development **Credits: (3)**

Note:

*(This course will satisfy a general education requirement.)*

### Core Courses Required (30 credit hours)

- CHF 2500 - Development of the Child **Credits: (3)**
- CHF 2600 - Introduction to Early Childhood Education **Credits: (3)**
- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)**
- CHF 2620 - Planning Creative Experiences for Young Children **Credits: (3)** (Taken with Level 1 courses)
- CHF 3500 - Young Children at Risk **Credits: (3)** or
- EDUC 2010 - Human Exceptionality **Credits: (3)**
- CHF 3640 - Working with Parents **Credits: (3)**
- CHF 4710 - Advanced Guidance and Planning for Early Childhood Education **Credits: (3)** \*
- CHF 4720 - Student Teaching in the Children's School **Credits: (3-6)** (6 credit hours required) \*
- CHF 4990A - Seminar in Child Development **Credits: (3)**

Note:

\*CHF 4710 and CHF 4720 are taken concurrently in fall or spring semester, typically between Level 1 and Level 2. Students are encouraged to apply two semesters prior to student teaching in the Melba S. Lehner Children's School.

### Support Courses Required (24-25 credit hours)

- EDUC 1010 - Exploring Teaching **Credits: (3)**
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)** or
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**
- MATH 2010 - Arithmetic for Teachers **Credits: (3)**
- MATH 2015 - Algebra and Functions for Teachers **Credits: (3)**
- MATH 2020 QL - Mathematics for Elementary Teachers II **Credits: (3)**
- ENGL 3300 - Children's Literature **Credits: (3)**

At least one course from the following:

- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)**
- EDUC 3430 - Creative Processes in the Elementary School **Credits: (3)**
- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**
- MUSC 3824 - Music for Elementary Teachers **Credits: (4)**
- THEA 4603 - Creative Drama **Credits: (3)**

### Professional Education Courses Required (53 credit hours)

*Admission to teacher education is required prior to enrollment in Professional Education courses. The Level course changes will begin Fall 2018 and will show up in Cattracks for the 2018-2019 catalog year.*

Level 1 (10 credit hours)

- EDUC 3116 - Media Integration in Elementary Education Settings 1 **Credits: (1)**
- EDUC 3120 - Reading Instruction in the Primary Grades **Credits: (3)**
- EDUC 3205 - Culturally and Linguistically Responsive Teaching **Credits: (3)**
- EDUC 3270 - Differentiation and Collaboration for Inclusive Teaching **Credits: (3)**
- CHF 2620 - Planning Creative Experiences for Young Children **Credits: (3)** \*

Note:

\* Credits of CHF 2620 are counted under "Core Courses Required."

A Semester Between Level 1 and Level 2

- CHF 4710 - Advanced Guidance and Planning for Early Childhood Education **Credits: (3)** \*
- CHF 4720 - Student Teaching in the Children's School **Credits: (3-6)** \*
- CHF 4990A - Seminar in Child Development **Credits: (3)** \*

Note:

\* Credits of CHF 4710, CHF 4720, and CHF 4990A are counted under "Core Courses Required." CHF 4990A may be taken concurrently with CHF 4710 and CHF 4720, or at a later time.

Level 2 (14 credit hours)

- EDUC 3100 - Instructional Planning & Assessment **Credits: (3)**
- EDUC 3117 - Media Integration in Elementary Education Settings 2 **Credits: (1)**
- EDUC 3210 - Elementary Level II Practicum **Credits: (2)**
- EDUC 3230 - Data Analysis for Elementary Teachers and Math Pedagogy **Credits: (2)**
- EDUC 3240 - Reading Instruction in the Intermediate Grades **Credits: (3)**
- EDUC 4345 - Elementary Integrated Arts Methods **Credits: (3)**

Level 3 (17 credit hours)

- EDUC 3280 - Elementary Social Studies Methods **Credits: (3)**
- EDUC 4210 - Elementary Level III Practicum **Credits: (3)**
- EDUC 4320 - Elementary Language Arts Methods **Credits: (3)**
- EDUC 4330 - Elementary Science Methods **Credits: (3)**
- EDUC 4350 - Elementary Mathematics Pedagogy **Credits: (2)**
- PEP 3620 - Methods of Teaching Physical Education and Health for Elementary Teachers **Credits: (3)**

Level 4 (12 credit hours)

- EDUC 4840 - Student Teaching in Elementary Education **Credits: (8)**
- EDUC 4850 - Integrated Elementary Education Student Teaching Seminar and Synthesis **Credits: (4)**

Note:

*The Professional Education component of the Early Childhood Education major requires four semesters to complete. Therefore, it is very important that candidates have completed the General Education requirements and have taken most of the required Support courses prior to entering the program. Because of the possible scheduling difficulties, failure to do so could mean spending an extra semester (or more) in completing the program.*

## Family Studies (BS)

- **Program Prerequisite:** (1) Complete the Pre-professional Core courses listed in the next column under Major Course Requirements; (2) Declare your Family Studies major with the department academic advisor; (3) Complete a background check and clearance (see Policy Notes).
- **Minor:** A minor is required.\* **Optional:** In lieu of a minor, a specialization of 12-18 semester hours may be substituted as approved by the department advisor. Six of these hours must be upper division (courses numbered 3000 and above).
- **Grade Requirements:** A grade of C or better in courses required for this major (a grade of C- is not acceptable). Students will receive the final grade they have earned in each course. If a grade in a major course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition to the Family Studies or Early Childhood Committee, as appropriate, to graduate with the lower grade. Also refer to the grade requirements for graduation under General Requirements.

- **Credit Hour Requirements:** A total of at least 120 credit hours is required for graduation; a minimum of 48 of these must be within the major. A total of 40 upper division credit hours is required by the University (courses numbered 3000 and above); 33 of these are required within the major.

## Advisement

Students must follow the Department of Child and Family Studies Advisement procedures. Contact the department advisor located in McKay Education Building, Room 248 (801-626-6411). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration). To be eligible for acceptance into and graduation from the Family Studies Program a candidate must:

1. Complete all of the Pre-professional Core courses listed under Course Requirements.
2. Declare the Family Studies major with the department academic advisor.
3. Complete a background check and clearance (see Policy Notes).

## Policy Notes

Since students majoring in Family Studies will be working with families and children, the State of Utah requires a background check and clearance. Applicants must be fingerprinted and complete a background check before being fully accepted into the program. A handout available from the department secretary explains the procedure and nominal expenses. Background checks require up to eight weeks and should be completed, or in progress, at the time Family Studies Program courses are begun. See the department secretary for further details.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

*\* Family Studies students may combine their major with either a minor or a dual major. Consult with an advisor when designing a dual major. Minors may be selected from department minor offerings across campus. Typical minors include Psychology, Sociology, Gerontology, Social Work, Communications, and/or Business. A minor should be designed to best support personal goals or career directions.*

*The Family Studies program fulfills the requirements for provisional certification as a Family Life Educator, available by application and paid fee to the National Council on Family Relations. Full certification requires two years of paid professional experience in addition to the Family Studies degree. Provisional certification allows five years to complete the two-year requirement.*

## Major Course Requirements for BS Degree

Pre-professional Core Course Requirements (12 credit hours)

- CHF 1400 - Marriage and Romantic Relationships **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)**
- CHF 2100 - Family Resource Management **Credits: (3)**
- CHF 2400 SS/DV - Family Relations **Credits: (3)**

## Family Studies Professional Core Block Courses Required (36 semester hours)

*The course sequence is designed to allow a Family Studies major to meet all program prerequisites and complete the program in three full-time semesters without conflicting class schedules. Taking classes outside of the stated semesters will delay graduation.*

### Block Courses Semester 1

- CHF 2990B - Seminar in Family Studies **Credits: (3)**
- CHF 3850 - Current Research Methods in Child and Family Studies **Credits: (3)**
- HLTH 3500 - Human Sexuality **Credits: (3)**
- CHF Elective Course 1--(Choose one of the electives listed below.) **Credits: (3)**

### Block Courses Semester 2

- CHF 3350 - Diverse Families **Credits: (3)**
- CHF 3550 - Parenting Education **Credits: (3)**
- CHF Elective Course 2--(Choose one of the electives listed below.) **Credits: (3)**
- CHF Elective Course 3--(Choose one of the electives listed below.) **Credits: (3)**

### Block Courses Semester 3

- CHF 4650 - Family Life Education Methods **Credits: (3)**
- CHF 4860 - Practicum **Credits: (1-6)** (3 credit hours required)
- CHF 4990B - Senior Seminar in Family Studies **Credits: (3)**
- CHF Elective Course 4--(Choose one of the electives listed below.) **Credits: (3)**

Elective Courses (You may choose four of the following courses for a total of 12 credit hours required for this major degree)

- CHF 3150 - Consumer Rights and Responsibilities **Credits: (3)**
- CHF 3400 - Development in Middle Adulthood **Credits: (3)**
- CHF 3450 - Adult Development **Credits: (3)**
- CHF 3650 - Family Processes **Credits: (3)**
- CHF 4300 - Latino Child and Family Development **Credits: (3)**
- CHF 4310 - Understanding the Modern United States Military Family **Credits: (3)**
- CHF 4400 - The Family in Stress **Credits: (3)**
- CHF 4450 - Children and Families in the Medical Setting **Credits: (3)**
- CHF 4500 - Comparative Study of Childhood and Adolescent Development **Credits: (3)**
- CHF 4660 - Advanced Skills for Family Life Educators **Credits: (3)**

### Note:

*Students who are planning to apply to a graduate program are strongly encouraged to take a statistics course. See the Department of Child and Family Studies academic advisor for a list of appropriate classes.*

## Child and Family Studies (BIS)

- **Grade Requirements:** An overall GPA of 2.00 or C in courses used toward the emphasis. Students will receive the final grade they have earned in each course. If a grade in a Child & Family Studies major course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition to the Family Studies or Early Childhood Committee, as appropriate, to graduate with the lower grade.
- **Credit Hour Requirements:** A minimum of 18 credit hours from Child and Family Studies to include 9 hours of required courses and 9 hours of electives. Two courses (6 credits) must be upper division (3000 level or above).

### Required Courses (9 credit hours)

- CHF 1400 - Marriage and Romantic Relationships **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)** \*
- CHF 2400 SS/DV - Family Relations **Credits: (3)**

Note:

*\* If taken for Social Science general education credit, CHF course (3 credits) must be added.*

### Electives (minimum 9 credit hours)

*Elective courses to be determined in conference with a department advisor.*

- *At least six credit hours must be upper-division (courses numbered 3000 and higher).*

## Child Development Minor

- **Grade Requirements:** A grade of C or better in courses used toward the minor.
- **Credit Hour Requirements:** A minimum of 18 credit hours, of which at least 6 must be upper division courses (courses numbered 3000 and above). Students will receive the final grade they have earned in each course. If a grade in a minor course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition to the Family Studies or Early Childhood/Early Childhood Education Committee, as appropriate, to graduate with the lower grade.

To be allowed to work with children in the Melba S. Lehner Children's School for lab practicum, students must have clearance of criminal background check approved by the Utah Department of Health, Child Care Licensing Program. Look for more information on the Weber State University Fingerprinting Office website ([www.weber.edu/fingerprinting](http://www.weber.edu/fingerprinting)).

### Course Requirements for Minor

Required Courses (12 credit hours)

- CHF 2500 - Development of the Child **Credits: (3)**
- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)** (*lab required*)

- CHF 3570 - Infants and Toddlers: Development and Practice **Credits: (3)**
- CHF 4500 - Comparative Study of Childhood and Adolescent Development **Credits: (3)**

### Electives (6 credit hours)

*Select at least two courses from the following*

- CHF 2400 SS/DV - Family Relations **Credits: (3)**
- CHF 2600 - Introduction to Early Childhood Education **Credits: (3)**
- CHF 2620 - Planning Creative Experiences for Young Children **Credits: (3)** (lab required)
- CHF 3350 - Diverse Families **Credits: (3)**
- CHF 3500 - Young Children at Risk **Credits: (3)**
- CHF 3550 - Parenting Education **Credits: (3)**
- CHF 3640 - Working with Parents **Credits: (3)**
- CHF 4130 - Language Development and Emergent Literacy in Early Childhood **Credits: (3)**
- CHF 4300 - Latino Child and Family Development **Credits: (3)**
- CHF 4860 - Practicum **Credits: (1-6)** (3 credit hours required)

Note:

*For students seeking the Child Development minor with a Family Studies bachelor's degree, the required courses will change. Students must have 18 credits beyond their major for a minor in Child Development. See the department advisor located in the McKay Education Building, Room 248 (801-626-6411).*

## Family Studies Minor

- **Grade Requirements:** An overall GPA of 2.00 or C in courses used toward the minor.
- **Credit Hour Requirements:** Minimum of 18 credit hours, of which at least 6 must be upper division (courses numbered 3000 and above). Students will receive the final grade they have earned in each course. If a grade in a minor course does not meet the minimum requirement for graduation, the student may retake the course once. In special circumstances, by the judgment of the department chair, the student may petition to the Family Studies or Early Childhood Committee, as appropriate, to graduate with the lower grade.

### Course Requirements for Minor

#### Required Courses (9 credit hours)

- CHF 1400 - Marriage and Romantic Relationships **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)**
- CHF 2400 SS/DV - Family Relations **Credits: (3)**

#### Faculty Advisor Approved Elective Courses (9 credit hours)

*Select 9 credit hours from the following with at least 6 credit hours of upper-division (courses numbered 3000 and higher)*

- CHF 2100 - Family Resource Management **Credits: (3)**
- CHF 2500 - Development of the Child **Credits: (3)**

- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)**
- CHF 3150 - Consumer Rights and Responsibilities **Credits: (3)**
- CHF 3350 - Diverse Families **Credits: (3)**
- CHF 3450 - Adult Development **Credits: (3)**
- CHF 3500 - Young Children at Risk **Credits: (3)**
- CHF 3550 - Parenting Education **Credits: (3)**
- CHF 3640 - Working with Parents **Credits: (3)**
- CHF 3650 - Family Processes **Credits: (3)**
- CHF 3850 - Current Research Methods in Child and Family Studies **Credits: (3)**
- CHF 4300 - Latino Child and Family Development **Credits: (3)**
- CHF 4400 - The Family in Stress **Credits: (3)**
- CHF 4500 - Comparative Study of Childhood and Adolescent Development **Credits: (3)**
- CHF 4650 - Family Life Education Methods **Credits: (3)**

Note:

*For students using the Family Studies minor with an Early Childhood degree, the required courses will change. Students must have 18 credits beyond their major for a minor in Family Studies. See the department advisor located in the McKay Education Building, Room 248 (801-626-6411).*

## Child and Family Studies Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Department of Health Promotion and Human Performance

**Department Chair:** James Zagrodnik

**Location:** Reed K. Swenson Building, Room 302B

**Telephone Contact:** Sara Christensen 801-626-6691

**Professors:** Michael Olpin, Molly Smith; **Associate Professors:** Gerilynn Conlin, Chris Eisenbarth, James Zagrodnik;

**Assistant Professors:** Cass Griffith, Saori Hanaki, Yan Huang, T. Grant Lewis, Chad Smith, Ryan Zimmerman;

**Instructors:** Christina Guilar, Heather Hunter

The Department of Health Promotion and Human Performance (HPHP) in the Jerry and Vickie Moyes College of Education offers programs that promote lifelong wellness from a variety of disciplines. The teaching environment, supported by faculty with diverse expertise, creates quality learning communities that offer undergraduates exceptional educational experiences. The state-of-the-art facilities - including fully equipped human performance and biomechanics laboratories, a networked computer lab, 6-lane swimming pool, ample indoor and outdoor recreational, fitness, sport and activity areas, and indoor climbing wall - provide an outstanding arena for student instruction. With a curriculum designed to develop professional knowledge and skills, graduates from the department are prepared to work in a variety of educational, health and fitness settings.

Through instruction, scholarship and service, the department of Health Promotion and Human Performance offers Bachelor of Science degrees in health promotion, exercise and sport science, outdoor and community recreation, and physical education. Minors include coaching sport, health promotion and health promotion teaching, physical education/coaching, and recreation. In addition, the department offers undergraduate and graduate programs for the department of teacher education, the master of education program, and supports Weber State University and community wellness related activities.

The department also supports the efforts of under graduates seeking the bachelor of integrated studies degree, offering health promotion, physical education/coaching, recreation/leisure services, and exercise science as emphases for the BIS Program.

### **Mission Statement**

The Health Promotion and Human Performance Department Mission is to inspire future professionals by providing a high quality education through an innovative, engaged learning experience.

## **Exercise and Sport Science (BS)**

- **Program Prerequisite:** Not required.
- **Minor:** Not required.
- **Grade Requirements:** A GPA of 2.75 or higher in all courses required for this major. The overall GPA must be 2.00 or better. No more than one "D" is acceptable.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a total of 63 credit hours for this major. Ten to 11 credit hours of required support courses may be used as general education credit. A total of 40 upper division credit hours is required for graduation with 36-38 upper division hours possible within the required courses for this major.

### **Advisement**

All Exercise and Sport Science students are encouraged to meet with a faculty advisor or the department advisement coordinator each semester for course and program advisement. Call 801-626-7425 or send a message to the HPHP Department Advisor for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### **Admission Requirements**

Make application with the HPHP Department and declare program of study (see Enrollment Services and Information).

### **General Education**

Refer to Degree Requirements for Bachelor of Science requirements.

## **Major Course Requirements for BS Degree**

Required Core Courses (24 credit hours, 16 UD)

- AT 2300 - Emergency Response **Credits: (3)**
- ESS 2200 - Exploring Exercise Science Professions **Credits: (2)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**
- ESS 3450 - Structural Kinesiology **Credits: (3)**
- ESS 3500 - Biomechanics **Credits: (3)**

- ESS 3510 - Exercise Physiology **Credits: (3)**
- ESS 3600 - Measurement and Statistics in Exercise Science **Credits: (3)**
- ESS 4370 - Clinical Exercise Physiology **Credits: (3)**
- ESS 4990 - Senior Seminar **Credits: (1)**

## Professional Areas of Emphasis

*A student must complete the required and support courses in either the Fitness Professional or the Exercise Science Emphasis.*

Fitness Professional Emphasis (39 credit hours, 20 UD possible)

Required Core (23 credit hours, 20 UD)

- HLTH 3000 - Foundations of Health Promotion **Credits: (3)**
- HLTH 3200 - Methods in Health Education **Credits: (3)**
- NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**
- NUTR 3020 - Sports Nutrition **Credits: (3)** or
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- ESS 2890 - Cooperative Work Experience **Credits: (1-6)**
- ESS 4890 - Cooperative Work Experience **Credits: (1-6)**  
**(5 credit hours required)**
- PS 3203 - Customer Service Techniques **Credits: (3)** or
- PS 3563 - Principles of Sales Supervision **Credits: (3)**

Skill Development (select 2) (2 credit hours total, 0 UD)

- PE 1010 - Aerobics, Level I **Credits: (1)**
- PE 1040 - Walking for Fitness, Level I **Credits: (1)**
- PE 1043 - Jogging, Level I **Credits: (1)**
- PE 1070 - Cross Training For Fitness, Level I **Credits: (1)**
- PE 1080 - Strength Training, Level I **Credits: (1)**
- PE 1300 - Swimming, Level I **Credits: (1)**

Required Support Courses (14 credit hours, 0 UD)

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- CHEM 1010 PS - Introductory Chemistry **Credits: (3)**

Exercise Science Emphasis (39 credits, check requirements for UD)

Required Electives (Choose 24 credits from College and Professional Development)

College (HHPH and ATN) (At least 12 credits, 6-16 UD possible)

- AT 2430 - Prevention and Care of Musculoskeletal Injuries **Credits: (3)**
- NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**
- NUTR 3020 - Sports Nutrition **Credits: (3)** or
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**
- NUTR 4320 - Current Issues in Nutrition **Credits: (2)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- PEP 4800 - Individual Projects **Credits: (1-4)**

Professional Development (3-12 credits, 3-12 UD possible)

- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**
- CHEM 2310 - Organic Chemistry I **Credits: (4)**
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**
- MICR 2054 LS - Principles of Microbiology **Credits: (4)**
- MICR 3203 - The Immune System in Health & Disease **Credits: (3)**
- PHYS 2010 PS - College Physics I **Credits: (5)**
- PHYS 2020 - College Physics II **Credits: (5)**
- PSY 3010 - Abnormal Psychology **Credits: (3)**
- ZOOL 1110 LS - Principles of Zoology **Credits: (4)**
- ZOOL 3200 - Cell Biology **Credits: (4)**
- ZOOL 3300 - Genetics **Credits: (4)**

Required Support Courses (15 credit hours, 0 UD)

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** or
- ZOOL 2100 - Human Anatomy **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** or
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- MATH 1050 QL - College Algebra **Credits: (4)** or higher level math
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**

# Health Promotion (BS)

- **Program Prerequisite:** Acceptance into the program (see Admission Requirements below).
- **Minor:** Not Required.
- **Grade Requirement:** A grade of "C" or better in all major coursework, in addition to a minimum cumulative GPA of 2.50.
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 53-55 of these are required within the major. A total of 40 upper division credit hours is required (courses number 3000 and above); a minimum of 37 of these is required within the major.

## Advisement

The HPHP Department Advisement Coordinator, Sherrie Jensen, serves as the academic advisor prior to admission to the Health Promotion program, and assists students with advisement through completion of the program of study. Call Sherrie at 801-626-7425 or email [sjensen3@weber.edu](mailto:sjensen3@weber.edu) for more information or to schedule an appointment (also refer to the Department Advisor Referral List).

Students are encouraged to meet with a faculty advisor (i.e., Drs. Eisenbarth or Olpin) annually for course and program advisement.

## Admission Requirements

Before a student can be considered for the Health Promotion program, the following application requirements must be met:

1. Admission to Weber State University.
2. Submit a Health Promotion Program Student Application and student transcript which demonstrates the following:
  - Completion of 25 credit hours with a minimum 2.50 Weber State University GPA. Of these 25 credits, the students must demonstrate completion of: HLTH 1030, and, HTHS 1110 or ZOOL 1020.
  - Grade "C" or better in all major coursework.
3. Applications may be obtained from the Health Promotion Program Director or HPHP Department Advisement Coordinator.
4. Students who fail to meet admission requirements will not be allowed to enroll in HLTH 4860 or HLTH 4990.

## Steps to Apply

Declare your program of study (see Enrollment Services and Information). In addition, the following steps are required:

1. Make application to the program.
2. Complete an informal interview with the academic advisor

## Retention Requirements

1. After students are selected into the Health Promotion major, retention in the program will be based on the following criteria:
  1. Grade "C" or better in all major coursework.
  2. Students must maintain a GPA of 2.5 or higher in all courses required for this major.
2. Students who fail to meet the retention criteria will be placed on probation in the Health Promotion major for one semester. If standards are not met by the end of the probationary period, the student may be dismissed from the major at the discretion of the Program Director.
  1. Students who receive any grade below a "C" in a course counting toward the Health Promotion major must repeat that course and receive a grade of "C" or higher to remain in the major.
  2. Failure to repeat the course (when offered) will result in dismissal from the program at the discretion of the Program Director.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

*Graduates of the program are eligible to sit for the Certified Health Education Specialist (CHES) examination with a minimum of 25 semester hours in health courses.*

## Major Course Requirements for BS Degree

### Prerequisite Courses Required (6-7 credit hours)

- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** or
- ZOOL 1020 LS - Human Biology **Credits: (3)**

### Courses Required (32 credit hours)

*HAS courses are described in the Dr. Ezekiel R. Dumke College of Health Professions*

- HLTH 3000 - Foundations of Health Promotion **Credits: (3)**
- HLTH 3200 - Methods in Health Education **Credits: (3)** \*
- HLTH 4013 - Health Promotion Research and Assessment **Credits: (3)**
- HLTH 4150 - Needs Assessment & Planning Health Promotion Programs **Credits: (4)**
- HLTH 4860 - Field Experience **Credits: (1-6)** (3 credit hours required)
- HLTH 4990 - Senior Seminar **Credits: (1)**
- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
  
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)** or
- NUTR 3420 - Multicultural Health & Nutrition **Credits: (3)**
  
- HAS 3230 - Health Communication **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**

### Professional Block

*Minimum of 9 credit hours, must be approved by advisor. These courses may also be used as electives.*

- HLTH 2400 - Mind/Body Wellness **Credits: (3)**
- HLTH 2700 - Consumer Health **Credits: (3)**
- HLTH 3100 - Applications of Technology in Health Promotion **Credits: (3)**
- HLTH 3160 - Principles of Health Behavior **Credits: (3)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**

### Elective Courses (15 credit hours)

- AT 3600 - Ergonomics for Health and Safety **Credits: (2)**
- HLTH 1110 - Stress Management **Credits: (3)**

- AT 1300 - First Aid: Responding to Emergencies **Credits: (2)**
- AT 2300 - Emergency Response **Credits: (3)**
- HLTH 3050 - School Health Program **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 3500 - Human Sexuality **Credits: (3)**
- HLTH 4220 - Women's Health Issues **Credits: (3)**
- HLTH 4250 - Contemporary Health Issues of Adolescents **Credits: (2)**
- NUTR 3320 - Health and Nutrition in the Older Adult **Credits: (3)**
- HLTH 4700 - Wellness Coaching **Credits: (3)**
- HLTH 4800 - Individual Projects **Credits: (1-3)**
- HLTH 4860 - Field Experience **Credits: (1-6)** (3 credit hours required)
- HLTH 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)** (1 credit hour required)
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- HAS 4410 - Clinical Instructional Design and Evaluation **Credits: (3)** \*
- HAS 4420 - Clinical Instructional Skills **Credits: (3)**
- HTHS 1101 - Medical Terminology **Credits: (2)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- GERT 3000 - Death and Dying **Credits: (3)**
- NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**

Note:

*\*HAS 4410 may be substituted for HLTH 3200.*

## Outdoor and Community Recreation Education (BS)

**Program Prerequisite:** Not required.

**Minor:** Not required.

**Grade Requirements:** A GPA of 2.75 or higher in all courses required for this major. The overall GPA must be 2.00 or better.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a total of 62 credit hours for this major. A total of 40 upper division credit hours is required with 45-48 upper division hours possible within the required courses for this major.

### Advisement

All Outdoor and Community Recreation Education students are encouraged to meet with a faculty advisor or the department advisement coordinator each semester for course and program advisement. Call 801-626-7425 or send a message to [sjensen3@weber.edu](mailto:sjensen3@weber.edu) for more information or to schedule an appointment.

### Admission Requirements

Make application with the HPHP Department and declare program of study (see Enrollment Services and Information).

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Requirements for BS Degree

Required Core Courses (42 credit hours)

- OCRE 2500 - Introduction to Outdoor Pursuits **Credits: (4)**
- OCRE 2890 - Cooperative Work Experience **Credits: (1-9)** 2 credits are required
- OCRE 3050 - Recreation and Leisure in Society **Credits: (3)**
- OCRE 3100 - Recreation Leadership and Group Facilitation **Credits: (3)**
- OCRE 3300 - Inclusive and Adaptive Recreation **Credits: (3)**
- OCRE 3320 - Adventure Programming **Credits: (3)**
- OCRE 3520 - Risk Management and Legal Issues in Recreation Services **Credits: (3)**
- OCRE 3600 - Administration and Management of Outdoor and Community Recreations Services **Credits: (3)**
- ESS 3600 - Measurement and Statistics in Exercise Science **Credits: (3)**
- OCRE 4300 - Trends and Ethical Issues in Recreation Services **Credits: (3)**
- OCRE 4890 - Cooperative Work Experience **Credits: (1-6)** 6 credits are required
- WEB 2220 - Digital Publishing **Credits: (3)**
- PS 3203 - Customer Service Techniques **Credits: (3)**

## Professional Areas of Emphasis

*A student must complete the required and support courses in either the Outdoor or Community Recreation Administration Emphasis.*

Outdoor Recreation Administration Required Core (18 credit hours)

- AT 2300 - Emergency Response **Credits: (3)**
- OCRE 3400 - Outdoor Equipment Production and Retailing **Credits: (3)**
- OCRE 3450 - Adventure Travel and Sustainable Tourism **Credits: (3)**
- OCRE 3900 - Commercial Outdoor Recreation **Credits: (3)**
- OCRE 4020 - Nature Interpretation **Credits: (3)**
- OCRE 4550 - Outdoor Education Philosophies & Principles **Credits: (3)**

2 Elective credit hours from REC

- REC 1316 - Stand-Up Paddleboard **Credits: (1)**
- REC 1350 - Scuba Diving, Level I **Credits: (1)**
- REC 1351 - Scuba Diving, Level II **Credits: (1)**
- REC 1505 - Kayaking, Level I **Credits: (1)**
- REC 1510 - Fishing, Level I **Credits: (1)**
- REC 1511 - Fishing, Level II **Credits: (1)**
- REC 1512 - Fishing, Level III **Credits: (1)**
- REC 1520 - Hiking, Level I **Credits: (1)**
- REC 1521 - Hiking, Level II **Credits: (1)**
- REC 1522 - Hiking, Level III **Credits: (1)**
- REC 1527 - Rock Climbing, Level I **Credits: (1)**
- REC 1528 - Rock Climbing, Level II **Credits: (1)**

- REC 1529 - Rock Climbing, Level III **Credits: (1)**
- REC 1610 - Skiing, Level I **Credits: (1)**
- REC 1611 - Skiing, Level II **Credits: (1)**
- REC 1612 - Skiing, Level III **Credits: (1)**
- REC 1620 - Snowboarding, Level I **Credits: (1)**
- REC 1621 - Snowboarding, Level II **Credits: (1)**
- REC 1622 - Snowboarding, Level III **Credits: (1)**
- REC 1630 - Cross-Country Skiing, Level I **Credits: (1)**
- REC 1631 - Cross-Country Skiing, Level II **Credits: (1)**
- REC 1632 - Cross-Country Skiing, Level III **Credits: (1)**

## **Community Recreation Administration Emphasis**

### Required Core (18 credit hours)

- OCRE 3500 - Community Recreation and Park Planning **Credits: (3)**
- OCRE 3700 - Recreation and Sports Facilities and Events Management **Credits: (3)**
- OCRE 4000 - Recreation Programming for Youth Development **Credits: (3)**
- OCRE 4500 - Grant and Proposal Writing for Recreation Professionals **Credits: (3)**
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**

### Choose 2 Elective credits hours from REC

- REC 1316 - Stand-Up Paddleboard **Credits: (1)**
- REC 1350 - Scuba Diving, Level I **Credits: (1)**
- REC 1351 - Scuba Diving, Level II **Credits: (1)**
- REC 1505 - Kayaking, Level I **Credits: (1)**
- REC 1510 - Fishing, Level I **Credits: (1)**
- REC 1511 - Fishing, Level II **Credits: (1)**
- REC 1512 - Fishing, Level III **Credits: (1)**
- REC 1520 - Hiking, Level I **Credits: (1)**
- REC 1521 - Hiking, Level II **Credits: (1)**
- REC 1522 - Hiking, Level III **Credits: (1)**
- REC 1527 - Rock Climbing, Level I **Credits: (1)**
- REC 1528 - Rock Climbing, Level II **Credits: (1)**
- REC 1529 - Rock Climbing, Level III **Credits: (1)**
- REC 1610 - Skiing, Level I **Credits: (1)**
- REC 1611 - Skiing, Level II **Credits: (1)**
- REC 1612 - Skiing, Level III **Credits: (1)**
- REC 1620 - Snowboarding, Level I **Credits: (1)**
- REC 1621 - Snowboarding, Level II **Credits: (1)**
- REC 1622 - Snowboarding, Level III **Credits: (1)**
- REC 1630 - Cross-Country Skiing, Level I **Credits: (1)**
- REC 1631 - Cross-Country Skiing, Level II **Credits: (1)**
- REC 1632 - Cross-Country Skiing, Level III **Credits: (1)**

# Physical Education (BS)

## Physical Education Major

The Department of Health Promotion and Human Performance offers an undergraduate degree in Physical Education. The Physical Education Non-teaching Track is designed to prepare students to work in a physical activity venue. The Physical Education Teaching Track is designed to prepare students to teach physical education in a K-12 school system. A teaching minor is to be selected in addition to the teaching major to prepare students to enter the Teacher Education program and to become licensed to teach in a K-12 school system.

**Physical Education Teaching Track** students must meet all requirements for the Physical Education Teaching Track and those requirements needed for Teacher Licensure (27).

**Physical Education Non-teaching Track** students must meet all requirements for the Physical Education Teaching Track except those needed for Teacher Licensure and an additional 12 credits listed below.

- **Program Prerequisite:** Students selecting the Physical Education Teaching Track, must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).
- **Minor:** Physical Education Teaching Track requires a teaching minor.
- **Grade Requirements:** A combined GPA of 3.0 is required for all courses used toward the major. No grade lower than a "C" is acceptable.
- **Credit Hour Requirements:** Physical Education Non-teaching Track-Total minimum credit hours required in the Major (48). Physical Education Teaching Track-Total minimum credit hours required in the Major (36). Any Physical Education Professional course older than 8 years will not be accepted toward degree requirements.

## Advisement

All Physical Education students are encouraged to meet with a faculty mentor or the department advisement coordinator each semester for course and program advisement. Call 801-626-7425 or send a message to [sjensen3@weber.edu](mailto:sjensen3@weber.edu) for more information or to schedule an appointment. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Students must apply for Physical Education program admittance by November 10 or March 10 of their **first** semester of taking Physical Education Professional [PEP] courses. Applications are available from the Physical Education Program Director. In addition, students applying for the Teaching Track must also meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog). Students will not be allowed to register for PEP 3520, PEP 3520L, PEP 3630, PEP 3660, PEP 4700, PEP 4710, PEP 4860C, PEP 4830, or PEP 4990 until admission requirements have been met.

### Admission requirements include:

1. Declared major or minor or BIS in a Physical Education or Coaching Education program.
2. Minimum cumulative GPA of 2.75.
3. Students may transfer a maximum of 12 physical education professional course credits from another institution per the Physical Education Program Director approval.
4. Fingerprinting/background check must be cleared prior to admission to the program. Provisional admission is granted for one semester only until the check is completed.
5. Sport specific skills and fitness tests must be completed and passed at the Control/Utilization Level and Health Fitness Zone. Sport specific skill and fitness testing is offered once during each of fall and spring semesters. Provisional admission may be granted for up to three semesters.
6. Student Disposition score above 20 in each course taken.
7. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

## Program Retention Requirements

After admission into the Physical Education major/minor programs, students will be retained based on the following:

1. Minimum cumulative GPA of 3.0.
2. Earned grade of "C" or above for each required course.
3. Clear fingerprinting/background check.
4. Retention/improvement of sport specific and fitness skills.
5. Student Disposition score above 20 in each course.
6. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

General Education courses required for the Physical Education major are:

NUTR LS 1020 Science and Application of Human Nutrition (3)

HTHS LS 1110 BioMed Core

See major and minor course prerequisites for additional General Education recommendation/requirements. Also see Teacher Education Requirements for recommended and required General Education courses for Physical Education Teaching Track Majors.

## Major Course Requirements for BS Degree

Professional Knowledge (18 credit hours)

- PEP 2000 - Foundations of Physical Education **Credits: (3)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- ESS 3450 - Structural Kinesiology **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**
- PEP 3660 - Adapted Physical Education **Credits: (3)**

Field Experience (3 credit hours)

- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)**

Methods of Teaching Courses (15 credit hours)

- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**
- PEP 3630 - Methods of Teaching Elementary School Physical Education **Credits: (3)**
- PEP 4700 - Methods of Teaching Junior High School Physical Education **Credits: (3)**
- PEP 4710 - Methods of Teaching High School Physical Education **Credits: (3)**

Students choosing the Non-teaching Physical Education Track are required to take an additional 12 credits of the following courses:

- PEP 2100 - Introduction to Coaching Sport **Credits: (3)**

- PEP 2500 - Sport Pedagogy **Credits: (3)**
- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- ESS 4620 - Leadership Concepts for Human Performance Management **Credits: (3)**
- PEP 4830 - Directed Readings **Credits: (1-3)**
- OCRE 3050 - Recreation and Leisure in Society **Credits: (3)**
- OCRE 3600 - Administration and Management of Outdoor and Community Recreations Services **Credits: (3)**
- OCRE 3100 - Recreation Leadership and Group Facilitation **Credits: (3)**
- NUTR 3020 - Sports Nutrition **Credits: (3)**
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**

## Physical Education Teaching (BS)

### Physical Education Major

The Department of Health Promotion and Human Performance offers an undergraduate degree in Physical Education. The Physical Education Non-teaching Track is designed to prepare students to work in a physical activity venue. The Physical Education Teaching Track is designed to prepare students to teach physical education in a K-12 school system. A teaching minor is to be selected in addition to the teaching major to prepare students to enter the Teacher Education program and to become licensed to teach in a K-12 school system.

**Physical Education Teaching Track** students must meet all requirements for the Physical Education Teaching Track and those requirements needed for Teacher Licensure (27).

**Physical Education Non-teaching Track** students must meet all requirements for the Physical Education Teaching Track except those needed for Teacher Licensure and an additional 12 credits listed below.

- **Program Prerequisite:** Students selecting the Physical Education Teaching Track, must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).
- **Minor:** Physical Education Teaching Track requires a teaching minor.
- **Grade Requirements:** A combined GPA of 3.0 is required for all courses used toward the major. No grade lower than a "C" is acceptable.
- **Credit Hour Requirements:** Physical Education Non-teaching Track-Total minimum credit hours required in the Major (48). Physical Education Teaching Track-Total minimum credit hours required in the Major (36). Any Physical Education Professional course older than 8 years will not be accepted toward degree requirements.

### Advisement

All Physical Education students are encouraged to meet with a faculty mentor or the department advisement coordinator each semester for course and program advisement. Call 801-626-7425 or send a message to [sjensen3@weber.edu](mailto:sjensen3@weber.edu) for more information or to schedule an appointment. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Students must apply for Physical Education program admittance by November 10 or March 10 of their **first** semester of taking Physical Education Professional [PEP] courses. Applications are available from the Physical Education Program Director. In addition, students applying for the Teaching Track must also meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog). Students will not be allowed to register for

PEP 3520, PEP 3520L, PEP 3630, PEP 3660, PEP 4700, PEP 4710, PEP 4860C, PEP 4830, or PEP 4990 until admission requirements have been met.

**Admission requirements include:**

1. Declared major or minor or BIS in a Physical Education or Coaching Education program.
2. Minimum cumulative GPA of 2.75.
3. Students may transfer a maximum of 12 physical education professional course credits from another institution per the Physical Education Program Director approval.
4. Fingerprinting/background check must be cleared prior to admission to the program. Provisional admission is granted for one semester only until the check is completed.
5. Sport specific skills and fitness tests must be completed and passed at the Control/Utilization Level and Health Fitness Zone. Sport specific skill and fitness testing is offered once during each of fall and spring semesters. Provisional admission may be granted for up to three semesters.
6. Student Disposition score above 20 in each course taken.
7. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

**Program Retention Requirements**

After admission into the Physical Education major/minor programs, students will be retained based on the following:

1. Minimum cumulative GPA of 3.0.
2. Earned grade of "C" or above for each required course.
3. Clear fingerprinting/background check.
4. Retention/improvement of sport specific and fitness skills.
5. Student Disposition score above 20 in each course.
6. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

**General Education**

Refer to Degree Requirements for Bachelor of Science requirements.

General Education courses required for the Physical Education major are:

NUTR LS 1020 Science and Application of Human Nutrition (3)

HTHS LS 1110 BioMed Core

See major and minor course prerequisites for additional General Education recommendation/requirements. Also see Teacher Education Requirements for recommended and required General Education courses for Physical Education Teaching Track Majors.

**Major Course Requirements for BS Degree**

Professional Knowledge (18 credit hours)

- PEP 2000 - Foundations of Physical Education **Credits: (3)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- ESS 3450 - Structural Kinesiology **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**
- PEP 3660 - Adapted Physical Education **Credits: (3)**

Field Experience (3 credit hours)

- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)**

Methods of Teaching Courses (15 credit hours)

- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**
- PEP 3630 - Methods of Teaching Elementary School Physical Education **Credits: (3)**
- PEP 4700 - Methods of Teaching Junior High School Physical Education **Credits: (3)**
- PEP 4710 - Methods of Teaching High School Physical Education **Credits: (3)**

Students choosing the Non-teaching Physical Education Track are required to take an additional 12 credits of the following courses:

- PEP 2100 - Introduction to Coaching Sport **Credits: (3)**
- PEP 2500 - Sport Pedagogy **Credits: (3)**
- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- ESS 4620 - Leadership Concepts for Human Performance Management **Credits: (3)**
- PEP 4830 - Directed Readings **Credits: (1-3)**
- OCRE 3050 - Recreation and Leisure in Society **Credits: (3)**
- OCRE 3600 - Administration and Management of Outdoor and Community Recreations Services **Credits: (3)**
- OCRE 3100 - Recreation Leadership and Group Facilitation **Credits: (3)**
- NUTR 3020 - Sports Nutrition **Credits: (3)**
- NUTR 4420 - Nutrition and Fitness **Credits: (3)**

## Exercise Science (BIS)

### Bachelor of Integrated Studies

- **Grade Requirements:** A minimum grade of "C" (2.0) in each of the courses taken for the three emphases.
- **Credit Hour Requirements:** The student must take a minimum of 18 credit hours each from at least three (3) different academic departments or recognized disciplines. A student has numerous possibilities in developing a BIS degree using the academic disciplines both in HPHP and campus wide.

*The course of study in each discipline must be approved by the appropriate program director.*

### BIS Possible Options

*These are only recommendations; many combinations and options for potential careers are possible.*

### Health Education & Health Promotion Emphasis

Community Health Promotion

Occupational Health Education

Clinical Health Education (See Department of Health Administrative Services in the Dr. Ezekiel R. Dumke College of Health Professions)

Family Life Health Promotion  
Gerontological Health Promotion  
Drug Abuse Prevention Education

### **Nutrition Emphasis**

Dietary Analysis  
Dietary Prescription  
Nutrition Education  
Weight Management  
Nutritional Ergogenics

### **Exercise Science Emphasis**

Coaching Sport  
Corporate Fitness  
Community Fitness  
Sports Medicine  
Sport Communication  
Commercial/Facility Management  
Sport Psychology

### **BIS Requirements**

*Also refer to individual minor programs.*

## **Exercise Science Emphasis**

Upper Division Hours 13, Total Hours Required 18

- HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)**
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription **Credits: (3)**
- ESS 3450 - Structural Kinesiology **Credits: (3)**
- ESS 3500 - Biomechanics **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- ESS 4370 - Clinical Exercise Physiology **Credits: (3)**
- ESS 4990 - Senior Seminar **Credits: (1)**

## **Health Promotion (BIS)**

### **Bachelor of Integrated Studies**

- **Grade Requirements:** A minimum grade of "C" (2.0) in each of the courses taken for the three emphases.
- **Credit Hour Requirements:** The student must take a minimum of 18 credit hours each from at least three (3) different academic departments or recognized disciplines. A student has numerous possibilities in developing a BIS degree using the academic disciplines both in HPHP and campus wide.

*The course of study in each discipline must be approved by the appropriate program director.*

## **BIS Possible Options**

*These are only recommendations; many combinations and options for potential careers are possible.*

### **Health Education & Health Promotion Emphasis**

Community Health Promotion  
Occupational Health Education  
Clinical Health Education (*See Department of Health Administrative Services in the Dr. Ezekiel R. Dumke College of Health Professions*)  
Family Life Health Promotion  
Gerontological Health Promotion  
Drug Abuse Prevention Education

### **Nutrition Emphasis**

Dietary Analysis  
Dietary Prescription  
Nutrition Education  
Weight Management  
Nutritional Ergogenics

### **Exercise Science Emphasis**

Coaching Sport  
Corporate Fitness  
Community Fitness  
Sports Medicine  
Sport Communication  
Commercial/Facility Management  
Sport Psychology

### **BIS Requirements**

*Also refer to individual minor programs.*

## **Health Promotion Emphasis**

21 Credit Hours Total Required

Required Courses (13 credits)

- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)** \* OL
- HLTH 3000 - Foundations of Health Promotion **Credits: (3)** \*\* OL
- HLTH 4013 - Health Promotion Research and Assessment **Credits: (3)** \*\*\* OL
- HLTH 4150 - Needs Assessment & Planning Health Promotion Programs **Credits: (4)** \*\*\* OL

Elective Courses (8-9 credits)

- HLTH 1110 - Stress Management **Credits: (3)** OL & IS
- HLTH 2400 - Mind/Body Wellness **Credits: (3)**
- HLTH 2700 - Consumer Health **Credits: (3)** OL
- HLTH 3100 - Applications of Technology in Health Promotion **Credits: (3)**

- HAS 3150 - Community Health Agencies and Services **Credits: (3)** IS
- HLTH 3160 - Principles of Health Behavior **Credits: (3)**
- HLTH 3200 - Methods in Health Education **Credits: (3)** \*\*\*
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)** OL
- HLTH 3500 - Human Sexuality **Credits: (3)** OL
- HLTH 4250 - Contemporary Health Issues of Adolescents **Credits: (2)** OL
- HLTH 4700 - Wellness Coaching **Credits: (3)**

Notes:

*OL = Online option available some semesters*

*IS = Independent Study option available some semesters*

*\*If this pre-requisite course is used to fulfill the Social Science General Education requirement, the three credit hours cannot be counted in the BIS Health Promotion emphasis 21 credit hour requirements.*

*\*\*This course can be taken after completing the HLTH 1030 pre-requisite.*

*\*\*\*This course can be taken after completing the HLTH 1030 and HLTH 3000 pre-requisite.*

## Physical Education (BIS)

### Bachelor of Integrated Studies

- **Grade Requirements:** A minimum grade of "C" (2.0) in each of the courses taken for the three emphases.
- **Credit Hour Requirements:** The student must take a minimum of 18 credit hours each from at least three (3) different academic departments or recognized disciplines. A student has numerous possibilities in developing a BIS degree using the academic disciplines both in HPHP and campus wide.

*The course of study in each discipline must be approved by the appropriate program director.*

#### BIS Possible Options

*These are only recommendations; many combinations and options for potential careers are possible.*

#### Health Education & Health Promotion Emphasis

Community Health Promotion

Occupational Health Education

Clinical Health Education (*See Department of Health Administrative Services in the Dr. Ezekiel R. Dumke College of Health Professions*)

Family Life Health Promotion

Gerontological Health Promotion

Drug Abuse Prevention Education

#### Nutrition Emphasis

Dietary Analysis

Dietary Prescription

Nutrition Education

Weight Management  
Nutritional Ergogenics

### **Exercise Science Emphasis**

Coaching Sport  
Corporate Fitness  
Community Fitness  
Sports Medicine  
Sport Communication  
Commercial/Facility Management  
Sport Psychology

### **BIS Requirements**

*Also refer to individual minor programs.*

## **Physical Education Emphasis**

24 Credit Hours Total Required

Complete the following Required Courses (16 credit hours)

- PEP 2000 - Foundations of Physical Education **Credits: (3)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**
- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**
- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)** \*

Note:

*\*May not be taken until all other requirements have been met.*

In addition, four of the following courses are required. (8 Credit hours)

*These classes need to be taken **prior to PEP 3520.***

- PEP 3240 - Skill Development and Methods of Field Sports **Credits: (2)**
- PEP 3242 - Skill Development and Methods of Court Sports **Credits: (2)**
- PEP 3260 - Methods of Teaching Lifelong Activities **Credits: (2)**
- PEP 3262 - Methods of Teaching Individual Sports **Credits: (2)**
- PEP 3264 - Skill Development and Methods of Teaching Racket Sports **Credits: (2)**
- PEP 3270 - Methods of Teaching Aerobic Conditioning **Credits: (2)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**

## **Admission Requirements**

Students must apply for Physical Education program admittance by November 10 or March 10 of their **first** semester of taking Physical Education Professional [PEP] courses. Applications are available from the Physical Education Program Director. In addition, students applying for the Teaching Track must meet the Teacher Education admission and licensure requirements (see Teacher Education Requirements in this catalog). In addition, students applying for the

Physical Education Specialization grades 1-8 *must also meet the Teacher Education* admission and licensure requirements. Students will not be allowed to register for PEP 3520, PEP 3520L, PEP 3630, PEP 3660, PEP 4830, 4830C, or PEP 4990 until admission requirements have been met.

**Admission requirements include:**

1. Declared major or minor or BIS in a Physical Education or Coaching Education program.
2. Minimum cumulative GPA of 2.75.
3. Students may transfer a maximum of 12 physical education professional course credits from another institution per the Physical Education Program Director approval.
4. Fingerprinting/background check must be cleared prior to admission to the program. Provisional admission is granted for one semester only until the check is completed.
5. Sport specific skills and fitness tests must be completed and passed at the Control/Utilization Level and Health Fitness Zone. Sport specific skill and fitness testing is offered once during each of fall and spring semesters. Provisional admission may be granted for up to three semesters.
6. Student Disposition score above 20 in each course taken.
7. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

**Program Retention Requirements**

After admission into the Physical Education major/minor programs, students will be retained based on the following:

1. Minimum cumulative GPA of 2.85.
2. Earned grade of C- or above for each required course.
3. Clear fingerprinting/background check.
4. Retention/improvement of sport specific and fitness skills.
5. Student Disposition score above 20 in each course.
6. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

## General Education

Refer to Degree and General Education Requirements for Bachelor of Science requirements.

A General Education course required for all Physical Education minors is:

NUTR LS 1020 Science and Application of Human Nutrition (3)

HTHS LS 1110 BioMed Core (4)

See major and minor course prerequisites for additional General Education recommendation/requirements.

## Recreation (BIS)

### Bachelor of Integrated Studies

- **Grade Requirements:** A minimum grade of "C" (2.0) in each of the courses taken for the three emphases.
- **Credit Hour Requirements:** The student must take a minimum of 18 credit hours each from at least three (3) different academic departments or recognized disciplines. A student has numerous possibilities in developing a BIS degree using the academic disciplines both in HPHP and campus wide.

*The course of study in each discipline must be approved by the appropriate program director.*

## **BIS Possible Options**

*These are only recommendations; many combinations and options for potential careers are possible.*

### **Health Education & Health Promotion Emphasis**

Community Health Promotion  
Occupational Health Education  
Clinical Health Education (*See Department of Health Administrative Services in the Dr. Ezekiel R. Dumke College of Health Professions*)  
Family Life Health Promotion  
Gerontological Health Promotion  
Drug Abuse Prevention Education

### **Nutrition Emphasis**

Dietary Analysis  
Dietary Prescription  
Nutrition Education  
Weight Management  
Nutritional Ergogenics

### **Exercise Science Emphasis**

Coaching Sport  
Corporate Fitness  
Community Fitness  
Sports Medicine  
Sport Communication  
Commercial/Facility Management  
Sport Psychology

### **BIS Requirements**

*Also refer to individual minor programs.*

## **Recreation Emphasis**

Leisure Services (12 hours)

- OCRE 3050 - Recreation and Leisure in Society **Credits: (3)**
- OCRE 3600 - Administration and Management of Outdoor and Community Recreations Services **Credits: (3)**
- OCRE 3100 - Recreation Leadership and Group Facilitation **Credits: (3)**

Electives

- PE 1130 - Golf, Level I **Credits: (1)**
- REC 1520 - Hiking, Level I **Credits: (1)**
- REC 1527 - Rock Climbing, Level I **Credits: (1)**
- REC 1610 - Skiing, Level I **Credits: (1)**
- REC 1630 - Cross-Country Skiing, Level I **Credits: (1)**
- OCRE 2610 - Introduction to Outdoor Living Skills I **Credits: (2)**
- OCRE 3300 - Inclusive and Adaptive Recreation **Credits: (3)**

- OCRE 4550 - Outdoor Education Philosophies & Principles **Credits: (3)**
- OCRE 4930 - Outdoor Education Workshop **Credits: (2)**

## **Sport Coaching Education (BIS)**

### **20 credits/8 upper division**

Contact-Dr. Brian McGladrey, SB 125C, 801-626-8578

- AT 2175 - Introduction to Sports Medicine **Credits: (3)**
- PEP 2100 - Introduction to Coaching Sport **Credits: (3)**
- PEP 2500 - Sport Pedagogy **Credits: (3)**
- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- PEP 4860C - Field Experience Coaching **Credits: (3)**

## **Health Promotion Emphasis, Health Administrative Services Minor**

### **Health Administrative Services Minor**

- **Grade Requirements:** A grade of “C” or better in courses used toward the minor.
- **Credit Hour Requirements:** Between 16 and 24 credit hours depending on emphasis.

### **Course Requirements for Health Promotion Emphasis**

Required Courses (16 credit hours)

- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)** or
- HLTH 3150 - Community Health Agencies and Services **Credits: (3)**
- HLTH 3000 - Foundations of Health Promotion **Credits: (3)**
- HLTH 3200 - Methods in Health Education **Credits: (3)** \*
- HLTH 4150 - Needs Assessment & Planning Health Promotion Programs **Credits: (4)**

Elective Courses (6 credit hours minimum)

- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1110 - Stress Management **Credits: (3)**
- HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)**

- HLTH 2700 - Consumer Health **Credits: (3)**
- HLTH 3320 - Health and Nutrition in the Older Adult **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 3420 - Multicultural Health and Nutrition **Credits: (3)**
- HLTH 3500 - Human Sexuality **Credits: (3)**
- HLTH 4013 - Health Promotion Research and Assessment **Credits: (3)**
- HLTH 4220 - Women's Health Issues **Credits: (3)**
- HLTH 4250 - Contemporary Health Issues of Adolescents **Credits: (2)**
- HLTH 4800 - Individual Projects **Credits: (1-3)**
- HLTH 4860 - Field Experience **Credits: (1-6)**
- HLTH 4890 - Cooperative Work Experience **Credits: (1-6)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- HAS 4410 - Clinical Instructional Design and Evaluation **Credits: (3)** \*
- HAS 4420 - Clinical Instructional Skills **Credits: (3)**
- HAS 4620 - International Health and Health Care **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**

Note:

\* HAS 4410 may be substituted for HLTH 3200.

## Health Promotion: (Community, Worksite, Clinical, School) Minor

- **Grade Requirements:** A grade of "C" or better in all minor coursework, in addition to a minimum GPA of 2.50 in minor coursework.
- **Credit Hours Requirements:** Minimum of 22 credit hours.

### Required Courses (13 credit hours)

- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)**
- HLTH 3000 - Foundations of Health Promotion **Credits: (3)**
- HLTH 4013 - Health Promotion Research and Assessment **Credits: (3)**
- HLTH 4150 - Needs Assessment & Planning Health Promotion Programs **Credits: (4)**

### Electives

Select 9 credit hours from the following

- HLTH 1110 - Stress Management **Credits: (3)**

- HLTH 2400 - Mind/Body Wellness **Credits: (3)**
- HLTH 2700 - Consumer Health **Credits: (3)**
- HLTH 3100 - Applications of Technology in Health Promotion **Credits: (3)**
- HLTH 3160 - Principles of Health Behavior **Credits: (3)**
- HLTH 3200 - Methods in Health Education **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 3500 - Human Sexuality **Credits: (3)**
- HLTH 4220 - Women's Health Issues **Credits: (3)**
- HLTH 4250 - Contemporary Health Issues of Adolescents **Credits: (2)**
- HLTH 4800 - Individual Projects **Credits: (1-3)**
- HLTH 4860 - Field Experience **Credits: (1-6)**
- HLTH 2890 - Cooperative Work Experience **Credits: (1-6)**
- HLTH 4890 - Cooperative Work Experience **Credits: (1-6)**
- HLTH 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**

## **Courses Required for Minors Seeking Teaching Certification**

*Selection/substitution of courses to meet the minimum 21 hours for minor must be approved by an advisor.*

- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)**
- HLTH 1110 - Stress Management **Credits: (3)**
- HLTH 2400 - Mind/Body Wellness **Credits: (3)**
- HLTH 3000 - Foundations of Health Promotion **Credits: (3)**
- HLTH 3200 - Methods in Health Education **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 3500 - Human Sexuality **Credits: (3)**

### Notes:

Students are required to have a current CPR/First Aid Card. This can be obtained through multiple mechanisms, including training through the Red Cross, or by taking AT 1300 - First Aid: Responding to Emergencies (2 credits), AT 2175 - Introduction to Sports Medicine (through concurrent enrollment), or AT 2300 - Emergency Response (3 credits).

*Students must maintain a GPA of 3.0 or higher in minor coursework, and must obtain a "C" or higher in each course.*

*A teaching major and the Teaching Education Professional Knowledge courses are required for teacher certification.*

*Students must complete 25 semester hours of health courses to qualify to take the Certified Health Education Specialist (CHES) examination. If you are interested in taking the CHES examination, please speak with an academic advisor to ensure that you are taking courses that will satisfy CHES examination eligibility requirements. This minor is designed to meet the standards associated with the Utah State Office of Education Health Education Endorsement and not CHES examination eligibility.*

# Outdoor and Community Recreation Education Minor

- **Grade Requirements:** A minimum grade of "C" (2.0) in each of the courses used toward the minor.
- **Credit Hour Requirements:** Complete a minimum of 18 credit hours selected and approved from among the following:

## Course Requirements for Minor

Required Core Courses (9 credit hours)

- OCRE 3050 - Recreation and Leisure in Society **Credits: (3)**
- OCRE 3100 - Recreation Leadership and Group Facilitation **Credits: (3)**
- OCRE 3320 - Adventure Programming **Credits: (3)**

Elective Courses (9 credit hours - 7 credits from OCRE, 2 credits from REC)

*Select 7 credit hours from the following:*

- OCRE 2500 - Introduction to Outdoor Pursuits **Credits: (4)**
- OCRE 2610 - Introduction to Outdoor Living Skills I **Credits: (2)**
- OCRE 2890 - Cooperative Work Experience **Credits: (1-9)**
- OCRE 3230 - Wilderness Nutrition & Backcountry Cooking **Credits: (4)**
- OCRE 3300 - Inclusive and Adaptive Recreation **Credits: (3)**
- OCRE 3500 - Community Recreation and Park Planning **Credits: (3)**
- OCRE 3600 - Administration and Management of Outdoor and Community Recreations Services **Credits: (3)**
- OCRE 3700 - Recreation and Sports Facilities and Events Management **Credits: (3)**
- OCRE 3900 - Commercial Outdoor Recreation **Credits: (3)**
- OCRE 4020 - Nature Interpretation **Credits: (3)**
- OCRE 4300 - Trends and Ethical Issues in Recreation Services **Credits: (3)**
- OCRE 4550 - Outdoor Education Philosophies & Principles **Credits: (3)**
- OCRE 4800 - Individual Projects **Credits: (1-3)**
- OCRE 4890 - Cooperative Work Experience **Credits: (1-6)**
- OCRE 4930 - Outdoor Education Workshop **Credits: (2)**

Choose 2 Elective credit hours from REC

- REC 1316 - Stand-Up Paddleboard **Credits: (1)**
- REC 1350 - Scuba Diving, Level I **Credits: (1)**
- REC 1351 - Scuba Diving, Level II **Credits: (1)**
- REC 1505 - Kayaking, Level I **Credits: (1)**
- REC 1510 - Fishing, Level I **Credits: (1)**
- REC 1511 - Fishing, Level II **Credits: (1)**
- REC 1512 - Fishing, Level III **Credits: (1)**
- REC 1520 - Hiking, Level I **Credits: (1)**
- REC 1521 - Hiking, Level II **Credits: (1)**
- REC 1522 - Hiking, Level III **Credits: (1)**
- REC 1527 - Rock Climbing, Level I **Credits: (1)**
- REC 1528 - Rock Climbing, Level II **Credits: (1)**
- REC 1529 - Rock Climbing, Level III **Credits: (1)**

- REC 1610 - Skiing, Level I **Credits: (1)**
- REC 1611 - Skiing, Level II **Credits: (1)**
- REC 1612 - Skiing, Level III **Credits: (1)**
- REC 1620 - Snowboarding, Level I **Credits: (1)**
- REC 1621 - Snowboarding, Level II **Credits: (1)**
- REC 1622 - Snowboarding, Level III **Credits: (1)**
- REC 1630 - Cross-Country Skiing, Level I **Credits: (1)**
- REC 1631 - Cross-Country Skiing, Level II **Credits: (1)**
- REC 1632 - Cross-Country Skiing, Level III **Credits: (1)**

## Physical Education Minor

The Department of Health Promotion and Human Performance offers three undergraduate minors in Physical Education. The 1) Physical Education Non-teaching Minor is designed to prepare students to work in a physical activity venue. A major must also be selected. The 2) Physical Education Minor is designed to prepare students to teach physical education in a K-12 school system. The 3) Physical Education/Coaching Education Teaching Dual Minor is designed to prepare students to teach physical education and to coach in a K-12 school system. A teaching major is to be selected in addition to either of the teaching minors to prepare students to enter the Teacher Education program and to become licensed to teach in a K-12 school system.

**Physical Education Non-teaching Minor** students must meet all requirements listed below.

**Physical Education Minor and Physical Education/Coaching Education Dual Teaching Minor** students must meet all requirements for the Physical Education Minor or the Physical Education/Coaching Education Teaching Dual Teaching Minor and those requirements needed for Teacher Licensure (27).

- **Grade Requirements:** A combined GPA of 3.0 is required for all courses used toward the minor. No grade lower than a "C" is acceptable.
- **Credit Hour Requirements:** Physical Education Non-teaching Minor - a total of 29-30 credit hours are required. Physical Education/Coaching Education Dual Teaching Minor - a total of 46-47 credit hours are required. Physical Education Minor - a total of 27 credit hours are required. In addition to the required credit hours, Physical Education/Coaching Education Dual Teaching Minor and Physical Education Minor students must meet the requirements of their selected teaching major and the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

### General Education

Refer to Degree Requirements for Bachelor of Science requirements.

A General Education course required for all Physical Education minors is:

NUTR LS 1020 Science and Application of Human Nutrition (3)

HTHS LS 1110 BioMed Core (4)

See major and minor course prerequisites for additional General Education recommendation/requirements. Also see Teacher Education Requirements for recommended and required General Education courses for Physical Education/Coaching Education Dual Teaching Minors and Physical Education Track Minors.

## Admission Requirements

Students must apply for Physical Education program admittance by November 10 or March 10 of their **first** semester of taking Physical Education Professional [PEP] courses. Applications are available from the Physical Education Program Director. In addition, students applying for the Teaching Track must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog). In addition, students applying for the Physical Education Specialization grades 1-8 *must also meet the Teacher Education* admission and licensure requirements. Students will not be allowed to register for PEP 3520, PEP 3520L, PEP 3630, PEP 3660, PEP 4700, PEP 4830, PEP 4860C, or PEP 4990 until admission requirements have been met.

### Admission requirements include:

1. Declared major or minor or BIS in a Physical Education or Coaching Education program.
2. Minimum cumulative GPA of 2.75.
3. Students may transfer a maximum of 12 physical education professional course credits from another institution per the Physical Education Program Director approval.
4. Fingerprinting/background check must be cleared prior to admission to the program. Provisional admission is granted for one semester only until the check is completed.
5. Sport specific skills and fitness tests must be completed and passed at the Control/Utilization Level and Health Fitness Zone. Sport specific skill and fitness testing is offered once during each of fall and spring semesters. Provisional admission may be granted for up to three semesters.
6. Student Disposition score above 20 in each course taken.
7. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

### Program Retention Requirements

After admission into the Physical Education major/minor programs, students will be retained based on the following:

1. Minimum cumulative GPA of 3.0.
2. Earned grade of "C" or above for each required course.
3. Clear fingerprinting/background check.
4. Retention/improvement of sport specific and fitness skills.
5. Student Disposition score above 20 in each course.
6. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

## Course Requirements for the Physical Education Minor

### Professional Knowledge (15 credit hours)

- PEP 2000 - Foundations of Physical Education **Credits: (3)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**
- PEP 3660 - Adapted Physical Education **Credits: (3)**

### Field Experiences (3 credit hours)

- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)**

### Methods of Teaching (9 credit hours)

- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**

- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**
- PEP 4700 - Methods of Teaching Junior High School Physical Education **Credits: (3)**

## **Course Requirements for the Physical Education/Sport Coaching Education Dual Teaching Minor**

### Professional Knowledge (26 credit hours)

- PEP 2000 - Foundations of Physical Education **Credits: (3)**
- PEP 2100 - Introduction to Coaching Sport **Credits: (3)**
- PEP 2500 - Sport Pedagogy **Credits: (3)**
- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**

### Field Experiences (6 credit hours)

- PEP 4860C - Field Experience Coaching **Credits: (3)**
- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)**

### Skill Development and Methods of Teaching (6 credit hours)

- PEP 3240 - Skill Development and Methods of Field Sports **Credits: (2)**
- PEP 3242 - Skill Development and Methods of Court Sports **Credits: (2)**
- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**

### Required Support Course (2-3 credit hours)

- HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)** or
- AT 2175 - Introduction to Sports Medicine **Credits: (3)**

## **Sport Coaching Education Minor**

*This minor cannot be counted as a teaching minor.*

- Grade Requirements: A minimum grade of "C" in each of the courses, and a minimum GPA of 3.0 for all program coursework.
- Credit Hour Requirements: A total of 19-20 semester hours are required for the Sport Coaching Education minor.

## Course Requirements for Minor

### Required Courses (19-20 credit hours)

- HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)** or
- AT 2175 - Introduction to Sports Medicine **Credits: (3)**
  
- PEP 2100 - Introduction to Coaching Sport **Credits: (3)**
- PEP 2500 - Sport Pedagogy **Credits: (3)**
- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**
- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- PEP 4860C - Field Experience Coaching **Credits: (3)**

## Physical Education Teaching Minor

### Physical Education Minor

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**Physical Education Non-teaching Minor** students must meet all requirements listed below.

**Physical Education Minor and Physical Education/Coaching Education Dual Teaching Minor** students must meet all requirements for the Physical Education Minor or the Physical Education/Coaching Education Teaching Dual Teaching Minor and those requirements needed for Teacher Licensure (27).

- **Grade Requirements:** A combined GPA of 3.0 is required for all courses used toward the minor. No grade lower than a "C" is acceptable.
- **Credit Hour Requirements:** Physical Education Non-teaching Minor - a total of 29-30 credit hours are required. Physical Education/Coaching Education Dual Teaching Minor - a total of 46-47 credit hours are required. Physical Education Minor - a total of 27 credit hours are required. In addition to the required credit hours, Physical Education/Coaching Education Dual Teaching Minor and Physical Education Minor students must meet the requirements of their selected teaching major and the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

### General Education

Refer to Degree and General Education Requirements for Bachelor of Science requirements.

A General Education course required for all Physical Education minors is:

NUTR LS 1020 Science and Application of Human Nutrition (3)

HTHS LS 1110 BioMed Core (4)

See major and minor course prerequisites for additional General Education recommendation/requirements. Also see Teacher Education Requirements for recommended and required General Education courses for Physical Education/Coaching Education Dual Teaching Minors and Physical Education Track Minors.

## Admission Requirements

Students must apply for Physical Education program admittance by November 10 or March 10 of their **first** semester of taking Physical Education Professional [PEP] courses. Applications are available from the Physical Education Program Director. In addition, students applying for the Teaching Track must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog). In addition, students applying for the Physical Education Specialization grades 1-8 *must also meet the Teacher Education* admission and licensure requirements. Students will not be allowed to register for PEP 3520, PEP 3520L, PEP 3630, PEP 3660, PEP 4700, PEP 4830, PEP 4860C, or PEP 4990 until admission requirements have been met.

### Admission requirements include:

1. Declared major or minor or BIS in a Physical Education or Coaching Education program.
2. Minimum cumulative GPA of 2.75.
3. Students may transfer a maximum of 12 physical education professional course credits from another institution per the Physical Education Program Director approval.
4. Fingerprinting/background check must be cleared prior to admission to the program. Provisional admission is granted for one semester only until the check is completed.
5. Sport specific skills and fitness tests must be completed and passed at the Control/Utilization Level and Health Fitness Zone. Sport specific skill and fitness testing is offered once during each of fall and spring semesters. Provisional admission may be granted for up to three semesters.
6. Student Disposition score above 20 in each course taken.
7. Student must adhere to the Health Promotion and Human Performance Department 'Student Conduct Policy' available online at <http://www.weber.edu/wsuiimages/HPHP/StudentCode/HPHPStudentCode.pdf>

## Program Retention Requirements

After admission into the Physical Education major/minor programs, students will be retained based on the following:

1. Minimum cumulative GPA of 3.0.
2. Earned grade of "C" or above for each required course.
3. Clear fingerprinting/background check.
4. Retention/improvement of sport specific and fitness skills.
5. Student Disposition score above 20 in each course.
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- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**
- PEP 3660 - Adapted Physical Education **Credits: (3)**

Field Experiences (3 credit hours)

- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)**

#### Methods of Teaching (9 credit hours)

- PEP 3280 - Methods of Teaching Strength and Conditioning **Credits: (3)**
- PEP 3290 - Methods of Teaching Fitness for Life **Credits: (3)**
- PEP 4700 - Methods of Teaching Junior High School Physical Education **Credits: (3)**

#### Course Requirements for the Physical Education/Sport Coaching Education Dual Teaching Minor

##### Professional Knowledge (26 credit hours)

- PEP 2000 - Foundations of Physical Education **Credits: (3)**
- PEP 2100 - Introduction to Coaching Sport **Credits: (3)**
- PEP 2500 - Sport Pedagogy **Credits: (3)**
- PEP 2700 SS - Sociohistorical Aspects of Sport **Credits: (3)**
- PEP 3100 - Principles of Motor Learning and Motor Development **Credits: (3)**
- PEP 3400 - Sport Psychology for Coaches **Credits: (3)**
- ESS 3510 - Exercise Physiology **Credits: (3)**
- PEP 3520 - Curriculum and Assessment **Credits: (2)**
- PEP 3520L - Curriculum and Assessment Lab **Credits: (1)**

##### Field Experiences (6 credit hours)

- PEP 4860C - Field Experience Coaching **Credits: (3)**
- PEP 4990 - Field Experience/Senior Seminar **Credits: (3)**

##### Skill Development and Methods of Teaching (6 credit hours)

- PEP 3240 - Skill Development and Methods of Field Sports **Credits: (2)**
- PEP 3242 - Skill Development and Methods of Court Sports **Credits: (2)**

##### Required Support Course (2-3 credit hours)

- HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)** or
- AT 2175 - Introduction to Sports Medicine **Credits: (3)**

## Health Promotion and Human Performance Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Physical Education Departmental Honors

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# Secondary Physical Education Teachers for Elementary School Dual Certification

For individuals holding a secondary physical education certificate who desire to work in the elementary schools, dual certification is available. See the director of physical education (see Department of Health Promotion and Human Performance) for more information.

## Department of Teacher Education

**Department Chair:** Kristin Hadley

**Location:** McKay Education Building, Room 234

**Telephone Contact:** Lynda L. Olmstead 801-626-7171

**Advisement Contacts:** Kristin Radulovich 801-626-6309; Natalie Struhs 801-626-6636

**Professors:** Melina Alexander, Michael Cena, Forrest Crawford, Kristin Hadley, Jack Mayhew, Louise Moulding, Peggy Saunders, Penée Stewart, Natalie Allen Williams; **Associate Professors:** Vincent Bates, David Byrd, Ann Ellis;

**Assistant Professors:** Shirley Dawson, J. Roberto García, DeeDee Mower, Daniel Pyle, Clay Rasmussen, Sheryl Rushton, Gina Shelley, Mychelle Smith, Stephanie Speicher, Nadia Wrosch

The major purpose of the professional education programs in teacher education is to prepare candidates for teaching in elementary and secondary schools. Preparation is also provided for teachers of students with mild to moderate disabilities with the special education mild/moderate license. The department prepares students for endorsements in Mathematics, ESL (English as a Second Language), Dual Language Immersion, Basic Reading (graduate level only), and Education of the Gifted (graduate level only). All programs are accredited through the Teacher Education Accreditation Council (TEAC).

The preparation for teaching falls academically within four major categories: University General Education, support courses, subject specialization, and professional education.

1. University General Education requirements -- In selecting courses to satisfy the general education requirements, candidates should note the general education courses recommended and/or required in their major and/or professional education requirement sheets available in the Teacher Education Advisement Center (ED 230).
2. Support courses
3. Specializations are required of all elementary candidates. Elementary education majors have two track options; K-6 and 1-8. The K-6 track requires one 9 credit specialization and a 9 credit early childhood specialization while the 1-8 track requires a 18 credit specialization or a teaching minor. The professional education program outlines acceptable subject specialization areas and requirements. Special Education majors choose one 9-hour specialization or a teaching minor. Secondary candidates completing a teaching major may be required to complete a teaching minor (refer to the teaching major program requirements). The teaching major and teaching minor must be in subjects taught in Utah public secondary schools.
4. Professional Education courses help the prospective teacher learn about children, the nature of the learning process, and how to provide desirable learning experiences. To meet licensure requirements, secondary school candidates are required to complete a minimum of 24 semester hours of professional course work; 55 semester hours are required of the prospective elementary school teacher.

Professional course work in the program is organized into sequential levels. As students move through the program, they are required to demonstrate in a variety of ways the knowledge, skills and dispositions that embody the department's organizing theme and program model.

It is important that interested students contact the Teacher Education Advisement Center (ED 230) as quickly as they decide to become a teacher. Specific program admission requirements, required courses, and recommended general education course work are available.

## Admission to Teacher Education

Admission to the Teacher Education Programs is a separate process from general university admission. The Teacher Education programs maintain a competitive admissions process. **Applicants are provisionally admitted each semester after submitting their application materials and meeting the minimum admission criteria listed below.** Students are admitted two times per year: fall semester and spring semester. Applicants are evaluated using a 100 point system using GPA, Praxis II/ACT scores, and interviews.

### Minimum Admission Requirements

1. Formal Application submitted online and provisional Admission form submitted to Teacher Education Advisement Center (ED 230 ) by the deadline date. Transcripts of all college course work must accompany the application along with a current degree evaluation.
2. At least 40 semester hours of general education and relevant prerequisite courses.

### Those intending to teach *Special Education* or teach at the *elementary level*, please note:

*The Professional Education component of the Special Education major and the Elementary Education major requires four semesters to complete. Therefore, it is very important that candidates have completed the General Education requirements and have taken most of the required Support Courses prior to entering the program. Because of possible scheduling difficulties, failure to do so could mean spending an extra semester (or more) in completing the program.*

### Those intending to teach at the *secondary level*, please note:

*The Professional Education component of the Secondary Education program requires two semesters to complete. Therefore, it is very important that candidates have completed the General Education requirements and most of the teaching major and minor requirements prior to entering the program. Because of possible scheduling difficulties, failure to do so could mean spending an extra semester (or more) in completing the program.*

3. **Passing the appropriate Praxis II Content test or passing the ACT with the composite score of 21 with a verbal/English score no less than 20 and a mathematics/quantitative score of no less than 19 is required for all programs.** The Utah State Office of Education specifies the passing score for each test. **Students will not be considered for admission if they do not meet the state specified passing score on the Praxis II or ACT.**
4. Sign up for an interview in the Advisement Center when you turn in application materials (the schedule will be available approximately one (1) month prior to the interview dates).
5. Composition general education requirement completed (grade "C" or above in ENGL 2010 EN, or equivalent).
6. Quantitative Literacy requirement completed (see General Requirements in this catalog).  
*Note: Elementary, Special Education, and Early Childhood Education majors need MATH 1050 as prerequisite for Mathematics Education support courses.*
7. Communication competency completed (grade "B-" or above in COMM 1020 or COMM 2110 or equivalent).
8. University Computer and Information Literacy competency completed (see General Requirements in this catalog).
9. EDUC 1010 Exploring Teaching or approved equivalent course completed.
10. Teacher Education also recognizes specific program and diversity needs of professional education and reserves the right to consider such factors in the admission of candidates.
11. For teacher education applicants who are English language learners, an additional requirement of 6.5 on each of the four sections of the International English Language Testing System (IELTS) test is required for admission.

### Additional Notes

1. **Fingerprinting/background check must be completed immediately after being admitted.** See Teacher Education Advisement Center (ED 230 ) for further information.
2. Students are provisionally admitted to a specific teacher education program: (1) early childhood education; (2) elementary education; (3) special education; (4) secondary education.
3. Provisional admission to a specific program is valid for a period of five years. If a student has not completed the program within the five-year period or desires to pursue a different program, he/she must seek readmission

under the current admission standards and complete current course/program requirements. Changes in state licensure requirements may necessitate more immediate program changes.

4. Professional education credits older than five years at the time of program admission generally will not be counted. However, students may revalidate outdated course work by following procedures available in the Teacher Education Advisement Center, ED 230.
5. Applicants with BS or BA degrees seeking initial licensure in Early Childhood Education, Elementary Education, Special Education, or Secondary Education, must submit a formal application and transcripts and complete the interview/statement (see Requirements 1, 2, 3 [if applicable] of Admission to Teacher Education Program). They are then placed in the pool with others seeking admission. A Graduate Certificate in Teaching is also available through the Master of Education program.
6. Applicants who hold Bachelor's degrees older than five years and who have not had more recent relevant course work or work experiences related to their major and minor must take at least two courses in their major and one course in their minor as designated by the academic department.
7. Applicants with an earned graduate degree seeking initial licensure must satisfactorily complete requirements 1, 2, 4, and 5. They are then placed in the pool with others seeking provisional admission.
8. Data are collected on students admitted to the Teacher Education program for the purposes of national accreditation and program improvement. No personal information is used in this process.

### **Early Childhood Education Major**

The Departments of Child and Family Studies and Teacher Education offer a major in Early Childhood Education with licensure for teaching in programs which serve children from birth through eight years of age (Pre-K through 3rd grade). Requirements are listed under the Department of Child and Family Studies. See Room ED 248 for additional information.

### **Elementary Education Major**

Students preparing to teach in elementary schools graduate with a major in Elementary Education. The elementary education major has a K-6 track and a 1-8 track.

The Teacher Education Advisement Center and faculty advisors from the Department of Teacher Education are available to advise prospective teachers. A program requirement sheet is available from the Teacher Education Advisement Center in Room 230 in the McKay Education Building. It is to the student's advantage to begin program planning early.

### **Interdisciplinary Minors**

The Teacher Education Department participates in the interdisciplinary Linguistics Minor Program. Students who wish to enroll in this program should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

## **Pre-Education (AS)**

The Associate of Science in Pre-Education is a two-year program designed to prepare students for the elementary or special education bachelors programs. Students completing this program will develop skills and get the hands-on experience necessary to be accepted into the professional courses offered at the university level. Course work will satisfy the General Education requirements for the first two years of a bachelor's degree in elementary or special education. Specific requirements for the bachelor's degrees in elementary education and special education can be found at Department of Teacher Education.

- **Credit Hour Requirements:** A total of 60 credit hours are required for graduation; 24 or these are required Education-related and support courses and 36 are required general education courses.

## Advisement

All students should meet with an advisor in the Teacher Education Advisement Center and from the Department of Teacher Education. Call 801-626-6309 for more information or to schedule an appointment. See [weber.edu/COE/tedadvise.html](http://weber.edu/COE/tedadvise.html)

## General Education

Refer to Degree Requirements for Associate of Science requirements. The following courses required for the AS Degree in Pre-Education will also fulfill general education requirements: CHF SS/DV 1500, COMM HU 1020 or COMM HU 2110, GEOG SS/DV 1300 or GEOG SS/DV 1520, MATH QL 1050. It is recommended that students fulfill the Computer and Information Literacy Part D requirement with LIBS 2604/EDUC 2604.

## Major Course Requirements for AS Degree

### Required Education-related Courses (29-31 credit hours)

- EDUC 1010 - Exploring Teaching **Credits: (3)**
- EDUC 2010 - Human Exceptionality **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)**
  
- COMM 1020 HU - Principles of Public Speaking **Credits: (3) OR**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
  
- ENGL 3300 - Children's Literature **Credits: (3)**
  
- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3) OR**
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**
  
- MATH 1050 QL - College Algebra **Credits: (4)** *grade of C or above*
- MATH 2010 - Arithmetic for Teachers **Credits: (3)** *grade of C or above*
- MATH 2020 QL - Mathematics for Elementary Teachers II **Credits: (3)** *grade of C or above*
  
- **AND one of the following:**
- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)** Can not double count as Gen Ed
- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**
- EDUC 3430 - Creative Processes in the Elementary School **Credits: (3)**
- MUSC 3824 - Music for Elementary Teachers **Credits: (4)**
- THEA 4603 - Creative Drama **Credits: (3)**

### Required Support Courses (15 credit hours)

**Select 6 credit hours from the following, with at least 3 from Creative Arts (don't duplicate departments):**

#### *Humanities*

- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- MUSC 1043 HU - Music, the Arts & Civilizations **Credits: (3)**

#### *Creative Arts*

- ART 1010 CA - Introduction to the Visual Arts **Credits: (3)**
- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)**
- DANC 1010 CA/DV - Introduction to Dance **Credits: (3)**
- MUSC 1040 CA/DV - Music of World Cultures **Credits: (3)**
- THEA 1033 CA - Introduction to Acting **Credits: (3)**

**Select 3 credit hours from the following to satisfy the science with a lab requirement (may not duplicate departments):**

- GEO 1350 PS - Principles of Earth Science **Credits: (3) OR**
- CHEM 1360 PS - Principles of Physical Science **Credits: (3)** or PHYS PS 1360 **OR**
- BTNY 1370 LS - Principles of Life Science **Credits: (3)** or MICR LS 1370 or ZOO LS 1370

**Select 6 additional credit hours from the following:**

- PHYS 1040 PS - Elementary Astronomy **Credits: (3)**
- MICR 1153 LS - Elementary Public Health **Credits: (3)**
- NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**

#### Required Track-Specific Support Courses (6 credit hours)

##### **Grades K-6 Track**

- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)**
- CHF 2620 - Planning Creative Experiences for Young Children **Credits: (3)**

##### **Grades 1-8 Track**

###### **6 Credits in Specialization Area**

- Mathematics (Elementary Ed endorsement)
- English as a Second Language (ESL)

##### **Special Education Track**

###### **6 Credits in Specialization Area**

- Mathematics
- Reading/Language Arts
- ESL
- Early Childhood
- Family Studies
- English (Secondary Emphasis)

## Elementary Education (BS)

- **Program Prerequisite:** Provisional admission to a Teacher Education Program (see the admission requirements described under the Department of Teacher Education).
- **Minor/Specialization: K-6** Early childhood education (9 credit hours) and another area (9 credit hours); **Grades 1-8** One-subject area specialization (18 credit hours) or a teaching minor (16 credit hours minimum) must be selected.
- **Grade Requirements:** Elementary Education majors must maintain a cumulative GPA of 3.00 or higher in all college/university work and at least a "B-" grade in each professional education course to continue in the program. Elementary Education majors must also achieve at least a "C" grade in MATH 2010, MATH 2015 and MATH 2020.

- **Credit Hour Requirements:** A minimum of 120 credit hours is required for graduation; a minimum of 46 of these is required within the Elementary Education major. A total of 40 upper division credit hours is required (courses number 3000 and above).

## Admission Requirements

Declare a program of study (see Program of Study (Major/Minor) Declaration). Follow the provisional admission requirements outlined under the Teacher Education department.

## Advisement

All Elementary Education majors should meet with an advisor in the Teacher Education Advisement Center and from the Department of Teacher Education. Call 801-626-6309 for more information or to schedule an appointment.

For Elementary Education majors, there are 4 areas of course work that are required: I. University and General Education Requirements; II. Support Courses; III. Subject Area Specialization; and IV. Professional Education Courses. Details for each of these required areas follow.

## General Education

### I. University and General Education Requirements

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Elementary Education major will also satisfy general education requirements: COMM 1020 or COMM 2110, GEOG SS/DV 1300 OR GEOG SS/DV 1520, MATH QL 2020 and CHF 1500. Meeting the general education science requirements may not meet elementary education science requirements. Following the suggested guidelines below will assure that both University general education and Elementary Education requirements are met.

Students pursuing a BS degree must take 9 credit hours, at least one (1) course from a life science group and at least one (1) course from a physical science group. One of the courses must be PS1350 (Principles of Earth Science), PS1360 (Principles of Physical Science), or LS1370 (Principles of Life Science), or at least one science lab course.

## Major Course Requirements for BS Degree resulting in a K-6 License

### II. Support Courses Required (or equivalent) (27-29 credit hours)

- CHF 1500 SS/DV - Human Development **Credits: (3)**
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- EDUC 1010 - Exploring Teaching **Credits: (3)**
- EDUC 2010 - Human Exceptionality **Credits: (3)**  
*Note: Elementary Education and Early Childhood Education Double Majors may fulfill this requirement with CHF 3500 (3)*
- ENGL 3300 - Children's Literature **Credits: (3)**
- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)** OR
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**
- MATH 2010 - Arithmetic for Teachers **Credits: (3)** *Grade of C or above required*
- MATH 2015 - Algebra and Functions for Teachers **Credits: (3)** *Grade of C or above required*
- MATH 2020 QL - Mathematics for Elementary Teachers II **Credits: (3)** *Grade of C or above required*

At least one course from the following

- ART 1030 CA - Studio Art for the Non-Art Major **Credits: (3)**
- MUSC 3824 - Music for Elementary Teachers **Credits: (4)**
- EDUC 3430 - Creative Processes in the Elementary School **Credits: (3)**
- DANC 3640 - Teaching Creative Dance in the Elementary School **Credits: (3)**
- THEA 4603 - Creative Drama **Credits: (3)**

### III. Required Area of Specialization (18 credit hours)

#### **Grades K-6 License Track (18 credit hours)**

- CHF 2500 - Development of the Child **Credits: (3)** *Must be completed prior to Level 1*
- CHF 2610 - Guidance Based on Developmental Theory **Credits: (3)** *Must be completed prior to Level 1*
- CHF 3620 - Curriculum Planning for Kindergarten **Credits: (3)** *Taken with Level 1 courses*

Note:

In addition, complete a 9-hour specialization in one of the areas listed below. For further information concerning the courses involved in the areas of specialization, see the Teacher Advisement Center, ED230.

1. Art
2. Early Childhood
3. Educational Computing
4. English as a Second Language (ESL)
5. Fine Arts
6. Foreign Language
7. General Science
8. Mathematics
9. Multicultural Education
10. Music
11. Physical Education
12. Reading/Language Arts
13. Social Science
14. Special Education (Mild/Moderate)

#### **Grades 1-8 License Track (18 credit hours or approved teaching minor)**

Complete a minimum of an 18-hour area of specialization in one of the areas listed below, or a teaching minor. (See the Secondary Education section for teaching minors.) For further information concerning the courses involved in the areas of specialization, see the Teacher Advisement Center, ED230.

1. English as a Second Language (ESL)
2. Mathematics

*The Professional Education component of the Elementary Education major requires four semesters to complete. Therefore, it is very important that candidates have completed the General Education requirements and have taken at least some of the required Support Courses prior to entering the program. Because of possible scheduling difficulties, failure to do so could mean spending an extra semester (or more) in completing the program.*

### IV. Professional Education Courses Required (56 credit hours)

*Admission to teacher education is required prior to enrollment in Professional Education courses. The Level course changes will begin Fall 2018 and will show up in Cattracks for the 2018-2019 catalog year.*

Level 1 (13 credit hours)

*Note: K-6 Track must take CHF 3620 during this level (credit hours shown under Required Area of Specialization, Level 1 for K-6 Track is 15 credit hours)*

- EDUC 3116 - Media Integration in Elementary Education Settings 1 **Credits: (1)**
- EDUC 3120 - Reading Instruction in the Primary Grades **Credits: (3)**
- EDUC 3140 - Educational Psychology, Interpersonal Skills and Classroom Management **Credits: (3)**
- EDUC 3205 - Culturally and Linguistically Responsive Teaching **Credits: (3)**
- EDUC 3270 - Differentiation and Collaboration for Inclusive Teaching **Credits: (3)**
- CHF 3620 - Curriculum Planning for Kindergarten **Credits: (3)**

Level 2 (14 credit hours)

- EDUC 3100 - Instructional Planning & Assessment **Credits: (3)**
- EDUC 3117 - Media Integration in Elementary Education Settings 2 **Credits: (1)**
- EDUC 3210 - Elementary Level II Practicum **Credits: (2)**
- EDUC 3230 - Data Analysis for Elementary Teachers and Math Pedagogy **Credits: (2)**
- EDUC 3240 - Reading Instruction in the Intermediate Grades **Credits: (3)**
- EDUC 4345 - Elementary Integrated Arts Methods **Credits: (3)**

Level 3 (17 credit hours)

- EDUC 3280 - Elementary Social Studies Methods **Credits: (3)**
- EDUC 4210 - Elementary Level III Practicum **Credits: (3)**
- EDUC 4320 - Elementary Language Arts Methods **Credits: (3)**
- EDUC 4330 - Elementary Science Methods **Credits: (3)**
- EDUC 4350 - Elementary Mathematics Pedagogy **Credits: (2)**
- PEP 3620 - Methods of Teaching Physical Education and Health for Elementary Teachers **Credits: (3)**

Level 4 (12 credit hours)

- EDUC 4840 - Student Teaching in Elementary Education **Credits: (8)** [K-2 and 3-6]
- EDUC 4850 - Integrated Elementary Education Student Teaching Seminar and Synthesis **Credits: (4)**

## Special Education (BS)

- **Program Prerequisite:** Provisional admission to a Teacher Education Program (see the admission requirements described under the Teacher Education Department).
- **Specialization:** Required (9 or more credit hours). Students may choose any academic teaching minor (refer to department listings for specific requirements). Or, choose a specialization area (see below).
- **Grade Requirements:** A "B-" or higher is required for any upper division EDUC or MED course, in addition, Special Education majors must maintain a cumulative GPA of 3.00 or higher in all college/university work.
- **Credit Hour Requirements:** A minimum of 120 credit hours is required for graduation. The following are required within the program: Support Courses 21; Specialization 9; Professional Education 12; Special Education 43. A total of 40 upper division credit hours is required (courses number 3000 and above).

## Admission Requirements

Declare a program of study (see Program of Study (Major/Minor) Declaration). Follow the provisional admission requirements outlined under the Teacher Education department. Also refer to the Department Advisor Referral List.)

## Advisement

All Special Education majors should meet with an advisor in the Teacher Education Advisement Center and with an assigned advisor from the Special Education faculty. Call 801-626-6309 for more information or to schedule an appointment.

For Special Education majors, there are 4 areas of course work that are required: I. University and General Education Requirements; II. Support Courses; III. Area of Specialization; and, IV. Professional Courses. Details for each of these required areas follow.

## General Education

### I. University and General Education Requirements

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Special Education major will also satisfy general education requirements: COMM 1020 or COMM 2110, MATH QL 2020, and CHF SS/DV 1500.

Students pursuing a BS degree must take 9 credit hours, at least one (1) course from a life science group and at least one (1) course from a physical science group. One of the courses must be GEO PS 1350 (Principles of Earth Science), CHEM 1360 PS/PHYS PS 1360 (Principles of Physical Science), or BTNY LS 1370 /MICR LS 1370/ZOOL LS 1370 (Principles of Life Science), or at least one science lab course.

## Major Course Requirements for BS Degree

### II. Support Courses Required (or equivalent) (21 credits)

- EDUC 1010 - Exploring Teaching **Credits: (3)**
- EDUC 2010 - Human Exceptionality **Credits: (3)**
- CHF 1500 SS/DV - Human Development **Credits: (3)**
  
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
  
- MATH 2010 - Arithmetic for Teachers **Credits: (3)** *Grade of C or above required*
- MATH 2015 - Algebra and Functions for Teachers **Credits: (3)** *Grade of C or above required*
- MATH 2020 QL - Mathematics for Elementary Teachers II **Credits: (3)** *Grade of C or above required*

And at least 6 credit hours from the following

- ENGL 3300 - Children's Literature **Credits: (3)**
- EDUC 3390 - Literacy in the Primary Grades **Credits: (2)**
- EDUC 3430 - Creative Processes in the Elementary School **Credits: (3)**
- EDUC 4250 - Second Language Acquisition: Theories and Implementation **Credits: (3)**
- EDUC 4270 - Literacy Strategies for Teaching English Language Learners **Credits: (3)**
- CHF 2400 SS/DV - Family Relations **Credits: (3)**
- CHF 2500 - Development of the Child **Credits: (3)**

- CHF 3640 - Working with Parents **Credits: (3)**
- PSY 3000 - Child Psychology **Credits: (3)**
- PSY 3140 - Adolescent Psychology **Credits: (3)**
- PEP 3660 - Adapted Physical Education **Credits: (3)**

### III. Area of Specialization options (9 credits)

In addition, complete a 9-hour specialization in one of the areas listed below. For further information concerning the courses involved in the areas of specialization, see the Teacher Advisement Center, ED230.

1. Art
2. Early Childhood
3. Educational Computing
4. English as a Second Language (ESL)
5. Fine Arts
6. Foreign Language
7. General Science
8. Mathematics
9. Multicultural Education
10. Music
11. Physical Education
12. Reading/Language Arts
13. Social Science

### IV. Courses Required for the Major (55 credits)

#### Level 1 - Foundation Education Courses (15 credits)

- EDUC 3120 - Reading Instruction in the Primary Grades **Credits: (3)**
- EDUC 3140 - Educational Psychology, Interpersonal Skills and Classroom Management **Credits: (3)**
- EDUC 3205 - Culturally and Linguistically Responsive Teaching **Credits: (3)**
- EDUC 3270 - Differentiation and Collaboration for Inclusive Teaching **Credits: (3)**
- EDUC 4550 - Instructional Planning and Learning Environments for Special Education Students **Credits: (3)**

#### Level 2 - Integrated Methods (14 credits)

- EDUC 3545 - Universal Positive Behavior Support Strategies for Teachers **Credits: (2)**
- EDUC 3565 - Elementary English Language Arts: Evaluation, Remediation and Supports **Credits: (2)**
- EDUC 3575 - Elementary Mathematics: Evaluation, Remediation and Supports **Credits: (2)**
- EDUC 4521 - Practicum in Special Education **Credits: (2)**
- EDUC 4530 - Principles and Applications of Special Education Assessment **Credits: (3)**
- EDUC 4515 - Special Education Law and Practice **Credits: (3)**

#### Level 3 - Advanced Methods (14 credits)

- EDUC 3370 - Advanced Instructional Technology **Credits: (2)**
- EDUC 4545 - Individualized Behavioral Strategies using Applied Behavior Analysis **Credits: (2)**
- EDUC 4565 - Secondary English Language Arts: Evaluation, Remediation and Supports **Credits: (2)**
- EDUC 4575 - Secondary Mathematics: Evaluation, Remediation and Supports **Credits: (2)**
- EDUC 4580 - Learning Strategies and Transition for Special Education Students **Credits: (3)**
- EDUC 4582 - Special Education Level III Practicum **Credits: (3)**

Student Teaching in Special Education (12 credits)

- EDUC 4680 - Special Education Student Teaching **Credits: (8)**
- EDUC 4686 - Special Education Student Teaching Seminar & Synthesis for Special Education Majors **Credits: (4)**

## ESL (English as a Second Language) Minor

### ESL (English as a Second Language) Minor/Endorsement

This program will meet the requirements for the English as a Second Language (ESL) Endorsement to be added to the Early Childhood, Elementary, or Secondary Education licensure.

These courses taken at the graduate level may also be used as electives for the MEd degree. See the Department of Teacher Education or the Master of Education Office for more details.

- **Grade Requirements:** A GPA of 3.00 or better in courses used toward the minor in addition to an overall GPA of 3.00 or higher.
- **Credit Hour Requirements:** 17 credit hours required.

*Students must satisfy the Teacher Education admission and licensure requirements.*

### Course Requirements for Minor/Endorsement

Required Courses (18 credit hours)

- EDUC 4250 - Second Language Acquisition: Theories and Implementation **Credits: (3)** (MED 6250)
- EDUC 4270 - Literacy Strategies for Teaching English Language Learners **Credits: (3)** (MED 6270)
- EDUC 4740 - Building School Partnerships with ESL/Bilingual Families **Credits: (1)**
- EDUC 5770 - Field Experience in ESL/Bilingual Education **Credits: (2)** \*\*
- ENGL 4410 - Strategies and Methodology of Teaching ESL/Bilingual **Credits: (3)** \* (MENG 6410)
- ENGL 4420 - English Phonology and Syntax for ESL/Bilingual Teachers **Credits: (3)** (MENG 6420)
- ENGL 4450 - ESL/Bilingual Assessment: Theory, Methods, and Practices **Credits: (3)** (MENG 6450)

Note:

*\* FL 4400, Methods of Teaching a Foreign Language, may be substituted for ENGL 4410.*

*\*\* EDUC 5770 needs to be completed with Student Teaching.*

*Endorsement programs are also offered through the graduate program as electives.*

## Teacher Education Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Basic Reading Endorsement

## Level I—Basic Reading Endorsement

These courses will meet the requirement for a Level I Basic Reading Endorsement to be added to the Elementary or Secondary Education licensure. The Teacher Education Department provides the courses required for these two endorsements but does not give the endorsement. It is the teacher's responsibility to submit application to the USOE (<http://www.usoe.k12.ut.us>) for the reading endorsement. The USOE does the endorsing after reviewing the student's application and coursework.

### Course Requirements for Elementary Reading Endorsement

- MED 6360 - Foundations of Literacy **Credits: (3)**
- MED 6320 - Content Area Literacy Instruction **Credits: (3)**
- MED 6330 - Using Children's Literature and Informational Text in the Classroom **Credits: (2)**
- MED 6340 - Reading Assessment and Instructional Interventions **Credits: (3)**
- MED 6350 - Reading Comprehension Instruction **Credits: (3)**
- MED 6352 - Early Literacy Instruction (K-6) **Credits: (2)**
- MENG 6110 - Writing for Teachers **Credits: (3)**

### Course Requirements for Secondary Reading Endorsement

- MED 6360 - Foundations of Literacy **Credits: (3)**
- MED 6320 - Content Area Literacy Instruction **Credits: (3)**
- MED 6340 - Reading Assessment and Instructional Interventions **Credits: (3)**
- MED 6350 - Reading Comprehension Instruction **Credits: (3)**
- MED 6353 - Understanding and Supporting Reading Development (grades 6-12) **Credits: (3)**
- MENG 6110 - Writing for Teachers **Credits: (3)**
- MENG 6210 - Teaching Literature in the Secondary Schools **Credits: (3)**

## Level II—Advanced Reading Endorsement

- MED 6354 - Literacy Leadership and Professional Development **Credits: (2)**
- MED 6355 - Research in Reading **Credits: (3)**
- MED 6356 - Internship in Reading **Credits: (3)**

# Dual Language Immersion Endorsement

This program will meet the requirements for the Dual Language Immersion Endorsement to be added to the Elementary or Secondary Education licensure. Students must also demonstrate language proficiency at the Advanced Mid or higher Level, as determined by the Foreign Language Department.

These courses taken at the graduate level may also be used as electives for the MED degree. See the Department of Teacher Education or the Master of Education Office for more details.

## Course Requirements for Endorsement

### Required Courses (15 credit hours)

*Graduate students should contact the MED director for approved substitutions.*

- EDUC 3375 - Foundations of Dual Immersion or Immersion Education **Credits: (3)** (MED 6375)
- EDUC 4415 - Content-Based Second Language Curriculum, Instruction and Assessment **Credits: (3)** (MED 6415)
- EDUC 4270 - Literacy Strategies for Teaching English Language Learners **Credits: (3)** (MED 6270)
- EDUC 4740 - Building School Partnerships with ESL/Bilingual Families **Credits: (1)**
- FL 4400 - Methods for Teaching Languages **Credits: (3)**
- EDUC 5770 - Field Experience in ESL/Bilingual Education **Credits: (2)** \*

Note:

\* *EDUC 5770 needs to be completed with Student Teaching.*

*Endorsement programs are also offered through the graduate program as electives.*

Note:

It is recommended that candidates for the Dual Language Immersion Endorsement also complete the ESL Endorsement with the following courses:

- EDUC 4250 - Second Language Acquisition: Theories and Implementation **Credits: (3)** (MED 6250)
- ENGL 4420 - English Phonology and Syntax for ESL/Bilingual Teachers **Credits: (3)** (MENG 6420)
- ENGL 4450 - ESL/Bilingual Assessment: Theory, Methods, and Practices **Credits: (3)** (MENG 6450)

## Education of the Gifted Endorsement

These courses may also be used as electives for the MEd Degree. See the Department of Teacher Education or the Master of Education Office for more details.

## Course Requirements for Endorsement

### Required Courses (14 credit hours)

- MED 6420 - Foundations of Education of the Gifted **Credits: (3)**
- MED 6440 - Social and Emotional Needs of the Gifted **Credits: (2)**
- MED 6480 - Differentiated Curriculum for the Gifted **Credits: (3)**
- MED 6490 - Assessment and Evaluation in Education of the Gifted **Credits: (3)**
- MED 6495 - Action Research in Education of the Gifted **Credits: (3)**

Elective (at least 2 credit hours)

*Select one of the following options:*

- MED 6450 - Creativity and Applied Imagination **Credits: (2)**
- MED 6470 - Teaching for Thinking **Credits: (2)**
- Approved graduate credit through professional development course of conference

## Elementary Education Mathematics Endorsement

A candidate desiring to receive Elementary Education Mathematics Endorsement must fill the requirements of the Elementary Education major and complete the following courses.

### Courses Required for Endorsement

Mathematics Courses Required (19 hours)

- MATH 1060 - Trigonometry **Credits: (3)**
- MATH 1210 - Calculus I **Credits: (4)**
- MTHE 3060 - Probability and Statistics from a Teaching Perspective **Credits: (3)**
- MTHE 3070 - Geometry for Elementary Teachers **Credits: (3)**
- MTHE 3080 - Number Theory for Elementary Teachers **Credits: (3)**
- MTHE 4040 - Mathematical Problem Solving for Elementary Teachers **Credits: (3)**

Note:

Elementary education majors desiring an Elementary Mathematics Endorsement should consult with the Mathematics Department Chair early in their program. The student will be assigned an advisor to help design his/her course of study.

## ESL (English as a Second Language) Endorsement

### ESL (English as a Second Language) Minor/Endorsement

This program will meet the requirements for the English as a Second Language (ESL) Endorsement to be added to the Early Childhood, Elementary, or Secondary Education licensure.

These courses taken at the graduate level may also be used as electives for the MEd degree. See the Department of Teacher Education or the Master of Education Office for more details.

- **Grade Requirements:** A GPA of 3.00 or better in courses used toward the minor in addition to an overall GPA of 3.00 or higher.
- **Credit Hour Requirements:** 17 credit hours required.

*Students must satisfy the Teacher Education admission and licensure requirements.*

## Course Requirements for Minor/Endorsement

### Required Courses (18 credit hours)

- EDUC 4250 - Second Language Acquisition: Theories and Implementation **Credits: (3)** (MED 6250)
- EDUC 4270 - Literacy Strategies for Teaching English Language Learners **Credits: (3)** (MED 6270)
- EDUC 4740 - Building School Partnerships with ESL/Bilingual Families **Credits: (1)**
- EDUC 5770 - Field Experience in ESL/Bilingual Education **Credits: (2)** \*\*
- ENGL 4410 - Strategies and Methodology of Teaching ESL/Bilingual **Credits: (3)** \* (MENG 6410)
- ENGL 4420 - English Phonology and Syntax for ESL/Bilingual Teachers **Credits: (3)** (MENG 6420)
- ENGL 4450 - ESL/Bilingual Assessment: Theory, Methods, and Practices **Credits: (3)** (MENG 6450)

Note:

\* FL 4400, *Methods of Teaching a Foreign Language*, may be substituted for ENGL 4410.

\*\* EDUC 5770 needs to be completed with Student Teaching.

Endorsement programs are also offered through the graduate program as electives.

## Secondary Education Licensure

- **Program Prerequisite:** Provisional admission to a Teacher Education Program (see the admission requirements described under the Teacher Education Department). Select an academic teaching major and teaching minor or composite teaching major and teaching minor that WSU offers. In many departments the teaching major and minor are different from the departmental major and minor.
- **Minor:** A teaching minor is recommended and may be required with most teaching majors (please consult your content major advisor). A teaching minor is generally not required with a composite teaching major (refer to specific composite major program requirements).
- **Grade Requirements:** Secondary Education students must meet minimum major course grade requirements and maintain a cumulative GPA of 3.00 or higher in all college work and achieve at least a "B-" grade in each professional education course to continue in the program.
- **Credit Hour Requirements:** A total of 120 semester hours is required for graduation; a minimum of 24 of these is required within the Secondary Licensure program. A total of 40 upper division credit hours is required (courses number 3000 and above).

*The academic teaching major and teaching minor must consist of not less than 30 and 16 semester hours respectively, or a composite major of a minimum of 46 semester hours. The teaching major and teaching minor **must be in subjects taught in Utah public secondary schools**. Either the major or minor must be a subject which Utah secondary schools are required to teach (those marked with asterisks do not satisfy this second requirement – see the list of teaching majors and minors below).*

### Admission Requirements

Declare a program of study (see Enrollment Services and Information). Follow the provisional admission requirements outlined under the Teacher Education Department.

### Advisement

All Secondary Education students should meet with an advisor in the Department of Teacher Education. Call 801-626-6309 for more information or to schedule an appointment. In addition, students should seek advisement from both their teaching major and their teaching minor program areas.

For Secondary Licensure candidates, there are 4 areas of course work that are required: I. University and General Education Requirements; II. Support Courses; III. Teaching Major and Teaching Minors (when required) that WSU offers; and IV. Professional Education Courses. Details for each of these required areas follow.

## General Education

### I. University and General Education Requirements

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses required for the Secondary Education Licensure Program will also satisfy general education requirements: COMM 1020 or COMM 2110 and CHF 1500.

## Course Requirements for Licensure

### II. Support Courses Required (or equivalent)

- EDUC 1010 - Exploring Teaching **Credits: (3)**

One course from the following

- CHF 1500 SS/DV - Human Development **Credits: (3)** or
- PSY 3140 - Adolescent Psychology **Credits: (3)**

One course from the following

- COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

### III. Teaching Majors and Minors

#### Majors and Minors

Chemistry	Communication*
Dance	English
French	Geography
German	History
Mathematics	Physical Education
Physics	Political Science*
Psychology*	Sociology*
Spanish	Theatre Arts

\* *Subjects which Utah secondary schools are not required to teach*

#### Minors Only

Art  
Biology  
Business Education  
Business/Marketing Education  
Computer Science  
Earth Science  
Economics  
ESL (English as a Second Language)

Health Promotion  
Physical Education/Coaching Education Dual Teaching

### **Licensure Programs**

Special Education (Mild/Moderate)

### **Composite Majors**

*In lieu of the major and minor, a candidate may elect a composite teaching major which consists of a minimum of forty-six (46) hours of subjects in closely related fields.*

Art ( <i>minor required</i> )	Biology
Business Education	Earth Science
Music Education	Physical Science
Social Science	

## **IV. Professional Education Courses Required (24 hours)**

Secondary Teacher Education Core

- EDUC 3220 - Foundations of Diversity **Credits: (2)**
- EDUC 3265 - The Exceptional Student **Credits: (2)**
- EDUC 3315 - Media Integration in the Secondary School Setting **Credits: (1)**
- EDUC 3900 - Preparing, Teaching, and Assessing Instruction **Credits: (3)**
- EDUC 3910 - Secondary Education Practicum **Credits: (2)**
- EDUC 3935 - Reading and Writing Across the Secondary Curriculum **Credits: (2)**

Secondary Teacher Education Student Teaching

- EDUC 4940 - Student Teaching in Secondary Education **Credits: (8)**
- EDUC 4950 - Integrated Secondary Student Teaching Seminar **Credits: (4)**

## **Additional Information:**

*Provisional admission to teacher education is required prior to enrollment in 3000 level and above education classes.*

*HIST 4500 is a **required course** for the Social & Behavioral Science Teaching Major/Teaching Minor.*

The Professional Education component of the Secondary Education program requires two semesters to complete. Therefore, it is very important that candidates have completed the General Education requirements and most of the major and minor requirements prior to entering the program. Because of possible scheduling difficulties, failure to do so could mean spending an extra semester (or more) in completing the program.

# Dr. Ezekiel R. Dumke College of Health Professions

## **Dr. Yasmien Simonian, Dean**

The Weber State University Dr. Ezekiel R. Dumke College of Health Professions, in cooperation with affiliated clinical facilities and other departments on the campus, offers an expanding program for the education and training of health care professionals. The programs emphasize an integration of the sciences, discipline-specific skills and knowledge, clinical experiences, and liberal arts which enable the graduate to make a maximum contribution to patient care as a member of the health care team.

All of the health and medical science education programs in the Dumke College of Health Professions share a common core curriculum. Students have the unique opportunity to meet and work together in their semesters of study, learning to apply the biomedical sciences and foster the team concept of health care to patient needs.

**Associate Dean:** Dr. Ken Johnson

**Location:** Marriott Allied Health Bldg., Suite 401

**Telephone Contact:** Aubrey Jenkins Lord 801-626-7117

**Admissions and Advisement:** 801-626-6128

## **Department Chairs**

Dental Hygiene: Ms. Stephanie Bossenberger	801-626-6451
Emergency Healthcare: Dr. William Robertson	801-626-8705
Health Sciences: Mr. Kraig Chugg	801-626-6505
Health Administrative Services: Dr. Pat Shaw	801-626-7242
Medical Laboratory Sciences: Dr. Matthew Nicholaou	801-626-6118
School of Nursing: Dr. Susan Thornock	801-626-6833
Radiologic Sciences: Dr. Robert Walker	801-626-7156
Respiratory Therapy: Dr. Paul Eberle	801-626-7071

*Certifications are offered in Medical Laboratory Assistant, Diagnostic Medical Sonography, Emergency Medical Technician, Nuclear Medicine, Radiation Therapy and Radiologic Sciences (including emphases listed under Advanced Radiography and other Emphases program.)*

## **Master of Health Administration Program**

**Health Administrative Services Department Chair:** Dr. Pat Shaw

**Masters of Health Administration Program Director:** Dr. Darcy Carter

**Enrollment Director:** Lindsay Garr 801-626-6228

**Location:** Marriott Allied Health Building, Rm 301

**Telephone Contact:** Devon Trujillo 801-626-7242

**Web Site:** [weber.edu/mha](http://weber.edu/mha) and [weber.edu/emha](http://weber.edu/emha)

The Master of Health Administration (MHA) program at Weber State University is designed to meet the needs of working healthcare professionals and to prepare them for executive leadership in the healthcare industry. Firmly grounded in the

development of three overarching domains: Personal, Professional, and Applied Skills, the program fosters self-development, critical thinking and life-long learning.

Full-time students can complete the MHA or the eMHA in two academic years. All courses in the campus MHA are offered in a hybrid, face-to-face/online, eight-week format on Tuesday and Thursday evenings at our Davis campus. eMHA students spend 1.5 days on campus each semester with the balance of the coursework completed online. MHA and eMHA courses are taught by an optimum blend of academic professors and working healthcare executives and culminate in a real-time final project resulting in a deliverable of importance and measurable value to one of their local healthcare organizations.

## Master of Health Administration (MHA)

### Minimum Admission Requirements

- A Bachelor's Degree\*
- GPA of 3.0 on a 4.0 scale\*\*
- GMAT or GRE scores\*\*\*
- At least two years of supervisory experience (preferred)
- Practicing physicians may be admitted without the GMAT/GRE or supervisory requirement

*\* Students with degrees other than health administration or business administration may be required to take leveling courses in statistics, economics and accounting. These courses, if required, must be completed prior to enrolling in MHA 6200 and/or MHA 6320.*

*\*\* Applicants below the minimum required GPA may be considered. Please provide an explanation of circumstances regarding your GPA.*

*\*\*\* Significant weight is given to GRE aptitude (verbal and quantitative reasoning) with scores of at least 153 and 144, respectively. The GMAT aptitude score should be at least 500. However, indications of academic ability as expressed by undergraduate grade point average and professional experience will be of greater importance than specific undergraduate background and GRE or GMAT scores. Students considering an additional MBA should take the GMAT.*

*This requirement may be waived for applicants with 5 or more years of healthcare experience. Practicing physicians and others holding a Master's, Law, or Doctoral degree may be admitted without the GMAT/GRE or supervisory requirement.*

### Grade Requirements

To receive a Master of Health Administration degree, the student must complete all courses in the MHA program (including required leveling courses) with a grade of "C" or higher, and maintain an overall program GPA of 2.7 or higher.

### Leveling Courses (if required)

- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)** or equivalent
- HAS 4320 - Health Care Economics and Policy **Credits: (3)** or
- MBA 6040 - Managerial Economics **Credits: (3)**

## Course Requirements for MHA

### Required Courses (39 credit hours)

- MHA 6000 - Health Systems & the Healthcare Economy **Credits: (3)**
- MHA 6100 - Leading & Managing People in Health Care **Credits: (3)**
- MHA 6200 - Health Behavior and Managerial Epidemiology **Credits: (3)**
- MHA 6240 - Human Resources Management in Healthcare **Credits: (3)**
- MHA 6249 - Accounting and Finance Principles for Healthcare Managers **Credits: (3)**
- MHA 6250 - Health Care Finance **Credits: (3)**
- MHA 6300 - Quality Improvement and Risk Management in Health Services Organizations **Credits: (3)**
- MHA 6320 - Health Policy and Economics **Credits: (3)**
- MHA 6350 - Decision Making for Health Care Leaders **Credits: (3)**
- MHA 6400 - Strategic Health Planning and Marketing **Credits: (3)**
- MHA 6440 - Health Ethics and Law **Credits: (3)**
- MHA 6450 - Managing Health Information **Credits: (3)**
- MHA 6500 - Field Work **Credits: (3)**

### MHA Elective Courses

*Select two of the following courses*

- MHA 6140 - Long-term Care Administration **Credits: (3)**
- MHA 6160 - Medical Group Management **Credits: (3)**
- MHA 6180 - Health Care Entrepreneurship **Credits: (3)**
- MHA 6360 - Comparative International Health Systems **Credits: (3)**
- MHA 6370 - Executive Leadership Seminars in Healthcare **Credits: (3)**
- MHA 6830 - Directed Study **Credits: (1-3)** (3 credit hours required)

## Master of Science in Nursing Program

**Chair:** Dr. Susan Thornock

**Director of MSN Executive and Educator Tracks:** Julie Gee, PhD, RN

**Location:** Marriott Allied Health Building, Rm 435

**Director of MSN-NP Nurse Practitioner Track:** Deborah Judd, DPN, APRN, FNP-C

**Location:** Marriott Allied Health Building, Rm 438

**Telephone:** Andrea Slager (801) 626-6137

**Enrollment Director:** (801) 626-7774, prompt 6

The MSN program is designed to prepare the graduate as a nurse executive, a nurse educator, or a nurse practitioner.

Master's education in the administrative and the education concentration equips nurses with knowledge and skills to lead change, promote health, and elevate care in various roles and settings. The concentrations of nursing educator and nurse executive are specifically intended for individuals who want to advance their practice and careers in these areas.

The MSN executive and educator degree consists of 39 credit hours beyond the earned baccalaureate degree. This includes core courses (15 credits) and concentrations of nurse administrator or nurse educator (20 credits per concentration) which includes 4 credits of project hours. The WSU executive and educator graduate nursing programs are completely Online. There are limited face to face experiences for nurse educator and executive students during residency courses.

The MSN concentration of nurse practitioner, prepares students for an advanced practice career in nursing as a community healthcare provider. Nurse Practitioners are educated to diagnose, treat, manage acute and chronic illness, order, perform, and interpret diagnostic tests, prescribe and monitor medications, manage patients holistically, promote health and wellness, and decrease individual and community disease morbidity and mortality in a variety of healthcare contexts.

Students are prepared to complete the national nurse practitioner certification exam and to practice as independent licensed practitioners with an understanding of the nurse practitioner role, scope of practice possibilities and limitations, and interdisciplinary collaborative partnerships to provide safe quality care to clients throughout the lifespan.

The MSN-NP degree consists of 50 credit hours beyond the earned baccalaureate degree. This includes 9 credits of MSN core courses, 14 MSN-NP core courses, and 27 specific nurse practitioner courses inclusive of skill labs, clinical practice, and hybrid lifespan courses. Students are required to complete a scholarly project focused on integrating scholarship into clinical practice. The WSU nurse practitioner program has a combination of Online and hybrid (face to face) coursework. Hybrid student learning experiences include: collaborative community healthcare opportunities and Dumke College of Health Professions' interdisciplinary skill labs.

*Certificate courses may not be concurrently applied towards the WSU MSN degree. The School of Nursing programs are nationally accredited by the Accreditation Commission for Education in Nursing (ACEN) 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia, 30326. [www.acenursing.org](http://www.acenursing.org).*

## Nurse Educator Graduate Certificate

- Program Prerequisite: The Graduate Certificate in Nursing Education is a stand-alone certificate: completion of a MSN degree is a prerequisite to admission to the graduate certificate program.
- Grade Requirements: A minimum grade of "B-" is required in all courses and an overall program GPA of 3.0 or higher.
- The certificate will be awarded upon completion of all required graduate level-courses.
- Program can be completed in two (2) to four (4) semesters based on course availability.
- Students may choose to register for an optional 85 hour supervised residency in the area of focus.
- With the exception of the optional residency, all courses are delivered in a 100% online format.
- Enrollment will be capped at 5 students per track at the discretion of the MSN Program Director.
- Credit Hour Requirements for Nurse Executive Certificate: A minimum of 12 credit hours is required.

*Certificate courses may not be concurrently applied towards the WSU MSN degree.*

*Gainful Employment Disclosure*

### Course Requirements for Graduate Certificate

### Courses Required

- MSN 6170 - Teaching Strategies **Credits: (3)**
- MSN 6520 - Curriculum Development for Nursing Educators **Credits: (3)**
- MSN 6540 - Measurement of Competence and Outcomes in Nursing Education **Credits: (3)**
- MSN 6710 - Advanced Health Assessment for the Nurse Educator **Credits: (2)**
- MSN 6720 - Advanced Pharmacology for the Nurse Educator **Credits: (2)**
- MSN 6730 - Advanced Pathophysiology for the Nurse Educator **Credits: (2)**
- **Optional Student Residency:**
- MSN 6700 - Nurse Educator Residency **Credits: (2)** \*85 hours, 6700 will be 2 credits starting Spring 2019

# Nurse Executive Graduate Certificate

- Program Prerequisite: The Graduate Certificate in Nursing Administration is a stand-alone certificate: completion of a MSN degree is a prerequisite to admission to the graduate certificate program.
- Grade Requirements: A minimum grade of "B-" is required in all courses and an overall program GPA of 3.0 or higher.
- The certificate will be awarded upon completion of all required graduate level-courses.
- Program can be completed in two (2) to four (4) semesters based on course availability.
- Students may choose to register for an optional 85 hour supervised residency in the area of focus.
- With the exception of the optional residency, all courses are delivered in a 100% online format.
- Enrollment will be capped at 5 students per track at the discretion of the MSN Program Director.
- Credit Hour Requirements for Nurse Executive Certificate: A minimum of 12 credit hours is required.

*Certificate courses may not be concurrently applied towards the WSU MSN degree.*

*Gainful Employment Disclosure*

## Course Requirements for Graduate Certificate

### Courses Required

- MSN 6300 - Quality Improvement, Patient Safety and Risk Issues in Patient Care Delivery **Credits: (3)**
  - MSN 6324 - Financial Issues in Nursing Administration **Credits: (3)**
  - MHA 6000 - Health Systems & the Healthcare Economy **Credits: (3)**
  - MHA 6100 - Leading & Managing People in Health Care **Credits: (3)**
- Optional Student Residency:**
- MSN 6400 - Nurse Executive Residency **Credits: (2)** \*85 hours, 6400 will be 2 credits starting Spring 2019

## Master of Science in Nursing (MSN)

The Weber State University Master of Science in Nursing (MSN) program prepares nurse leaders who are capable of shaping and advancing the practice and profession of nursing in a variety of settings.

The MSN Nurse Executive and Nurse Educator Programs are designed for baccalaureate-prepared registered nurses to assume the advanced roles of nurse executive, nurse manager, or nurse educator in healthcare facilities or academic institutions. The MSN Program's delivery method is 100% online coursework and requires 39 credit hours to be completed in four, full-time academic semesters. Students must complete an 85 hour supervised residency during their last semester of study with a master's prepared nurse leader in either the academic or healthcare setting. Upon completion of the program, graduates are prepared for doctoral level education.

MSN Educator and Executive students have the option of enrolling in either the four (4) semester, (16 month) or a four (4) semester, (24 month) program of study. The 24 month program of study does not include a summer semester of coursework. The ability to enroll in either the 16 month year-round or 24 month options will be dependent upon student enrollment following the application cycle each year, and will be determined by the MSN Program Director and School of Nursing Chair.

The MSN Post Master's Certificate Program prepares graduates for certification in nursing administration or nursing education. The Nurse Executive Certificate consists of 14 credit hours. The Nurse Educator Certificate consists of 17 credit hours. Both programs offer an optional 85 hour (2 credits) student residency for students who wish to work with a

master's prepared preceptor at the conclusion of their coursework. The programs can be completed in two to four semesters (full-time or part-time) depending on course availability.

**Grade Requirements:** To earn the MSN degree, candidates must successfully complete all MSN program courses with a grade of "B-" or higher and maintain an overall program GPA of 3.0 or higher.

## Accreditation

The MSN Program is accredited by:

Accreditation Commission for Education in Nursing (ACEN)  
3343 Peachtree Road NE, Suite 850  
Atlanta, GA 30326  
P. 404.975.5000  
F. 404.975.5020  
www.acenursing.org

## Admission Requirements

*Enrollment Director (801) 626-7774, prompt 6*

Criteria for admission to the WSU School of Nursing's Master of Science in Nursing Program can be found on the MSN Program website ([weber.edu/msn](http://weber.edu/msn)). Select the "Applications and Checklists" option. *Admission is competitive; therefore, the listed criteria for admission should be considered as minimum standards.* For more information, please contact the School of Nursing Enrollment Director (801) 626-7774, prompt 6.

Prior to beginning the admissions process applicants must be a current matriculated student at Weber State University or apply for admission to the University.

The MSN Program application requirements may be requested through email to [MSN@weber.edu](mailto:MSN@weber.edu) or by phone (801) 626-7774, option 6. Applications become available online at [weber.edu/msn](http://weber.edu/msn) October 1 with a deadline date of March 1. Pending student enrollment, the MSN coursework begins each fall semester.

A \$60 application fee must be paid at the end of the online application process. Admission applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee.

## Required MSN Core Courses (19 credit hours)

MSN students are required to take foundational, core courses which emphasize research, nursing theory, evidence-based practice, leadership, quality improvements, law, statistics and informatics.

- MSN 6110 - Translating Research and Evidence into Practice **Credits: (3)**
- MSN 6120 - Research and Statistics **Credits: (3)**
- MSN 6130 - Theoretical Foundations of Nursing Practice **Credits: (3)**
- MSN 6180 - Improving Patient Care and Nursing Practice through Information Systems **Credits: (3)**
- MSN 6255 - Leadership and Accountability in Advanced Nursing **Credits: (3)**
- MSN 6801 - Integrating Scholarship into Practice **Credits: (2)**
- MSN 6802 - Integrating Scholarship into Practice **Credits: (1)**
- MSN 6803 - Integrating Scholarship into Practice **Credits: (1)**

## Concentration (Core) Courses Required (20 credit hours)

*Select one of the following concentrations*

## Nurse Educator Concentration (20 credit hours)

- MSN 6170 - Teaching Strategies **Credits: (3)**
- MSN 6520 - Curriculum Development for Nursing Educators **Credits: (3)**
- MSN 6540 - Measurement of Competence and Outcomes in Nursing Education **Credits: (3)**
- MSN 6560 - Socialization in the Role of Nursing Educator **Credits: (3)**
- MSN 6700 - Nurse Educator Residency **Credits: (2)**
- MSN 6710 - Advanced Health Assessment for the Nurse Educator **Credits: (2)**
- MSN 6720 - Advanced Pharmacology for the Nurse Educator **Credits: (2)**
- MSN 6730 - Advanced Pathophysiology for the Nurse Educator **Credits: (2)**

## Nurse Executive Concentration (20 credit hours)

- MSN 6300 - Quality Improvement, Patient Safety and Risk Issues in Patient Care Delivery **Credits: (3)**
- MSN 6324 - Financial Issues in Nursing Administration **Credits: (3)**
- MSN 6360 - Scope and Practice of Nursing Administration **Credits: (3)**
- MSN 6380 - Retaining and Developing a Competent Workforce in Nursing **Credits: (3)**
- MSN 6400 - Nurse Executive Residency **Credits: (2)**
- MHA 6000 - Health Systems & the Healthcare Economy **Credits: (3)**
- MHA 6100 - Leading & Managing People in Health Care **Credits: (3)**

Note:

*Please see Admission Advisors.*

# Master of Science in Nursing-Nurse Practitioner (MSNP)

The Master of Science Nursing Family Nurse Practitioner Program is a 5 semester clinically focused program to prepare Baccalaureate RNs with 2 years or more experience for the role of nurse practitioner.

The hybrid model learning experiences afforded students include: collaborative community healthcare partnerships, arrangement of required nurse practitioner program clinical hours, and collaborative community and College of Health Professions' interdisciplinary healthcare provider skills and procedures labs.

Students are prepared to complete the national nurse practitioner certification exam and to practice as independent licensed practitioners with understanding of the nurse practitioner role, new scope of practice, essentials of healthcare policy, and interdisciplinary collaborative partnerships to provide safe quality care to clients throughout the lifespan.

## Required MSN Core Courses (9 credit hours)

- MSN 6110 - Translating Research and Evidence into Practice **Credits: (3)**
- MSN 6120 - Research and Statistics **Credits: (3)**
- MSN 6180 - Improving Patient Care and Nursing Practice through Information Systems **Credits: (3)**

## **Required MSNP Family Nurse Practitioner Core Courses (14 credit hours)**

- MSNP 6205 - Transitions to Advanced Practice **Credits: (1)**
- MSNP 6210 - Advanced Pathophysiology **Credits: (3)**
- MSNP 6215 - Advanced Pharmacology **Credits: (3)**
- MSNP 6220 - Physical Assessment & Diagnostic Reasoning **Credits: (3)**
- MSNP 6255 - Transition to Advanced Practice II **Credits: (4)**

## **Family Nurse Practitioner Program Courses Required (27 credit hours)**

- MSNP 6225 - Primary Care Skills Practicum I **Credits: (1)**
- MSNP 6230 - Primary Care Skills Practicum II **Credits: (1)**
- MSNP 6235 - Advanced Practice Nursing: Adult **Credits: (3)**
- MSNP 6236 - Advanced Practice Primary Care Clinical I **Credits: (3)**
- MSNP 6240 - Advanced Practice Nursing: Older Adult **Credits: (2)**
- MSNP 6241 - Advanced Practice Primary Care Clinical II **Credits: (1)**
- MSNP 6245 - Advanced Practice Nursing: Newborn - Adolescent **Credits: (3)**
- MSNP 6246 - Advanced Practice Primary Care Clinical III **Credits: (2)**
- MSNP 6250 - Advanced Practice Nursing: Women's Health **Credits: (2)**
- MSNP 6251 - Advanced Practice Primary Care Clinical IV **Credits: (1)**
- MSNP 6260 - Advanced Practice Nursing Clinical Practicum **Credits: (4)**

## **MSN Project (4 credit hours)**

- MSN 6801 - Integrating Scholarship into Practice **Credits: (2)**
- MSN 6802 - Integrating Scholarship into Practice **Credits: (1)**
- MSN 6803 - Integrating Scholarship into Practice **Credits: (1)**

Note:

*Please see Admission Advisors.*

## **Master of Science in Radiologic Sciences Program**

**Department Chair:** Robert Walker, PhD, RT(R)(MR)(CT)(QM), FASRT

**Location:** Marriott Health Building, Room 363

**Telephone Contact:** 801-626-6088

**DCHP Admission Office:** (801) 626-6136

The Master of Science in Radiologic Sciences (MSRS) program allows you to build the program based on your educational and professional interests. Students can focus in areas of advanced practice, education, management, research, interventional cardiology, musculoskeletal sonography, radiology nursing, and interprofessional education (IPE).

# Master of Science in Radiologic Sciences (MSRS)

- **Grade Requirements:** All required courses must be completed with a grade of "B" or higher.
- **Credit Hour Requirements:** A total of 36 credit hours are required.

*The maximum time for completion of the degree, including thesis, will be two years; if the maximum time is exceeded, the student must petition to the program for an extension.*

## Admission Requirements

Admission to the program requires a bachelor's degree, certification and Health Care experience.

Criteria to be considered for acceptance into the program include:

- Undergraduate GPA
- Overall GPA
- Professional experience
- Letters of recommendation

Further, all international students and any applicants educated outside the United States must demonstrate proficiency in English. Those whose native language is not English must submit an official score from the Test of English as a Foreign Language (TOEFL) of 550 (paper-based), or 213 (computer-based). The score may not be more than two years old.

## Student Advisement

A program advisor will be appointed by the department chair from the graduate faculty in the program. All MSRS candidates must consult the program advisor at least once a semester. The Radiological Sciences Department Chair will serve as chair of the advisement committee, which will comprise all MSRS faculty.

Continued program evaluation and improvement, especially in the first three years, will assure a high quality program that meets student needs. Also, student needs and success will be monitored continuously throughout the program.

The Master of Science in Radiologic Sciences (MSRS) program allows you to build the program based on your educational and professional interests. Students can focus in areas of advanced practice, education, management, research, interventional cardiology, musculoskeletal sonography, radiology nursing, and interprofessional education (IPE).

## Course Requirements for MSRS

Core Hours (24 credit hours)

- MSRS 6100 - Research Methods **Credits: (3)** or
- MSN 6110 - Translating Research and Evidence into Practice **Credits: (3)**
  
- MSRS 6120 - Research and Statistics **Credits: (3)** or
- MSN 6120 - Research and Statistics **Credits: (3)**
  
- MSRS 6200 - Health Behavior and Managerial Epidemiology **Credits: (3)** or
- MHA 6200 - Health Behavior and Managerial Epidemiology **Credits: (3)**
  
- MSRS 6450 - Managing Health Information **Credits: (3)** or
- MHA 6450 - Managing Health Information **Credits: (3)**

- MSRS 6140 - Clinical Laboratory Correlation **Credits: (3)**
- MSRS 6493 - Advanced 3D Medical Imaging **Credits: (3)**
- MSRS 6900 - Capstone: Clinical Fellowship & Portfolio **Credits: (3)**
- MSRS 6999 - Master's Thesis in Radiologic Sciences **Credits: (3)** \*

### Elective Courses (Select 12 Credit Hours)

- MSRS 6130 - Functional Hemodynamics **Credits: (3)**
- MSRS 6403 - Evaluation of the Osseous System **Credits: (3)**
- MSRS 6413 - Evaluation of the Chest **Credits: (3)**
- MSRS 6423 - Evaluation of the Abdomen and G I System **Credits: (3)**
- MSRS 6433 - Evaluation of the Genitourinary System **Credits: (3)**
- MSRS 6443 - Clinical Pathways **Credits: (3)**
- MSRS 6453 - Evaluation/CNS and Facial Structures **Credits: (3)**
- MSRS 6463 - Problem Patient Management **Credits: (3)**
- MSRS 6473 - Vascular Non-Invasive Imaging Procedures **Credits: (3)**
- MSRS 6483 - Musculoskeletal Sonography **Credits: (3)**
- MSRS 6863 - Vascular Invasive Imaging Procedures **Credits: (3)**
- MSRS 6860 - Clinical Preceptorship **Credits:**
- MSRS 6861 - Clinical Preceptorship **Credits: (3)**
- MSRS 6862 - Clinical Preceptorship **Credits: (3)**

Note:

*\*The degree candidate must complete 3 hours of thesis work MSRS 6999 - Master's Thesis in Radiologic Sciences (3). The master's thesis will be a complete body of work, either accepted for publication in a peer-reviewed journal in the field or deemed publishable by the student's committee.*

## Master of Science in Respiratory Therapy

**Director:** Paul Eberle, PhD, RRT

**Location:** Marriott Allied Health Building, Rm 309B

**Telephone:** Administrative Assistant; Alisa Kimball (801) 626-7071

**Enrollment Director:** (801) 626-6840

The MSRT program is designed for post-professional career development and to prepare respiratory care practitioners as 1) department or clinical administrators, 2) college-level faculty and/or asthma educators, and 3) clinical researchers employed within a variety of healthcare institutions. Two of five post-professional practice credentials (Certified PFT [CPFT] or Registered PFT [RPFT], Sleep Disorders Specialist [SDS] or Registered Polysomnographic Technologist [RPsgT], Adult Critical Care Specialist [ACCS], Neonatal/Pediatric Specialist [NPS], and Asthma Educator [AE-C]) relative to practitioner expertise are required for completion of the degree. Additionally, specific concentrations/emphasis of practice will prepare students for advanced careers in respiratory care. These concentrations are specifically intended for individuals with clinical experience pursuing advanced career pathways in administration, as college faculty, or as clinical researchers or health care consultants. Master of Science in Respiratory Therapy graduates participate in the health care arena as post-professional leaders with roles as clinical respiratory therapists prepared to provide guidance and administrative leadership to departments and to undergraduates throughout the educational processes associated with providing, managing, coordinating, and consulting in respiratory care.

The MSRT degree consists of 36 credit hours beyond the earned baccalaureate degree. This includes core courses in medical writing, medical pathophysiology, and medical ethics and law (9 credits), and providing a mechanism for two

post-professional practice credentials. Additionally, concentrations chosen by the student in areas of health administration, college-level faculty or asthma educator, or clinical research (9 credits per concentration) are required for emphasis. MSRT students are required to complete 6 credits as a capstone project incorporating research principles learned throughout the curriculum. The MSRT program is developed with "hybrid" educational courses. This means the majority of coursework will be online with a few scheduled classroom experiences dependent on the area of concentration/emphasis chosen.

## Master of Science in Respiratory Therapy (MSRT)

- **Grade Requirements:** To earn the MSRT degree, candidates must complete all program courses with a grade of "B-" or higher and maintain an overall program GPA of 3.0 or above.
- **Credit Hour Requirements:** A total of 36 credit hours are required.

### Admission Requirements

*Enrollment Director (801) 626-6840*

Criteria for admission to the WSU Master of Science in Respiratory Therapy Program can be found on the MSRT Program website ([weber.edu/msrt](http://weber.edu/msrt)). Select the "Applications" option. *Admission is competitive; therefore, the listed criteria for admission should be considered as minimum standards.* For more information, please contact the department Enrollment Director (801) 626-6840.

Admissions to the MSRT program require a completed application form to graduate programs at Weber State University. The applicant should possess a strong academic record, three letters of recommendation from appropriate professional references, and high achievement in the last 60 semester hours or minimum achievement on Miller's Analogy or Graduate Record Examination (GRE). Students who fail to enroll in courses for three consecutive semesters must reapply for admissions to the program. Students have a maximum of five calendar years to complete degree requirements.

The MSRT Program application requirements may be requested through email to [MSRT@weber.edu](mailto:MSRT@weber.edu) or by phone (801) 626-7071. Applications are available online at [weber.edu/msrt](http://weber.edu/msrt) during fall semester on January 1. The deadline for accepting applications is April 1 of each year. Pending student enrollment, the MSRT coursework begins each fall semester. Admission to the program requires a Bachelor's degree (*for optional application track Conditional Acceptance for AS RRT to MSRT degree below*) from a regionally accredited institution of higher education (see the U.S. Department of Education website for a list of recognized regional accreditation agencies) in Respiratory Therapy and a registered respiratory therapy (RRT) credential. Research emphasis will require a basic statistics course (MATH 1040-Intro to Statistics or equivalent) prior to admission.

### Optional Application Track for AS to MSRT

Students who have earned the AS degree from a regionally accredited institution of higher education in Respiratory Therapy and an RRT credential have the option of applying for a conditional acceptance to MSRT program. The structure of this program is intended to reduce the time from admission with an AS degree to graduation with an MSRT degree to as few as 3 years.

Applicants who are given a conditional acceptance to the MSRT program will use the first year of the three year program to complete the required bachelor degree in respiratory therapy requirements as outlined in the catalog. Equivalency credit may be issued to transfer students who completed their associate degree and RRT prior to applying to WSU. At the end of the first year of the program, the student will have met all bachelor of science in respiratory therapy program requirements and the required 120 credits required to earn a bachelor degree, but may not have met the institutional requirement of 30 hours of residency required to earn a bachelor degree from WSU. Therefore, the student will be allowed to matriculate to MSRT courses. These courses will count toward the necessary 30 hours of institutional residency credit. Once the student has completed year two (first year of MSRT courses), the student will have earned sufficient institutional residency credit and will apply for graduation with the BSRT degree. Following year three (second

year of MSRT course), the student will have met the MSRT program requirements and may apply for graduation with a master of science in respiratory therapy degree.

### **Advisement for AS to MSRT**

All students who wish to pursue the conditional acceptance of AS RRT to MSRT application track are required to schedule an appointment with an advisor in the Respiratory Therapy Department prior to application. Once admitted to the program, the student will be required to complete an academic contract specifying major courses, approved electives, and graduation requirements for both the BS and MSRT degrees. All students in the AS to MSRT admission track are held to the program requirements outlined in the catalog for both the BS and MSRT degrees.

### **Acceptance Criteria**

#### **Criteria to be considered for acceptance into the AS RRT to MSRT program include:**

Associate of Science degree from a regionally accredited institution of higher education in Respiratory Therapy and a registered respiratory therapy (RRT) credential is required.

Student must also meet all BS and MSRT admission requirements and acceptance criteria as outlined in the catalog.

#### **Criteria to be considered for acceptance into the program include:**

- Undergraduate GPA
- Minimum GPA of 3.00 on the last 60 semester hours (90 quarter hours) of approved undergraduate/graduate course work or if less than GPA of 3.00 on the last 60 semester hours (90 quarter hours) a minimum score of either 396 on the Miller's Analogies Test (MAT) or 480 each on the Verbal, Quantitative, Analytical portions of the Graduate Record Examination (GRE).
- 3 Letters of recommendation with one from a reference concerning knowledge of graduate success.

#### **Additional requirements for International Students**

All International students and any applicant educated outside the United States must demonstrate proficiency in English and register with the International Office in the Student Services Center. Those whose native language is not English must submit official scores from the Test of English as a Foreign Language (TOEFL) of 570 (paper-based) with a TSE-A of 50, or 83 (computer-based) with a 26 or higher on speaking. The score may not be more than two years old.

### **Application Fee**

Each MSRT application form must be accompanied by a \$60 (U.S.) application fee (\$120 for International applicants).

Each AS RRT to MSRT application form must be accompanied by a \$90 (U.S.) application fee (\$180 for International applicants).

Credit card is the preferred form of payment, but other forms are welcome. Additional instructions for payment are in the online application process. Checks must be made payable to Weber State University. Please make sure your name is clearly written on your check. Your application will not be reviewed without payment.

### **Application Submission**

You are responsible for submitting a complete application. The final online application process will prompt you to submit your completed application. Your application will not be considered complete until you have submitted a complete online application and all necessary items received by the MSRT Department.

## Notification of Admissions Decision

Each application is reviewed in depth by the MSRT Admissions Committee. Decisions are made only after thoughtful weighing of all the evidence provided by each candidate and with careful consideration given to the overall balance of participants sought for the MSRT program. The listed application criteria is considered a minimum requirement. Each applicant is considered on an individual basis and qualifications evaluated in a competitive selection process. Consideration can be made at the discretion of the selection committee for professional work experience. You will be notified in a timely fashion after the MSRT Admissions Committee has considered your application.

Students apply to and will be accepted to the graduate program first through an integrated online application available at <http://www.weber.edu/graduateprograms/RespiratoryTherapy.html>. WSU Admissions requires a \$60 application fee (\$120.00 for International students) for those applying for the MSRT. For those applying for the AS RRT to MSRT, the fee is \$90 (\$180 for International applicants).

## Course Requirements for MSRT Degree

### Required MSRT Core Courses (9 credit hours)

- MSRT 6010 - Medical Writing, Research Methods & Design **Credits: (3)**
- MSRT 6020 - Medical Pathophysiology/Cardiopulmonary Case Reviews **Credits: (3)**
- MHA 6440 - Health Ethics and Law **Credits: (3)**

### Post-Professional Credential Courses (6 credit hours required)

- MSRT 6410 - Certified Pulmonary Function Technologist (CPFT) **Credits: (3)**
- MSRT 6420 - Sleep Disorders Specialty (SDS) **Credits: (3)**
- MSRT 6460 - Neonatal Pediatric Specialty (NPS) **Credits: (3)**
- MSRT 6470 - Adult Critical Care Specialty (ACCS) **Credits: (3)**
- MSRT 6480 - Asthma Educator Specialty Credential (AE-C) **Credits: (3)**

### Concentration/Emphasis Courses Required (9 credit hours)

*Select one of the following concentrations:*

#### Health Administrative Services Concentration

- MHA 6000 - Health Systems & the Healthcare Economy **Credits: (3)**
- MHA 6100 - Leading & Managing People in Health Care **Credits: (3)**
- MHA 6240 - Human Resources Management in Healthcare **Credits: (3)**

#### Education Concentration

- MSRT 6030 - Adult Learning Theory & Simulation Strategies **Credits: (3)**
- MED 6050 - Curriculum Design, Evaluation & Assessment **Credits: (3)**
- MED 6230 - Instructional Technology for Teachers **Credits: (3)**

#### Research Concentration

- MED 6080 - Conducting Educational Research **Credits: (3)**
- MSRT 6130 - Evidence-based Practice **Credits: (3)**
- MSRT 6140 - Applied Research in Respiratory Care **Credits: (3)**

## MSRT Capstone Project (6 credit hours)

- MSRT 6700 - Capstone Project **Credits: (3)**

### Note:

*Electives (6 credit hours) may be fulfilled with additional advanced-practice credential(s) or other concentration/emphasis courses. Additionally, proof of two advanced-practice specialty credentials are required for awarding of MSRT degree.*

*Please see Admissions Advisors.*

## Department of Dental Hygiene

**Department Chair:** Stephanie Bossenberger, RDH, M.S.

**Location:** Allied Health, Room 475

**Telephone Contact:** Kaila Rawlinson 801-626-6130

**Professors:** Stephanie Bossenberger, Frances McConaughy; **Associate Professors:** Susan Alexander, Shelly Costley;

**Assistant Professors:** Joe Hopkin, Shane Perry; **Instructor:** Kimberlee Caldwell

The dental hygienist is a health educator and clinician concerned with the prevention of dental disease. Dental hygienists perform their services in a variety of settings, and are members of the dental team who are licensed to provide services directly to the client. Dental hygienists provide oral health education, remove deposits from around the teeth and gums, expose dental radiographs and deliver other treatments to prevent and manage dental disease.

The dental hygiene curriculum is three years in length. The first year may be completed at any accredited college or university and consists of pre dental hygiene courses. These courses include: chemistry, anatomy, physiology, microbiology, English, public speaking, psychology, sociology and nutrition. This year of pre-dental hygiene courses is followed by two years of specialized study in dental hygiene.

The two year dental hygiene curriculum includes practical experience in the WSU Dental Hygiene Clinic. Students also rotate to off-campus sites for extended clinical experiences.

Students who successfully complete the three-year curriculum are awarded an Associate of Science degree from Weber State. A fourth year leading to a bachelor's degree is optional. To become a licensed dental hygienist, each student must successfully pass a written National Board Exam and a practical regional exam. The Dental Hygiene Program is accredited by the American Dental Association's Commission on Dental Accreditation, a specialized accrediting agency recognized by the Council on Post-secondary Accreditation and the United States Department of Education.

## Dental Hygiene (AS)

- **Program Prerequisite:** Completion of the prerequisite courses listed under the Admission Requirements below.
- **Grade Requirements:** Prerequisite course work must meet a standard of 2.5 GPA. All courses required for the major must be successfully completed with a grade of "C" or better (a "C-" grade is not acceptable).
- **Credit Hour Requirements:** A total of 44 credit hours of dental science course work is required for the Associate degree. Additionally, 35 hours of prerequisites are necessary. Students must also complete nine additional credit hours to meet WSU requirements for the Associate of Science Degree. Total credit hour requirements equal 88 hours.

## Advisement

Prospective students are advised by the advisement counselors in the Dr. Ezekiel R. Dumke College of Health Professions Advisement office. The number of this office is: 1-800-350-7042 (in Utah) out-of-state 1-801-626-6128. The Dr. Ezekiel R. Dumke College of Health Professions Advisement Office will send brochures and applications upon request. Individual counseling appointments can be made for direct assistance. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Students must apply to and be accepted into the program to be admitted into any of the courses offered by and required for a degree in Dental Hygiene. The science and all prerequisite courses are listed below and must be completed with a minimum GPA of 2.5 prior to being admitted into the program. These basic science courses must have been taken within five years of the date of anticipated enrollment in the Dental Hygiene Program.

- ZOO 2100 - Human Anatomy (4)
- ZOO 2200 LS - Human Physiology (4)
- CHEM 1050 PS - Introduction to General, Organic & Biochemistry (5) **OR** CHEM 1110 PS - Elementary Chemistry (5)
- MICR 1113 LS - Introductory Microbiology (3)

*The Biomedical Core (HTHS 1110 and HTHS 1111) may be substituted for the four courses listed above. This core will award 4 credit hours to the General Education requirement of Life and Physical Sciences. Three more credit hours of approved Physical Science are needed to complete this category of the general education requirements.*

## Other prerequisite courses include

- HTHS 2230 - Introductory Pathophysiology (3)
- ENGL 1010 EN - Introductory College Writing (3)
- ENGL 2010 EN - Intermediate College Writing (3)
- PSY 1010 SS - Introductory Psychology (3)
- SOC 1010 SS/DV - Introduction to Sociology (3)
- COMM 1020 HU - Principles of Public Speaking (3)
- NUTR 1020 LS - Science and Application of Human Nutrition (3)
- MATH 1010 - Intermediate Algebra (4)
- Computer Literacy, part D

## Application Process

Applicants to the program must complete a specific Dental Hygiene Program application form to be considered for admission into the dental hygiene program, this application package can be obtained from the Advisement Office in the Dr. Ezekiel R. Dumke College of Health Professions (1-800-350-7042 in Utah). The application package will request that you submit current transcripts and verification of previous health-related work experience. The application deadline for Fall Semester enrollment is January 15 of each year. A \$50.00 application fee must be paid at the time the application is submitted.

## General Education

Refer to Degree Requirements for Associate of Science requirements. The majority of general education requirements for the AS degree are taken as prerequisites to the program. However, students must complete all Associate of Science general education requirements to earn the degree in Dental Hygiene.

# Major Course Requirements for Associate of Science Degree

## Dental Science Courses Required

- DENT 2201 - Concepts of Community Dental Health **Credits: (1)**
- DENT 2205 - Head/Neck and Dental Anatomy **Credits: (2)**
- DENT 2206 - Clinical Dental Hygiene/Radiology **Credits: (4)**
- DENT 2207 - Dental Hygiene I **Credits: (3)**
- DENT 2208 - Radiology **Credits: (2)**
- DENT 2211 - Oral Pathology **Credits: (3)**
- DENT 2215 - Periodontology **Credits: (2)**
- DENT 2216 - Clinical Dental Hygiene II **Credits: (3)**
- DENT 2217 - Dental Hygiene II **Credits: (3)**
- DENT 2219 - Dental Materials **Credits: (1)**
- DENT 2235 - Dental Medicine I **Credits: (2)**
- DENT 2250 - Professional Ethics **Credits: (1)**
- DENT 3301 - Community Dental Health Service Learning Lab **Credits: (1)**
- DENT 3305 - Pain Control **Credits: (3)**
- DENT 3336 - Clinical Dental Hygiene III **Credits: (4)**
- DENT 3337 - Dental Hygiene III **Credits: (3)**
- DENT 3346 - Clinical Dental Hygiene IV **Credits: (4)**
- DENT 3347 - Dental Hygiene IV **Credits: (2)**

## Dental Science Electives

- DENT 2800 - Individual Research **Credits: (1-3)**
- DENT 2830 - Directed Readings, Projects and Research **Credits: (1-3)**
- DENT 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**
- DENT 3130 - Independent Study **Credits: (1-3)**
- DENT 4405 - Dental Hygiene Clinical Teaching Practice **Credits: (4)**
- DENT 4410 - Dental Hygiene Needs of the Geriatric Client **Credits: (2)**
- DENT 4530 - Principles and Application of Evidence - based Dental Hygiene Practice **Credits: (2)**
- DENT 4780 - Baccalaureate Thesis **Credits: (3)**
- DENT 4800 - Individual Research **Credits: (1-3)**
- DENT 4810 - Summer Elective Clinic **Credits: (4)**
- DENT 4830 - Directed Readings, Projects and Research **Credits: (1-3)**
- DENT 4890 - Advanced Community or Clinical Work Experience **Credits: (2)**
- DENT 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- DENT 4990 - Seminar **Credits: (1-2)**

## Dental Hygiene (BS)

- **Program Prerequisite:** Successful completion of an Associate of Science Degree in Dental Hygiene, National Board Examination and a Regional or State Practical Exam. Maintenance of a current dental hygiene license
- **Minor:** Not Required.
- **Grade Requirements:** All courses required for the major must be successfully completed with a grade of "C" or better (a "C-" grade is not acceptable).
- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 88 of these are taken for the AS degree and an additional 7 must be taken to complete the BS in Dental Hygiene degree. A prerequisite to the Baccalaureate Thesis course is an upper division Research and Statistics course (numbered 3000 or above,

minimum of 3 cr hrs). Thirteen more upper division hours are selected by the student from a menu of elective courses. Transcripts of transfer students will be evaluated on an individual basis. Transfer students must also complete the residency requirement (30 credit hours of WSU course work).

### **Advisement**

Bachelor of Science Dental Hygiene majors must complete a contract with the Dental Hygiene Department Chair. (Also refer to the Department Advisor Referral List.)

### **Admission Requirements**

An Advanced Dental Hygiene major application and a program of study contract must be completed with the Dental Hygiene Department Chair prior to beginning any of the advanced courses.

### **General Education**

Refer to Degree Requirements for Bachelor of Science requirements. Any general education requirements not taken as part of the Associate of Science program must be completed in order to graduate with a Bachelor of Science Degree.

## **Major Course Requirements for BS Degree**

*To be taken in addition to the courses required for an Dental Hygiene (AS).*

Dental Science Courses Required (7 credit hours) \*\*

- DENT 4530 - Principles and Application of Evidence - based Dental Hygiene Practice **Credits: (2)**
- DENT 4780 - Baccalaureate Thesis **Credits: (3)** \*
- DENT 4890 - Advanced Community or Clinical Work Experience **Credits: (2)**

Note:

*\* A prerequisite to the Baccalaureate Thesis course is an upper division Research and Statistics course (numbered 3000 or above, minimum of 3 cr hrs).*

*\*\* Each student must also select upper division course work bring the total of upper division hours to 40 credit hours.*

## **Department of Emergency Healthcare**

**Department Chair:** William Robertson

**Location:** Marriott Allied Health Building, Room 409

**Telephone Contact:** Robbyn Dunn 801-626-6521

**Assistant Professor:** William Robertson, MEd, NRP

**Instructors:** George Miller, Christine O'Neil

**Medical Advisor:** Jon Apfelbaum, M.D.

A paramedic is a person who usually renders advanced life support care to persons at the site of an illness or injury or en route to a hospital facility. They function under the direct supervision of an Emergency Physician or Registered Nurse and are certified for such functioning by a state Emergency Medical Services agency.

The institutional certificate and two-year applied science degree program in Paramedic Studies are based on a national curriculum designed to provide an academic background in science, health related fields, and communication using critical thinking and assessment based management. The program prerequisites provide the general requirements and foundation that prepares the student to meet the demands of the paramedic courses.

Satisfactory completion of the prerequisite requirements are required prior to starting the paramedic sequence and include:

1. a "C" or better in ENGL 1010, MATH 0990 , Anatomy and Physiology classes, and Medical Terminology; and
2. an overall GPA of 2.7 or above; and
3. Current state EMT Certification; and
4. a score of 75% or better on the departmental EMT assessment exam on no more than two attempts

The longstanding Utah Bureau of EMS policy requiring one year of EMS experience or Advanced EMT has been relaxed. Eligible students may wish to consider PAR 1005 and PAR 1006 to gain EMS field experience prior to entering the paramedic program.

This program may require more than two years for completion depending upon the timing it takes for an individual to complete the prerequisite requirements.

Weber State contracts with authorized clinical and field agencies to precept students for EMT and paramedic certification. Background criminal investigation and drug testing of students is required prior to starting PAR 2000 in the fall semester.

"The WSU Emergency Healthcare Department's paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)."

The paramedic program will "prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains," with or without exit points at the Emergency Medical Responder, Emergency Medical Technician, and Advanced Intermediate levels.

Acceptance to the paramedic program does not assure eligibility for a state or National Registry certification. Utah or a related state Office of EMS makes the final decisions on the issuance of professional licensure or certification. For students that may have a disability or testing accommodation concerns you must contact the Utah Bureau of EMS or National Registry of EMT's. See [health.utah.gov/ems](http://health.utah.gov/ems) and [nremt.org](http://nremt.org)

## Paramedic Studies (AAS)

- **Program Prerequisite:** Acceptance to the program via application process. See the Admission Requirements listed below.
- **Grade Requirements:** "C" or better in all prerequisite and support courses, with a minimum GPA of 2.7. All courses with the PAR prefix must be passed with a "B-" or better in order for a student to progress through the paramedic program sequence and be awarded an institutional certificate and/or the AAS degree.
- **Credit Hour Requirements:** A total of 60-63 credit hours is required for graduation; 36 of these are required within the program. Three upper division credit hours (HLTH 3400) are required within the program.

### Advisement

Paramedic Studies students must meet with the Dumke College of Health Professions academic advisor prior to application. Call 801-626-6136 for more information or to schedule an appointment.

## Admission Requirements

Students are eligible to apply for admission to the Paramedic Studies program upon completion of the following:

1. Making application to Weber State University
2. Obtaining admissions counseling by a Dumke College of Health Professions advisor
3. Satisfactory completion of the prerequisite requirements
4. Completion of the Paramedic program application form by designated date:
  1. Successful completion of the program EMT written assessment exam with a minimum score of 75% on no more than two attempts
  2. Payment of the \$25 application fee
  3. Entrance testing and application must be completed by May 15th for confirmed fall acceptance. Applications received between May 15 and August 1 will be approved on a "space available basis."
5. Current Utah or appropriate state EMT certification

## General Education

Refer to Degree Requirements for Associate of Applied Science Degree requirements. The following courses required for this program will also fulfill general education requirements: Biomedical core courses (see below), COMM 2110, PSY 1010 and SOC 1020. MATH 1010 and ENGL 2010 are required.

## Major Course Requirements for AAS Degree

### Paramedic Courses Required

*All courses with the PAR prefix must be passed with a "B-" or better in order for a student to progress through the paramedic program sequence and be awarded an institutional certificate and/or AAS degree.*

- PAR 1000 - Emergency Medical Technician **Credits: (4)**
- PAR 1001 - Emergency Medical Technician Lab **Credits: (2)**
- PAR 2000 - Introduction to Paramedic Practice **Credits: (4)**
- PAR 3010 - Cardiac and Medical Emergencies **Credits: (6)**
- PAR 2020 - Traumatic Emergencies **Credits: (3)**
- PAR 2030 - Special Populations in Paramedic Practice **Credits: (3)**
- PAR 2040 - Paramedic Skills and Simulation Lab **Credits: (4)**
- PAR 2100 - Capstone Course in Paramedic Practice **Credits: (4)**
- PAR 2110 - Paramedic Clinical Experience **Credits: (3)**
- PAR 2120 - Paramedic Field Internship **Credits: (9)**

Note:

*For students that may have a disability or testing accommodation concerns you must contact the Utah Bureau of EMS or the National Registry of EMT. See [health.utah.gov/ems](http://health.utah.gov/ems) and [nremt.org](http://nremt.org)*

### Biomedical core courses required (or acceptable equivalent)

- HTHS 1101 - Medical Terminology **Credits: (2)**

Must be taken in sequence

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**

Acceptable Equivalent to completing the anatomy and physiology requirement

- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**

AAS Support Courses Required (15 credit hours)

*All support courses must be passed with a "C" or better.*

- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- PSY 1010 SS - Introductory Psychology **Credits: (3)**
- SOC 1020 SS/DV - Social Problems **Credits: (3)**

## Paramedic Certificate of Completion

- **Program Prerequisite:** Applications for an institutional certificate of completion in Paramedic are open to all students prepared with the following prerequisites. See the Admission Requirements listed in the Paramedic Studies (AAS) program.
- **Grade Requirements:** "C" or better in all prerequisite courses, with a minimum GPA of 2.7. All courses with the PAR prefix must be passed with a "B-" or better in order for a student to progress through the paramedic program sequence and be awarded an institutional certificate and/or the AAS degree.
- **Credit Hour Requirements:** The Institutional Certificate of Completion in Paramedic requires a minimum of 36 core paramedic credits for completion. Dependent upon what method a student completes the required prerequisites, up to an additional 30 credit hours may be required.
- **Gainful Employment Disclosure**

### Admission Requirements

Students are eligible to apply for admission to the Institutional Certificate of Completion in Paramedic program upon completion of the following:

1. Making application to Weber State University
2. Obtaining admissions counseling by a Dumke College of Health Professions advisor
3. Satisfactory completion of the prerequisite requirements
4. Completion of the Paramedic program application form by designated date:
  1. Successful completion of the program EMT-B written assessment exam with a minimum score of 75% on no more than two attempts
  2. Payment of the \$25 application fee
  3. Entrance testing and application must be completed by May 15th for confirmed fall acceptance.
  4. Applications received between May 15 and August 1 will be approved on a "space available basis."
5. Current Utah or appropriate state EMT certification

# Courses Required for the Institutional Certificate of Completion in Paramedic

## Prerequisite Courses

- HTHS 1101 - Medical Terminology **Credits: (2)** \*
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** \* and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** \*  
**or**
- ZOOL 2100 - Human Anatomy **Credits: (4)** and
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- ENGL 1010 EN - Introductory College Writing **Credits: (3)** \*
- MATH 0990 ND - First Course in Algebra **Credits: (3)** or equivalent

Note:

*\* These classes can be taken through independent study. Call 801-626-6785.*

## Paramedic Courses Required

*All courses with the PAR prefix must be passed with a "B-" or better in order for a student to progress through the paramedic program sequence and be awarded an institutional certificate and/or AAS degree.*

- PAR 1000 - Emergency Medical Technician **Credits: (4)**
- PAR 1001 - Emergency Medical Technician Lab **Credits: (2)**
- PAR 2000 - Introduction to Paramedic Practice **Credits: (4)**
- PAR 3010 - Cardiac and Medical Emergencies **Credits: (6)**
- PAR 2020 - Traumatic Emergencies **Credits: (3)**
- PAR 2030 - Special Populations in Paramedic Practice **Credits: (3)**
- PAR 2040 - Paramedic Skills and Simulation Lab **Credits: (4)**
- PAR 2100 - Capstone Course in Paramedic Practice **Credits: (4)**
- PAR 2110 - Paramedic Clinical Experience **Credits: (3)**
- PAR 2120 - Paramedic Field Internship **Credits: (9)**

Note:

*For students that may have disability or testing accommodation concerns you must contact the Utah Bureau of EMS or the National Registry of EMT. See [health.utah.gov/ems](http://health.utah.gov/ems) and [nremt.org](http://nremt.org)*

## Emergency Healthcare Sciences (BS)

This degree builds on the Institutional Certificate in Paramedic and AAS in Paramedic Studies using additional upper division program (PAR) courses, support and general education courses. A strong core of Health Administration Services (HAS) and Health Information Management (HIM) courses will be utilized to provide a more diverse healthcare background. The degree in Emergency Healthcare Sciences was designed to be broad enough to enhance those working in medical education, QA/QI, supervision, human resources, air medical services, public health and mobile integrated healthcare.

In response to the needs of working fire and EMS, with the exception of five on-campus days for PAR 3110, Critical Care Transport, the entire degree can be completed online. Curriculum maps will provide projected timelines and department recommended, online general education courses.

**Admission Requirements:** Minimum GPA accepted is 2.7. Also required is a current National Registry or State certification or license as a paramedic without restrictions. After formal degree advisement by the Dumke College of Health Professions, an departmental degree application process is initiated.

**Minor:** Not required.

**Grade Requirements:** A minimum grade of "C" or better is required in all program (PAR) courses, general education and support courses.

**Credit Hour Requirements:** A total of 120 credit hours is required for a Bachelor of Science Degree. Of the 120 hours, 40 must be upper division level. The BS in EHS curriculum provides 35 upper division hours with 6 credits coming from the Cardiac and Medical Emergency section in the Institutional Certificate. (Any General Education course may be utilized, however, courses below feature online delivery)

**Advisement:** Contact the Dumke College of Health Professions Advisor (801) 626-6136.

## Prerequisites

The Institutional Certificate in Paramedic and AAS in Paramedic Studies (or equivalent) is needed to progress into the Bachelor's degree program.

- PAR 1000 - Emergency Medical Technician **Credits: (4) \***
- PAR 1001 - Emergency Medical Technician Lab **Credits: (2) \***
- HTHS 1101 - Medical Terminology **Credits: (2) \***
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4) \***
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4) \***
- MATH 0990 ND - First Course in Algebra **Credits: (3) \***
- MATH 1010 - Intermediate Algebra **Credits: (4) \*\***
- MATH 1030 QL - Contemporary Mathematics **Credits: (3) ^**
- ENGL 1010 EN - Introductory College Writing **Credits: (3) \***
- ENGL 2010 EN - Intermediate College Writing **Credits: (3) \*\***
- PAR 2000 - Introduction to Paramedic Practice **Credits: (4) \*, \*\***
- PAR 2040 - Paramedic Skills and Simulation Lab **Credits: (4) \*, \*\***
- PAR 2110 - Paramedic Clinical Experience **Credits: (3) \*, \*\***
- PAR 3010 - Cardiac and Medical Emergencies **Credits: (6) \*, \*\***
- PAR 2020 - Traumatic Emergencies **Credits: (3) \*, \*\***
- PAR 2030 - Special Populations in Paramedic Practice **Credits: (3) \*, \*\***
- PAR 2120 - Paramedic Field Internship **Credits: (9) \*, \*\***
- PAR 2100 - Capstone Course in Paramedic Practice **Credits: (4) \*, \*\***
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- PSY 1010 SS - Introductory Psychology **Credits: (3)**
- SOC 1020 SS/DV - Social Problems **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**  
(Will accept COMM 1020 Public Speaking)

**\* Paramedic Certificate; \*\*AAS Degree; ^QL for BS Degree**

## **Bachelor of Science in Emergency Healthcare Sciences**

*(Courses selected for online delivery)*

- WEB 1701 - Document Creation
- QL 1030/1040/ or 1050 - QL Mathematics
- General Education - AI/PS/CA/SI
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)**
- HAS 3000 - The Health Care System **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3500 - Biomedical Research Support **Credits: (2)**
  
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)** or
- HAS 3230 - Health Communication **Credits: (3)**
  
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)** or
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)** or
- MICR 1153 LS - Elementary Public Health **Credits: (3)**
  
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- PAR 3110 - Critical Care Transport Course **Credits: (6)**
- PAR 3130 - Mobile Integrated Healthcare **Credits: (2)**
- PAR 4110 - Emergency Medical Services Management Topics **Credits: (3)**
- PAR 4120 - Emergency Medical Service Teaching Topics **Credits: (3)**
- PAR 4130 - Capstone Seminar in Emergency Medicine Research **Credits: (3)**

## **Emergency Healthcare Departmental Honors**

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## **Emergency Medical Technician EMT and Advanced Certification**

### **Basic**

Basic life support, patient assessment and treatment modalities comprise this EMT curriculum. US Department of Transportation (DOT) and Utah State Department of Health standards for certification are met. For students 18 years or older, state certification is optional with an additional fee. For students that may have disability or testing accommodation concerns you must contact the Utah Bureau of EMS. See [health.utah.gov/ems](http://health.utah.gov/ems).

Required Course (no prerequisites are required)

- PAR 1000 - Emergency Medical Technician **Credits: (4)** and
- PAR 1001 - Emergency Medical Technician Lab **Credits: (2)**

## Advanced EMT (Formerly EMT-Intermediate)

Utah State Department of Health and Department of Transportation Standards for Advanced EMT certification are utilized to provide advanced life support to the sick and injured.

Required Courses

*The following can be taken in addition to the above courses and are offered at the Davis Area Technology College.*

- PAR 1010 - Emergency Medical Technician - Intermediate Introduction **Credits: (2)**
- PAR 1011 - Emergency Medical Technician - Intermediate Introduction Lab **Credits: (2)**
- PAR 1020 - Emergency Medical Technician - Intermediate **Credits: (2)**
- PAR 1021 - Emergency Medical Technician - Intermediate Lab **Credits: (2)**

# Department of Health Sciences

**Department Chair:** Kraig Chugg

**Location:** Marriott Allied Health Building, Rm 109

**Telephone Contact:** Elizabeth Crawford-Bizzell 801-626-6505

**Professors:** Jim Hutchins; **Associate Professors:** Kathryn Newton, Travis Price; **Assistant Professors:** Kraig Chugg, Marvin Orrock, Brad Winterton

The Associate of Science in Health Sciences (ASHS) prepares students for entrance into a wide variety of health professions programs currently housed in the Dumke College of Health Professions (DCHP) such as: Dental Hygiene, Emergency Care and Rescue, Nursing, Radiologic Sciences, Respiratory Therapy, Medical Laboratory Sciences, Health Information Management and Health Administrative Services. It also serves as a preparatory associate degree for other Weber State University Bachelor of Science majors including: Anthropology, Gerontology, Athletic Training, Athletic Therapy, Health Promotion, Human Performance Management, Recreation, Sales and Service Technology, and the Bachelor of Integrated Studies (BIS).

Students can choose to complete an ASHS degree or a specific ASHS degree track to customize their academic program: Associate of Science in Health Sciences - Dental Hygiene Track, Associate of Science in Health Sciences - Nursing Track, Associate of Science in Health Sciences - Radiologic Sciences Track, Associate of Science in Health Sciences - Medical Laboratory Sciences Track, and the Associate of Science in Health Sciences - Respiratory Therapy Track. The ASHS degree tracks are designed to expose students to a health professions program as well as provide specific training for potential career opportunities.

### Interdisciplinary Minors

The Health Sciences Department participates in the interdisciplinary Neuroscience Minor Program. Students who wish to enroll in this program should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

# Health Sciences (AS)

- **Grade Requirements:** An overall GPA of 2.5 or higher is required. A course grade of "C" or higher is required for all Health Sciences and the health professions (DENT, NRSG, MLS, RADT, and REST) support courses.
- **Credit Hour Requirements:** A total of 60 credit hours is required for graduation.

## Advisement

Students may contact an advisor in the Dr. Ezekiel R. Dumke College of Health Professions Admissions Advisement Office (Marriott Allied Health Building, Room 108, Phone 801-626-6136, Email [healthprofessions@weber.edu](mailto:healthprofessions@weber.edu)) for program information.

## General Education

Refer to Degree Requirements for Associate of Science requirements. The following courses suggested for the AS Degree in Health Sciences will also fulfill general education requirements: CHEM 1110, CHEM 1050, COMM 1020 or COMM 2110, HTHS 1110, MICR 1113, NUTR 1020, PSY 1010, SOC 1010/SOC 1020.

*Consult with Academic Advising or the Dr. Ezekiel R. Dumke College of Health Professions Admissions Advisement office regarding general education guidelines.*

## Major Course Requirements for the Associate of Science in Health Sciences Degree and Degree Tracks

### Health Sciences Core Courses Required (10 credit hours)

- HTHS 1101 - Medical Terminology **Credits: (2)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**  
**or**
- ZOOL 2100 - Human Anatomy **Credits: (4)** and
- ZOOL 2200 LS - Human Physiology **Credits: (4)**  
**or**

### Associate of Science in Health Sciences (13 credits)

WSU General Education Requirements, Health Sciences Core Requirements, and the following support courses:

- HTHS 1103 - Introduction to Health Careers and Care in a Diverse Society **Credits: (3)**
- HTHS 1120 - Case Studies in Health Sciences **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- HTHS 2231 - Introductory Pathophysiology Laboratory **Credits: (1)**
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)** or
- HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**

## Associate of Science in Health Sciences-Dental Hygiene Track (10 credits)

WSU General Education Requirements, Health Sciences Core Requirements, and the following support courses:

- HTHS 1120 - Case Studies in Health Sciences **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- HTHS 2231 - Introductory Pathophysiology Laboratory **Credits: (1)**
  
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)** or
- HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**

## Associate of Science in Health Sciences-Medical Laboratory Sciences (MLS) Track (11 credits)

WSU General Education Requirements, Health Sciences Core Requirements, and the following support courses:

- MLS 1113 - Introduction to Medical Laboratory Practices **Credits: (4)** \*
- MLS 1114 - Principles of Hematology and Hemostasis **Credits: (4)** \*
- HTHS 1120 - Case Studies in Health Sciences **Credits: (3)**  
*\* Online MLS students must have a signed affiliation agreement prior to registering for these courses.*

## Associate of Science in Health Sciences-Nursing Track (10 credits)

WSU General Education Requirements, Health Sciences Core Requirements, and the following support courses:

- HTHS 1120 - Case Studies in Health Sciences **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- HTHS 2231 - Introductory Pathophysiology Laboratory **Credits: (1)**
  
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)** or
- HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**

## Associate of Science in Health Sciences-Respiratory Therapy Track (12 credits)

WSU General Education Requirements, Health Sciences Core Requirements, and the following support courses:

- HTHS 1120 - Case Studies in Health Sciences **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- HTHS 2231 - Introductory Pathophysiology Laboratory **Credits: (1)**
  
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)** or
- HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**
  
- REST 1540 - Survey of Respiratory Therapy **Credits: (1)**
- REST 1560 - Multi-Skilled Health Care Worker **Credits: (1)**

## Associate of Science in Health Sciences-Radiologic Sciences Track (10 credits)

WSU General Education Requirements, Health Sciences Core Requirements, and the following support courses:

- RADT 1022 - Introduction to Radiologic Technology **Credits: (2)**
- RADT 1542 - Radiographic Anatomy and Positioning V **Credits: (2)**

- RADT 1681 - Lab Experience **Credits: (1)**
- RADT 2865 - Clinical Education **Credits: (2)**
- RADT 2921 - Workshop, Conferences and Telecourses **Credits: (1-3)**

Recommended Elective Courses to fulfill AS degree credit-hour requirement (60 credits), if necessary:

- HTHS 1103 - Introduction to Health Careers and Care in a Diverse Society **Credits: (3)**
- HTHS 1108 - Biocalculations for Health Professions **Credits: (5)**
- HTHS 1120 - Case Studies in Health Sciences **Credits: (3)**
  
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)** or
- HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**
  
- HTHS 2830 - Health Sciences Directed Readings **Credits: (1-3)**
- HTHS 2904 - Information Resources in the Health Professions **Credits: (1)**
- HTHS 2990 - Health Sciences Seminar **Credits: (1)**
- NEUR 2050 - Introduction to Neuroscience **Credits: (3)**
  
- PAR 1000 - Emergency Medical Technician **Credits: (4)** and
- PAR 1001 - Emergency Medical Technician Lab **Credits: (2)**
  
- HIM 2250 - Health Care Privacy and Security **Credits: (3)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**
- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- MLS 4410 - Interdisciplinary Health Care Teams **Credits: (3)**

## Department of Health Administrative Services

**Department Chair:** Dr. Pat Shaw

**Location:** Marriott Allied Health Building, Rm 301

**Telephone Contact:** Devon Trujillo 801-626-7242

**Professors:** Kenneth Johnson, Ann Millner, Patricia Shaw, Carla Wiggins; **Assistant Professors:** Macey Buker, Darcy Carter, Heather Merkle, Cory Moss; **Instructors:** Steven Bateman, Brian Cottle, Lindsay Garr, Miland Palmer

The Health Administrative Services Program (HAS) provides an opportunity for health practitioners, students in the health disciplines, and others to prepare themselves for healthcare management, healthcare information, and health promotion roles in both traditional and nontraditional health care settings. In addition, many students use the program to prepare themselves for graduate studies in health administration and other related disciplines. The program is uniquely structured to help practicing health professionals build upon their two year professional degree or credential while at the same time accommodating the more traditional four-year student. The curriculum is organized so that students may tailor their studies in any one of five program options: Health Services Administration, Health Information Management (HIM), Long-Term Care Administration, Public Health, and Health Information Technology. All study emphases lead to a Bachelor's Degree except for Health Information Technology, which leads to an Associate of Applied Science degree, and Healthcare Coding and Classification, which leads to an Institutional Certificate. An Institutional Certificate is also offered in Health Information Management. The HAS program was developed to better prepare health

practitioners and others to take advantage of the challenges and opportunities facing them as members of the nation's health care team.

### **Study Emphases**

- **Health Services Administration:** Designed to provide health care practitioners and others with the skills and competencies to function as supervisors and managers in health care settings. In the changing health care environment, new and challenging demands are placed on health care personnel to expand their conventional roles to include increased administrative responsibilities. The HSA curriculum provides a working foundation in management and interpersonal skills, while at the same time introducing the student to the health care delivery system and its many and varied issues and challenges. Graduates are not only better prepared to assume increased management responsibilities, but to do so with a better understanding of the complex system in which they work. The HAS emphasis is certified by the Association of University Programs in Health Administration.
- **Health Information Management:** This profession focuses on health care data and the management of health care information resources. The profession addresses the nature and structure of health data and the translation of that data into usable forms of information which support the health care of individuals and populations. HIM professionals collect, integrate, and analyze primary and secondary collections of data and manage information resources related to the research, planning, provision, and evaluation of health care services. This emphasis provides students with the knowledge and skills necessary to become self-directed learners who possess critical-thinking skills and problem-solving abilities, communication and interpersonal skills, a commitment to life-long learning, and important ethical values. The program fosters the acquisition of leadership abilities and systems thinking necessary for adapting careers within a changing health care environment. The HIM emphasis is accredited by the Commission on Accreditation for Health Informatics and Information Management Education, making students eligible to write the national certification exam of the AHIMA, the Registered Health Information Administrator.
- **Long-Term Care Administration:** Prepares students to function as administrators in nursing homes and other long-term care facilities. The curriculum is designed to provide students with a foundation in management principles and human relations, introduce them to the long term care field, and give them operational experience in nursing home management. To function as an administrator in long-term care, one must be licensed. For licensure, most states require the completion of a bachelor's degree in health administration or a related area, an extensive administrative internship, and the successful passing of an examination offered by the National Board of Examiners for Nursing Home Administrators. The LTC emphasis is certified by the Association of University Programs in Health Administration.

### **Public Health**

The Bachelor of Science in Public Health will prepare graduates to take entry-level jobs in epidemiology and public health administration and local and state department of health. Graduates will also be prepared to fill positions supporting public health research at academic institutions, pharmaceutical companies, and private research organizations. Additionally, completion of the degree will prepare students to enter a graduate program in Public Health, Biomedical Informatics, or Health Administration.

### **Health Information Technology**

Health Information Technology is a program offered under Health Administrative Services.

Health Information Technicians perform the essential functions of maintaining health data and records in acute, long-term, and ambulatory health care settings. Opportunities also exist in related health care settings, e.g., insurance companies, medical clinics, computer software vendors, and health maintenance organizations. These functions include, but are not limited to, the coding of diseases and operations, maintaining statistics, transcribing medical reports, performing DRG and utilization review procedures, supervising employees.

In addition to classroom and laboratory course work, students participate in a supervised clinical experience in a hospital medical record department or other health information environment.

The Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education.

Successful completion of the Health Information Technology two-year program leads to an associate of applied science degree and the student is then eligible to sit for the national certification exam. Students passing this national examination may use the professional designation Registered Health Information Technician.

### **Healthcare Coding and Classification**

The program develops the ability of students to use the International Classification of Diseases, version 10 (ICD-10-CM), and the International Classification of Diseases, version 10, Procedural Coding System (ICD-10-PCS) of the U.S. Department of Health and Human Services and the Common Procedural Terminology (CPT) of the American Medical Association. The program develops expertise for both outpatient/office practice and acute-care inpatient levels of proficiency. Students will also use and apply both coding schemes in the systems of reimbursement for healthcare services.

## **Health Information Technology (AAS)**

- **Program Prerequisite:** HTHS 1101 - Medical Terminology and HTHS 1110 LS - Integrated Human Anatomy and Physiology I with a grade of "C" or better.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in required courses (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 63 credit hours is required for graduation.

### **Advisement**

After the student has completed all the prerequisites they should meet with a faculty advisor for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### **Admission Requirements**

Each student must complete a program application after successful completion (grade of C or better) of the program prerequisites. Applications will be processed two times each academic year. Application deadlines are February 15th and September 15th each year.

All students admitted to the WSU Health Administrative Services AAS and BS program may be required to comply with a departmental background check and drug screen test prior to internship or other professional practice experience. If the background check reveals a history of convicted criminal actions, or the drug test results are positive for controlled substances, then the students may be dismissed from the program and will not be entitled to any refunds of tuition or other fees. Most Health Care employers have this same requirement as a condition of employment.

### **General Education**

Refer to Degree Requirements for Associate of Applied Science requirements.

## **Major Course Requirements for AAS Degree**

Program Prerequisites (6 credit hours)

- HTHS 1101 - Medical Terminology **Credits: (2)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** or
- ZOOL 2100 - Human Anatomy **Credits: (4)**

## Health Information Courses Required (30 credit hours)

- HIM 2000 - Introduction to Health Information Systems and Settings **Credits: (3)**
- HIM 2250 - Health Care Privacy and Security **Credits: (3)**
- HIM 2300 - Diagnosis Coding **Credits: (3)**
- HIM 2320 - Ambulatory and Physician Office Coding **Credits: (3)**
- HIM 2330 - Classification Systems Topics and Reimbursement Issues **Credits: (2)**
- HIM 2410 - ICD-10-PCS Coding **Credits: (2)**
- HIM 2500 - Healthcare Database Management & Security **Credits: (3)**
- HIM 2861 - (2nd Year) Professional Practice Experiences **Credits: (2)**
- HIM 2862 - (2nd Year) Professional Practice Experiences **Credits: (2)**
- HIM 2863 - Professional Practice Experience in Coding **Credits: (1)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**

## Support Courses Required (17.5-21 credit hours)

- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** or
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
  
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)**
- HAS 3000 - The Health Care System **Credits: (3)**
  
- WEB 1700 - Introduction to Computer Applications **Credits: (3)**  
*or*
- WEB 1701 - Document Creation **Credits: (1)** and
- WEB 1702 - Content, Internet Identity, and Device Management **Credits: (1)** and
- WEB 1703 - Data Manipulation, Visualization, and Presentation **Credits: (1)**  
*or*
- WEB 1501 - Document Creation Competency Exam **Credits: (.5)** and
- WEB 1502 - Content, Internet Identity, and Device Management Competency Exam **Credits: (.5)** and
- WEB 1503 - Data Manipulation, Visualization, and Presentation Competency Exam **Credits: (.5)**
  
- MATH 1030 QL - Contemporary Mathematics **Credits: (3)** or
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)** or
- HTHS 1108 - Biocalculations for Health Professions **Credits: (5)**

## Health Information Management Certificate of Proficiency

- **Program Prerequisite:** Applicants must possess a bachelor's degree from a regionally accredited institution and be accepted into the certificate program.
- **Grade Requirements:** To receive a Health Information Management Certificate of Proficiency the student must complete all courses in the certificate program with a grade of "C" or higher (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** 30 credit hours as specified below (a minimum of 10 semester credit hours must be completed in residence at Weber State University).
- **Gainful Employment Disclosure**

## Program Description

This program focuses on the management of health care data and information resources. The program addresses the nature and structure of health data and the translation of that data into usable forms of information which support the health care of individuals and populations. HIM professionals collect, integrate, and analyze primary and secondary collections of data and manage information resources related to the research, planning, provision, and evaluation of health care services. This certificate provides students that already have a bachelor's degree the ability to build on previous education to develop the skills necessary to be an effective leader in health information management.

## Course Requirements for Certificate of Proficiency

Courses Required (30 credit hours)

- HIM 5000 - Clinical Foundations in HIM **Credits: (3)**
- HIM 5010 - Health Data Management **Credits: (3)**
- HIM 5020 - Diagnosis and Procedure Coding **Credits: (3)**
- HIM 5030 - Clinical Data Management for Quality Care & Revenue Cycle Integrity **Credits: (3)**
- HIM 5040 - Privacy, Security and Confidentiality in Health Care **Credits: (3)**
- HIM 5050 - Health Information Systems & Technology **Credits: (3)**
- HIM 5080 - Health Information Management Issues **Credits: (3)**
- HIM 5090 - HIM Internship **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3750 - Health Care Financial Administration **Credits: (3)**

## Healthcare Coding & Classification Certificate of Proficiency

- **Grade Requirements:** To receive a Healthcare Coding & Classification Certificate of Proficiency the student must complete all courses in the certificate program with a grade of "C" or higher (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** 27 credit hours as specified.
- **Gainful Employment Disclosure**

## Program Description

This program provides training to candidates interested in the application of disease and operation codes to episodes of care in the U.S. healthcare system. There currently is a nationwide shortage of qualified healthcare coders. Qualified coders are needed at all levels of the healthcare system to provide coded clinical data for reimbursement and research purposes.

The program develops the ability of students to use the International Classification of Diseases, version 9 (ICD-9-CM) and version 10 (ICD-10-CM), and the International Classification of Diseases, version 10, Procedural Coding System (ICD-10-PCS) of the U.S. Department of Health and Human Services and the Common Procedural Terminology (CPT) of the American Medical Association. The program develops expertise for both outpatient/office practice and acute-care inpatient levels of proficiency. Students will use and apply both coding schemes in the systems of reimbursement for healthcare services.

Completion of all courses earns the student a Healthcare Coding & Classification Certificate of Proficiency and prepares them to sit for the American Health Information Management Association's Certified Coding Associate (CCA) certification examination.

## Course Requirements for Institutional Certificate

### Program Prerequisites (6 credit hours)

- HTHS 1101 - Medical Terminology **Credits: (2)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** or
- ZOOL 2100 - Human Anatomy **Credits: (4)**

### Courses Required (21 credit hours)

- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** or
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
  
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- HTHS 2240 - Introduction to Pharmacology **Credits: (3)**
- HIM 2300 - Diagnosis Coding **Credits: (3)**
- HIM 2320 - Ambulatory and Physician Office Coding **Credits: (3)**
- HIM 2330 - Classification Systems Topics and Reimbursement Issues **Credits: (2)**
- HIM 2410 - ICD-10-PCS Coding **Credits: (2)**
- HIM 2863 - Professional Practice Experience in Coding **Credits: (1)**

## Health Administrative Services (BS)

- **Program Prerequisite:** Health Services Administration emphasis has a set of course prerequisites which are expected to be completed prior to declaration of cohort for this major. See the list of prerequisites in the course requirements discussed below. An application for this program is required upon completion of general education and prerequisites. A cohort designation for the major will be made upon receipt and processing of the program application. Students will not be allowed to register for classes in the major without designation of this cohort.

All students admitted to the WSU Health Administrative Services AAS and BS programs may be required to comply with a departmental background check and drug screen test prior to internship or other professional practice experience. If the background check reveals a history of convicted criminal actions, or the drug test results are positive for controlled substances, then the students may be dismissed from the program and will not be entitled to any refunds of tuition or other fees. Most Health Care employers have this same requirement as a condition of employment.

- **Minor:** Not required.
- **Grade Requirement:** A grade of "C" or better in courses required for all emphases (a grade of "C-" is not acceptable), in addition to a minimum cumulative GPA of 2.75.
- **Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above). Please see requirements under emphases as discussed below.

## Advisement

Students are encouraged to meet with a faculty advisor annually for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study. In addition, the following steps are required:

1. Schedule an appointment for academic advisement with a member of the Department of Health Administrative Services faculty.
2. Make application to the program and the Dr. Ezekiel R. Dumke College of Health Professions. Applications will be processed two times each academic year. Application deadlines are February 15th and September 15th each year.
3. Overall GPA of 2.75 is required.

## General Education

It is recommended that all general education courses be completed before applying to the HAS program. Refer to Degree Requirements for Bachelor of Science requirements. Some of the courses required by this program may also fulfill general education requirements. Check with a department advisor if you have questions.

## Major Course Requirements for BS Degree

*See department for recommended sequence of major courses.*

### Health Services Administration Emphasis

#### Prerequisite Courses Required

*The following prerequisite courses must be completed with a grade of "C" or higher (a grade of "C-" is not acceptable) prior to enrollment in required courses of the program.*

- HAS 3000 - The Health Care System **Credits: (3)**
- HTHS 1101 - Medical Terminology **Credits: (2)**
  
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**
- **Or**
- ZOOL 2100 - Human Anatomy **Credits: (4)** and
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- **Or**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
  
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
  
- ECON 1010 SS - Economics as a Social Science **Credits: (3)** or
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**
  
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
  
- Quantitative Literacy and Information Literacy (see Weber State University General Education Requirements)

#### Required Courses (44-47 credit hours)

- HAS 3010 - Professionalism in Healthcare **Credits: (3)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 3750 - Health Care Financial Administration **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- HAS 4741 - Senior Seminar Capstone **Credits: (3)**
- HAS 4860 - Practicum/Internship **Credits: (2-6)** (3 or 6 credit hours required)
- HIM 2330 - Classification Systems Topics and Reimbursement Issues **Credits: (2)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**

#### Elective Courses (6 credit hours required)

- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**
- HAS 4160 - Medical Practice Management **Credits: (3)**
- HAS 4410 - Clinical Instructional Design and Evaluation **Credits: (3)**
- HAS 4420 - Clinical Instructional Skills **Credits: (3)**
- HAS 4520 - Long-Term Care Administration **Credits: (2)**
- HAS 4525 - Health Facility Operations **Credits: (1)**
- HAS 4620 - International Health and Health Care **Credits: (3)**
- HAS 4800 - Individual Study **Credits: (1-3)**
- HAS 4850 - Study Abroad **Credits: (1-6)**
- HAS 4990 - Seminar **Credits: (1)**
- HIM 3550 - Health Care Data Analytics **Credits: (3)**
- HIM 3610 - Advanced Principles of Revenue Cycle Management **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**

## Health Information Management Emphasis, Health Administrative Services (BS)

- **Program Prerequisite:** Health Information Management Emphasis requires previous completion of AAS in Health Information Technology or equivalent. See the list of prerequisites in the course requirements discussed below. An application for this program is required upon completion of general education and prerequisites. A cohort designation for the major will be made upon receipt and processing of the program application. Students will not be allowed to register for classes in the major without designation of this cohort. All students admitted to the WSU Health Administrative Services AAS and BS programs may be required to comply with a departmental background check and drug screen test prior to internship or other professional practice experience. If the background check reveals a history of convicted criminal actions, or the drug test results are positive for controlled substances, then the students may be dismissed from the program and will not be entitled to any refunds of tuition or other fees. Most Health Care employers have this same requirement as a condition of employment.

- **Minor:** Not required.
- **Grade Requirement:** A grade of "C" or better in courses required for all emphases (a grade of "C-" is not acceptable), in addition to a minimum cumulative GPA of 2.75.
- **Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above). Please see requirements under emphases as discussed below.

## Advisement

Students are encouraged to meet with a faculty advisor annually for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study. In addition, the following steps are required:

1. Schedule an appointment for academic advisement with a member of the Department of Health Administrative Services faculty.
2. Make application to the program and the Dr. Ezekiel R. Dumke College of Health Professions. Applications will be processed two times each academic year. Application deadlines are February 15th and September 15th each year.
3. Overall GPA of 2.75 is required.

## General Education

It is recommended that all general education courses be completed before applying to the HAS program. Refer to Degree Requirements for Bachelor of Science requirements. Some of the courses required by this program may also fulfill general education requirements. Check with a department advisor if you have questions.

## Major Course Requirements for BS Degree

### Health Information Management Emphasis

**Prerequisite:** *Previous completion of Health Information Technology AAS program or equivalent curriculum.*

Courses Required (32-33 credit hours)

- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3400 - Health Care Networks and Databases **Credits: (3)**
- HIM 3450 - Health Care Systems Analysis and Design **Credits: (3)**
- HIM 3500 - Biomedical Research Support **Credits: (2)**
- HIM 3550 - Health Care Data Analytics **Credits: (3)**
- HIM 4100 - Health Information Services Management **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 3750 - Health Care Financial Administration **Credits: (3)**
- HAS 4860 - Practicum/Internship **Credits: (2-6)** (4 credit hours required) or
- HIM 4990 - Baccalaureate Thesis and Presentation **Credits: (3)**

### Support Courses Required (4 credit hours)

- MIS 2010 - Business Computer Skills **Credits: (1)**
- ACTG 2010 - Survey of Accounting I **Credits: (3)**

### Elective Courses

- HIM 3600 - Advanced Diagnosis and Procedure Coding **Credits: (3)**
- HIM 3610 - Advanced Principles of Revenue Cycle Management **Credits: (3)**
- HIM 3620 - Principles of Clinical Documentation Improvement **Credits: (3)**

## Long-Term Care Administration Emphasis, Health Administrative Services (BS)

- **Program Prerequisite:** Long-Term Care Administration emphasis has a set of course prerequisites which are expected to be completed prior to declaration of cohort for this major. See the list of prerequisites in the course requirements discussed below. An application for this program is required upon completion of general education and prerequisites. A cohort designation for the major will be made upon receipt and processing of the program application. Students will not be allowed to register for classes in the major without designation of this cohort.

All students admitted to the WSU Health Administrative Services AAS and BS programs may be required to comply with a departmental background check and drug screen test prior to internship or other professional practice experience. If the background check reveals a history of convicted criminal actions, or the drug test results are positive for controlled substances, then the students may be dismissed from the program and will not be entitled to any refunds of tuition or other fees. Most Health Care employers have this same requirement as a condition of employment.

- **Minor:** Not required.
- **Grade Requirement:** A grade of "C" or better in courses required for all emphases (a grade of "C-" is not acceptable), in addition to a minimum cumulative GPA of 2.75.
- **Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above). Please see requirements under emphases as discussed below.

### Advisement

Students are encouraged to meet with a faculty advisor annually for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study. In addition, the following steps are required:

1. Schedule an appointment for academic advisement with a member of the Department of Health Administrative Services faculty.
2. Make application to the program and the Dr. Ezekiel R. Dumke College of Health Professions. Applications will be processed two times each academic year. Application deadlines are February 15th and September 15th each year.
3. Overall GPA of 2.75 is required.

## General Education

It is recommended that all general education courses be completed before applying to the HAS program. Refer to Degree Requirements for Bachelor of Science requirements. Some of the courses required by this program may also fulfill general education requirements. Check with a department advisor if you have questions.

## Major Course Requirements for BS Degree

### Long-Term Care Administration Emphasis

#### Prerequisite Courses Required

*The following prerequisite courses must be completed prior to enrollment in required courses of the LTC program.*

- HAS 3000 - The Health Care System **Credits: (3)**
- HTHS 1101 - Medical Terminology **Credits: (2)**
  
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**
- **Or**
- ZOOL 2100 - Human Anatomy **Credits: (4)** and
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- **Or**
- ZOOL 1020 LS - Human Biology **Credits: (3)**
  
- ACTG 2010 - Survey of Accounting I **Credits: (3)**
  
- ECON 1010 SS - Economics as a Social Science **Credits: (3)** or
- ECON 2010 SS - Principles of Microeconomics **Credits: (3)**

#### Core Courses Required (50 credit hours)

- HAS 3010 - Professionalism in Healthcare **Credits: (3)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 3750 - Health Care Financial Administration **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- HAS 4520 - Long-Term Care Administration **Credits: (2)**
- HAS 4525 - Health Facility Operations **Credits: (1)**
- HAS 4741 - Senior Seminar Capstone **Credits: (3)**
- HAS 4860 - Practicum/Internship **Credits: (2-6)** (6 credit hours required)
- HIM 2330 - Classification Systems Topics and Reimbursement Issues **Credits: (2)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**

## Elective Courses (6 credit hours)

- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**
- HAS 4160 - Medical Practice Management **Credits: (3)**
- HAS 4410 - Clinical Instructional Design and Evaluation **Credits: (3)**
- HAS 4420 - Clinical Instructional Skills **Credits: (3)**
- HAS 4620 - International Health and Health Care **Credits: (3)**
- HAS 4800 - Individual Study **Credits: (1-3)**
- HAS 4850 - Study Abroad **Credits: (1-6)**
- HAS 4990 - Seminar **Credits: (1)**
- HIM 3550 - Health Care Data Analytics **Credits: (3)**
- HIM 3610 - Advanced Principles of Revenue Cycle Management **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- GERT 2220 - Introduction to Social Gerontology **Credits: (3)**
- GERT 3000 - Death and Dying **Credits: (3)**
- GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**

## Public Health (BSPH)

**Program Prerequisite:** Completion of general education requirements and prerequisite courses listed below. An application for the program is required upon completion of general education and prerequisites. A cohort designation for the major will be made upon receipt and processing of the program application. Students will not be allowed to register for classes in the major without designation of this cohort.

All students admitted within the WSU Health Administrative Services department may be required to comply with a departmental background check and drug screen test prior to internship or other professional practice experience. If the background check reveals a history of convicted criminal actions, or the drug test results are positive for controlled substances, then the students may be dismissed from the program and will not be entitled to any refunds of tuition or other fees. Most Health Care and Public Health employers have this same requirement as a condition of employment.

**Minor:** Not required.

**Grade Requirement:** A grade of "C" or better in courses required for all emphases (a grade of "C-" is not acceptable), in addition to a minimum cumulative GPA of 2.75.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above). Please see requirements listed below.

### Advisement

Students are encouraged to meet with a faculty advisor annually for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study. In addition, the following steps are required:

1. Schedule an appointment for academic advisement with a member of the Department of Health Administrative Services faculty.
2. Make application to the program and the Dr. Ezekiel R. Dumke College of Health Professions.
3. Overall GPA of 2.75 is required.

## General Education

It is recommended that all general education courses be completed before applying to the BSPH program. Refer to Degree and General Education Requirements for Bachelor of Science requirements. Some of the courses required by this program may also fulfill general education requirements. Check with a department advisor if you have questions.

## Major Course Requirements for BS Degree

### Public Health

#### Prerequisite Courses Required (14 credit hours)

- HLTH 1030 SS - Healthy Lifestyles **Credits: (3)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**
- MICR 1113 LS - Introductory Microbiology **Credits: (3)**

#### Courses Required (55 credit hours)

- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 3700 - Public Health Finance **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
- HAS 4500 - Grant Writing **Credits: (2)**
- HAS 4700 - Public Health Capstone **Credits: (3)**
- HAS 4860 - Practicum/Internship **Credits: (2-6)** (4 credit hours required)
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3210 - Advanced Epidemiology & Population Health **Credits: (3)**
- HIM 3500 - Biomedical Research Support **Credits: (2)**
- HIM 3550 - Health Care Data Analytics **Credits: (3)**
- HTHS 2230 - Introductory Pathophysiology **Credits: (3)**
- MICR 3012 - Microbiology and Global Public Health **Credits: (2)** or
- MICR 3502 - Environmental Health **Credits: (2)**

#### Elective Courses (6 credit hours)

- AT 3600 - Ergonomics for Health and Safety **Credits: (2)**
- HLTH 1110 - Stress Management **Credits: (3)**
- HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)**
- HLTH 2300 - Emergency Response **Credits: (3)**
- HLTH 3160 - Principles of Health Behavior **Credits: (3)**
- HLTH 3500 - Human Sexuality **Credits: (3)**

- HLTH 4250 - Contemporary Health Issues of Adolescents **Credits: (2)**
- HTHS 1101 - Medical Terminology **Credits: (2)**
- HAS 4620 - International Health and Health Care **Credits: (3)**

## Health Administrative Services Minor

- **Grade Requirements:** A grade of “C” or better in courses used toward the minor.
- **Credit Hour Requirements:** Between 16 and 24 credit hours depending on emphasis.

## Course Requirements for Health Services Administration Emphasis

### Required Courses (18 credit hours)

- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**

### Elective Courses (5 credit hours required)

- HAS 3010 - Professionalism in Healthcare **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**
- HAS 3750 - Health Care Financial Administration **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**
- HAS 4620 - International Health and Health Care **Credits: (3)**
- HAS 4740 - Senior Seminar **Credits: (1)**
- HAS 4800 - Individual Study **Credits: (1-3)**
- HAS 4850 - Study Abroad **Credits: (1-6)**
- HAS 4990 - Seminar **Credits: (1)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**
- HIM 3550 - Health Care Data Analytics **Credits: (3)**
- HIM 3610 - Advanced Principles of Revenue Cycle Management **Credits: (3)**

## Health Information Management Emphasis, Health Administrative Services Minor

- **Grade Requirements:** A grade of “C” or better in courses used toward the minor.
- **Credit Hour Requirements:** Between 16 and 24 credit hours depending on emphasis.

### Course Requirements for Health Information Management Emphasis

*Students in this minor must be majoring with a bachelor's degree in Information Systems and Technologies or Computer Science.*

#### Required Courses (16 credit hours)

- HIM 2000 - Introduction to Health Information Systems and Settings **Credits: (3)**
- HIM 2330 - Classification Systems Topics and Reimbursement Issues **Credits: (2)**
- HIM 2500 - Healthcare Database Management & Security **Credits: (3)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3500 - Biomedical Research Support **Credits: (2)**
- HIM 4100 - Health Information Services Management **Credits: (3)**

## Long-Term Care Administration Emphasis, Health Administrative Services Minor

- **Grade Requirements:** A grade of “C” or better in courses used toward the minor.
- **Credit Hour Requirements:** Between 16 and 24 credit hours depending on emphasis.

### Course Requirements for Long-Term Care Administration Emphasis

#### Required Courses (12 credit hours)

- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3020 - Health Care Marketing **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 4520 - Long-Term Care Administration **Credits: (2)**
- HAS 4525 - Health Facility Operations **Credits: (1)**

#### Elective Courses (6 credit hours required)

- HAS 3010 - Professionalism in Healthcare **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 4320 - Health Care Economics and Policy **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**

- HAS 4620 - International Health and Health Care **Credits: (3)**
- HAS 4740 - Senior Seminar **Credits: (1)**
- HAS 4850 - Study Abroad **Credits: (1-6)**
- HAS 4990 - Seminar **Credits: (1)**
- HIM 3000 - Computer Applications in Health Care **Credits: (3)**
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)**
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**
- HIM 3550 - Health Care Data Analytics **Credits: (3)**
- HIM 3610 - Advanced Principles of Revenue Cycle Management **Credits: (3)**
- GERT 2220 - Introduction to Social Gerontology **Credits: (3)**
- GERT 3000 - Death and Dying **Credits: (3)**
- GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**

## Health Administrative Services Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Post-Acute Nursing Administration Certificate

- **Program Prerequisite:** Applicants must possess current license as a Registered Nurse (RN) and an associate degree to be accepted into the certificate program.
- **Grade Requirements:** To receive a Post-Acute Nursing Administration Certificate the student must complete all courses in the certificate program with a grade of "C" or higher (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** 16 credit hours as specified below (a minimum of 10 semester credit hours must be completed in residence at Weber State University).

### Program Description

The Post-Acute Nursing Administration Certificate program is a joint program offered by the Health Administrative Services department and the School of Nursing. This certificate program provides essential management training to registered nurses (RNs) currently working in nursing homes, assisted living facilities, home health and hospice agencies, and other post-acute care settings.

### Course Requirements for Certificate

Courses Required (16 credit hours)

- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**
- HAS 3750 - Health Care Financial Administration **Credits: (3)**
- HAS 4520 - Long-Term Care Administration **Credits: (2)**
- HAS 4800 - Individual Study **Credits: (1-3)**
- NRSG 4500 - Nursing Management and Leadership **Credits: (3)**
- NRSG 4600 - Communication, Collaboration, and Information Management in Healthcare **Credits: (3)**

# Department of Medical Laboratory Sciences

**Department Chair:** Matthew Nicholaou

**Program Director:** Janet Oja

**Online Program Coordinators:** Julie Kakazu, Cindi Kranek, Kandi Tait, Online Academic Advisor; Christy Achter, Practicum Coordinator

**Location:** Marriott Allied Health Building, Rm 208

**Telephone Contact, Department Secretary:** Chris Housley 801-626-6118

**Professor:** Yas Simonian; **Associate Professor:** Janet Oja; **Assistant Professors:** S. Kendal Beazer, Kenton Cummins, Michael Moore, Matthew Nicholaou, Janice Thomas

**Professional Staff:** Kent Criddle, Laboratory Manager

Medical Laboratory Scientists (MLS) and Medical Laboratory Technicians (MLT) - also known as Clinical Laboratory Scientists (CLS) and Clinical Laboratory Technicians (CLT) - perform laboratory tests on patient samples to provide information needed to diagnose or monitor treatment. These professionals do everything from providing cancer-testing results, to predicting the correct antibiotic to prescribe, to typing the correct blood for surgery. Examples of common laboratory tests include tests to detect anemia, diagnose diabetes and strep throat, and provide a transfusion to an accident victim. Doctors rely on laboratory test results to make informed patient diagnoses. Patient history along with physical signs and symptoms are vital, but most diagnoses need confirmation that only laboratory tests can provide. The laboratory professionals provide answers to life-and-death questions every day.

The MLS program follows a ladder approach from the Associates of Applied Science (AAS) degree through a Bachelor of Science (BS) degree. Students interested in applying to the campus associate level MLT program must first meet with an academic advisor and complete prerequisite courses. If accepted into the MLT program, successful completion of two academic semesters leads to an Associates of Applied Science degree, and allows graduates eligibility to national certification (ASCP MLT). Qualified students wishing to continue can apply for acceptance into the MLS BS program, which generally requires two years of study and provides eligibility to national certification (ASCP MT) upon successful completion of all academic requirements.

Students interested in the online MLS AAS Program must be employed, or have the support of, a clinical laboratory. Students will receive the didactic (lecture) portion of each course online, while completing specific laboratory competencies in the clinical laboratory under the supervision of qualified clinical laboratory mentors where they work. Please refer to the employer support information on the MLS Department web site: <http://www.weber.edu/mls> (online DEGREES/PROGRAMS).

## Accreditation

*The Medical Laboratory Sciences Programs are nationally accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS) 5600 N. River Rd. Suite 720, Rosemont, IL 60018-5119. <http://www.naacls.org>.*

## Medical Laboratory Sciences (AAS)

- **Program Prerequisite:** Completion of the support courses listed under the Admission Requirements.
- **Grade Requirements:** A grade of "C+" or better in all MLS courses, and a grade of "C-" or better in all support courses. A "C" is required in HTHS 1110 in order to continue to HTHS 1111.
- **Credit Hour Requirements:** A total of 67-68 credit hours is required for graduation, 33-34 of these are required MLS courses, 22 are required support courses, and 12 are required general education courses.

## Advisement

Students interested in the MLS program are required to meet with a health professions advisor located in the Dumke College of Health Professions Admissions and Advisement Office room 108. After initial advisement, students are

encouraged to meet with a MLS advisor after acceptance into the program. To schedule an advising appointment, contact the advisement office at 801-626-6128. (Also refer to the Department Advisor Referral List.)

## **Admission Requirements**

### **On-campus students:**

1. Applicants must have a minimum cumulative GPA of 3.0 and meet with an advisor.
2. Complete most or all of the MLS support courses by April 1 of the year of application (student may be enrolled in those courses that spring semester). For the list of support courses, see Course Requirements for the AAS Degree.
3. Submit application and a non-refundable \$25 fee to DCHP Admissions Advisement office (Marriott Allied Health Building, room 108) by April 1. Applications are available in the MLS Department office (Marriott Allied Health Building, room 208). For more information, call the MLS secretary at 801-626-6118.
4. Complete a federal background check and drug screen by the end of fall semester after acceptance into the program.
5. Students for whom English is not their native language need to submit documentation of proficiency in English. Please refer to the MLS website at <http://weber.edu/mls/> for more details.

### **Online students:**

1. Applicants must have a minimum cumulative GPA of 2.5.
2. Must be currently employed by an accredited (TJC/CAP/COLA/CLIA) laboratory that can provide a multidisciplinary laboratory experience.
3. Contact the AAS MLS online academic advisor, Christy Achter, at 801-626-6874 or [christyachter@weber.edu](mailto:christyachter@weber.edu) for advising.
4. Have employer read and sign Statement of Support form, available at <http://www.weber.edu/mls/degrees/online/SOS.html>.
5. Apply to WSU for general admissions. Applications are available online at <http://www.weber.edu/admissions>.
6. Send all official transcripts from other institutions to the WSU admissions office.
7. Complete a MLS AAS online application, available at <https://portalapps.weber.edu/gradadmissionsform2/undergraddefault.aspx?program=MLS>. Submit a completed Statement of Support along with the application. A \$95 non-refundable departmental application fee is also required.
8. Complete a federal background check and drug screen, if required by employer.

All supporting documents listed above must be received by application due dates of February 1 for fall semester or September 1 for spring semester.

For more information about the online application requirements and process, go to <http://www.weber.edu/mls/degrees/online/AAS.html>, and contact Christy Achter, at 801-626-6874 or [christyachter@weber.edu](mailto:christyachter@weber.edu) for advising.

## **General Education**

Refer to Degree Requirements for Associate of Applied Science requirements. The following required courses will fulfill both program requirements and general education requirements in the Life and Physical Sciences areas: CHEM 1110, CHEM 1210, HTHS 1110, MICR 1113, MICR 2054, and PHYS 1010. Remaining general education requirements can be fulfilled by taking the required 12 credit hours from each of the following areas:

6 credit hours Composition  
3 credit hours Creative Arts & Humanities  
3 credit hours Social Sciences

*Some requirements may be met by ACT, CLEP, and/or AP scores as designated by the University (contact the Admissions Office for more information).*

## Major Course Requirements for AAS Degree

### MLS Courses Required (33-34 credit hours)

- MLS 1001 - Online Orientation for AAS Degree **Credits: (1)** *Online students only*
- MLS 1113 - Introduction to Medical Laboratory Practices **Credits: (4)**
- MLS 1114 - Principles of Hematology and Hemostasis **Credits: (4)**
- MLS 2210 - Principles of Immunohematology **Credits: (5)**
- MLS 2211 - Principles of Clinical Chemistry I **Credits: (5)**
- MLS 2212 - Principles of Clinical Microbiology I **Credits: (4)**
- MLS 2213 - Principles of Clinical Chemistry II **Credits: (5)**
- MLS 2214 - Principles of Clinical Microbiology II **Credits: (4)**
- MLS 2256 - Supervised Clinical Experience I **Credits: (1)**
- MLS 2257 - Supervised Clinical Experience II **Credits: (1)**

### Support Courses Required (24-31 credit hours)

- CHEM 1110 PS - Elementary Chemistry **Credits: (5)** and
- CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**  
**or**
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**
  
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** \* and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** \*
  
- MATH 1010 - Intermediate Algebra **Credits: (4)** or
- MLS 2003 - Applied Laboratory Mathematics and Laboratory Statistics **Credits: (3)**
  
- MICR 1113 LS - Introductory Microbiology **Credits: (3)** or
- MICR 2054 LS - Principles of Microbiology **Credits: (4)**

Note:

\* *Equivalencies to Biomedical Core (HTHS 1110 and HTHS 1111):*

- ZOO 2200 LS - Human Physiology **(4)** and
- ZOO 2100 - Human Anatomy **(4)**  
*or*
- PHYS 1010 PS - Elementary Physics **(3)**

# Pre-Medical, Pre-Dental, Pre-Vet, and Pre-Professional, Medical Laboratory Sciences

Since the MLS Programs offer a curriculum with a direct application to applied medical science, it offers an attractive alternative approach to traditional pre-professional degree tracks. The AAS and BS Programs have a designated Track II curriculum pattern with specific course integration with required pre-professional courses. See Kendal Beazer, the MLS pre-professional faculty advisor, for more specific information. Call the MLS secretary at 801-626-6118 to schedule an advising appointment.

## Medical Laboratory Sciences (BS)

- **Program Prerequisite:** Completion of MLS AAS Degree requirements. Students transferring from another college or university must have a MLS/MLT AAS Degree and/or CLT/MLT certification.
- **Minor:** A minor is not required, but minors are available in chemistry and microbiology with successful completion of additional courses as specified by the department offering the minor.
- **Grade Requirements:** A grade of "B-" or better in all MLS courses, and a grade of "C-" or better in all support courses.
- **Credit Hour Requirements:** A minimum of 120 credit hours is required for graduation.

### Advisement

All medical laboratory science students are required to meet with a faculty advisor prior to application. Thereafter, advisement each semester is recommended. To schedule an advising appointment, call the MLS secretary at 801-626-6118. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

#### On-campus students:

1. Must have a minimum cumulative GPA of 3.0.
2. Must have completed WSU MLS AAS Program. Transfer students must have a MLS/MLT AAS Degree and/or CLT/MLT certification.
3. Meet with a MLS faculty advisor.
4. Submit application and a non-refundable \$25 fee to DCHP Admissions Advisement office (Marriott Allied Health Building, room 108) by April 1. Applications are available in the MLS office (Marriott Allied Health Building, room 208). For more information, call the MLS secretary at 801-626-6118.
5. Complete a federal background check and drug screen by the end of fall semester after being accepted into the program. If students have completed a background check and drug screen when accepted into the WSU MLS AAS Program, this does not need to be repeated.
6. Students for whom English is not their native language need to submit documentation of proficiency in English. Please refer to the MLS website at <http://weber.edu/mls/> for more details.

#### Online students:

1. Must have a minimum cumulative GPA of 2.5.
2. Must be currently employed by an accredited (TJC/CAP/COLA/CLIA) laboratory that can provide a multidisciplinary laboratory experience.
3. Must have a MLS/MLT AAS Degree and/or CLT/MLT certification. (Note: acceptable certification; MLT(ASCP), MT(AMT), or MT(AAB).)
4. Contact the BS MLS online advisor, Kandi Tait at 801-626-6785 or [kanditait@weber.edu](mailto:kanditait@weber.edu) for advising.
5. Have employer read and sign Statement of Support form, available at <http://www.weber.edu/mls/degrees/online/SOS.html>.
6. Apply to WSU for general admissions. Applications are available online at <http://www.weber.edu/admissions>.

7. Send all official transcripts from other institutions to the WSU admissions office.
8. Complete a MLS BS online application, available at <https://portalapps.weber.edu/gradadmissionsform2/undergraddefault.aspx?program=MLS>. Submit a completed Statement of Support along with the application. A \$95 non-refundable departmental application fee is also required.
9. Complete a federal background check and drug screen, if required by employer.

For more information about the online application requirements and process, go to <http://www.weber.edu/mls/degrees/online/BS.html>, and contact Kandi Tait, at 801-626-6785 or [kanditait@weber.edu](mailto:kanditait@weber.edu).

## General Education Requirements

Refer to Degree Requirements for Bachelor of Science requirements. The following required courses will fulfill both program requirements and general education requirements in the Life and Physical Sciences areas: CHEM 1110, CHEM 1210, HTHS 1110, MICR 1113, MICR 2054, PHYS 1010. Remaining general education requirements can be fulfilled by taking the required credit hours in the following areas:

- 6 credit hours Composition
- 3 credit hours Quantitative Literacy
- 3 credit hours American Institutions
- 9 credit hours Creative Arts & Humanities
- 2-4 credit hours Computer Literacy
- 6 credit hours Social Sciences
- 3 credit hours Diversity

*Some requirements may be met by ACT, CLEP, and/or AP scores as designated by the University (contact the Admissions Office for more information).*

## Major Course Requirements for BS Degree

- MLS 3301 - Online Orientation for BS Degree **Credits: (2)**

### Core Medical Lab Courses Required (33 credit hours)

- MLS 1113 - Introduction to Medical Laboratory Practices **Credits: (4)**
- MLS 1114 - Principles of Hematology and Hemostasis **Credits: (4)**
- MLS 2210 - Principles of Immunohematology **Credits: (5)**
- MLS 2211 - Principles of Clinical Chemistry I **Credits: (5)**
- MLS 2212 - Principles of Clinical Microbiology I **Credits: (4)**
- MLS 2213 - Principles of Clinical Chemistry II **Credits: (5)**
- MLS 2214 - Principles of Clinical Microbiology II **Credits: (4)**
- MLS 2256 - Supervised Clinical Experience I **Credits: (1)**
- MLS 2257 - Supervised Clinical Experience II **Credits: (1)**

Note:

*Transfer students must have completed a MLS/MLT program and be MLT certified to enter the BS program.*

## Courses Required for Junior and Senior Curriculum

Select one of the following tracks:

Track I (Laboratory professional)

*Online students only*

- MLS 3302 - Biostatistics, Research Methods, and Laboratory Practices **Credits: (4)**
- MLS 3310 - Advanced Immunohematology **Credits: (4)**
- MLS 3312 - Clinical Laboratory Immunology and Virology **Credits: (4)**
- MLS 3313 - Advanced Hematology and Hemostasis **Credits: (4)**
- MLS 3314 - Advanced Clinical Chemistry **Credits: (3)**
- MLS 3316 - Advanced Clinical Microbiology and Molecular Diagnostics **Credits: (4)**
- MLS 4411 - MLS Simulated Laboratory I **Credits: (4)**
- MLS 4412 - MLS Simulated Laboratory II **Credits: (4)**
- MLS 4415 - Laboratory Teaching and Supervision I **Credits: (3)**
- MLS 4453 - Supervised Clinical Experience I **Credits: (1)**
- MLS 4454 - Supervised Clinical Experience II **Credits: (1)**
  
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** \* and
- CHEM 1220 - Principles of Chemistry II **Credits: (5)** \*
- CHEM 2310 - Organic Chemistry I **Credits: (4)** \* and
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** \*
- or**
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)** \* and
- CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)** \*
  
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** or
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
  
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)** or
- ZOOL 2100 - Human Anatomy **Credits: (4)** or
- PHYS 1010 PS - Elementary Physics **Credits: (3)**
  
- MICR 2054 LS - Principles of Microbiology **Credits: (4)** or
- MICR 1113 LS - Introductory Microbiology **Credits: (3)**
  
- MICR 3305 - Medical Microbiology **Credits: (5)** or
- MICR 3603 - Advanced Microbiology for the Health Professions **Credits: (3)** or
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)** or
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
  
- MLS 3301 - Online Orientation for BS Degree **Credits: (2)**  
*Online Students Only*

Note:

\* Students seeking a BS degree are required to complete a minimum of two semesters of Chemistry to include an Organic or Biochemistry course.

Electives: (4 credit hours required)

- MLS 4409 - Clinical Correlation **Credits: (1)** and
- MLS 4410 - Interdisciplinary Health Care Teams **Credits: (3)**  
**or**
- MLS 4803 - Research Projects in Medical Laboratory Sciences I **Credits: (2)** and
- MLS 4804 - Research Projects in Medical Laboratory Sciences II **Credits: (2)**

Track II (Pre-professional)

- MLS 3302 - Biostatistics, Research Methods, and Laboratory Practices **Credits: (4)**
- MLS 3310 - Advanced Immunohematology **Credits: (4)**
- MLS 3313 - Advanced Hematology and Hemostasis **Credits: (4)**
- MLS 3314 - Advanced Clinical Chemistry **Credits: (3)**
- MLS 3316 - Advanced Clinical Microbiology and Molecular Diagnostics **Credits: (4)**
- MLS 4453 - Supervised Clinical Experience I **Credits: (1)**
- MLS 4454 - Supervised Clinical Experience II **Credits: (1)**
- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**
- CHEM 2310 - Organic Chemistry I **Credits: (4)** and
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**
  
- CHEM 2320 - Organic Chemistry II **Credits: (4)** and
- CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**  
**or**
- CHEM 3070 - Biochemistry I **Credits: (3)**
  
- MICR 2054 LS - Principles of Microbiology **Credits: (4)** or
- MICR 1113 LS - Introductory Microbiology **Credits: (3)**
  
- MICR 3254 - Immunology **Credits: (4)** or
- MICR 3203 - The Immune System in Health & Disease **Credits: (3)**
  
- MICR 3305 - Medical Microbiology **Credits: (5)** or
- MICR 3603 - Advanced Microbiology for the Health Professions **Credits: (3)** or
- HIM 3200 - Epidemiology and Biostatistics **Credits: (3)** or
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**
  
- PHYS 2010 PS - College Physics I **Credits: (5)**
- PHYS 2020 - College Physics II **Credits: (5)**
- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- ZOOL 3300 - Genetics **Credits: (4)**

Electives: (4 credit hours required)

- MLS 4409 - Clinical Correlation **Credits: (1)** and
- MLS 4410 - Interdisciplinary Health Care Teams **Credits: (3)**  
**or**
- MLS 4803 - Research Projects in Medical Laboratory Sciences I **Credits: (2)** and
- MLS 4804 - Research Projects in Medical Laboratory Sciences II **Credits: (2)**

Note:

*Equivalencies to Biomedical Core (HTHS 1110 and HTHS 1111)*

- *ZOOL 2200 LS - Human Physiology (4)*  
*and*
- *ZOOL 2100 - Human Anatomy (4) or*
- *PHYS 1010 PS - Elementary Physics (3)*

## **Medical Laboratory Sciences Departmental Honors**

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## **Medical Laboratory Sciences Clinical Laboratory Assistant (CLA) Certificate of Completion**

The Clinical Laboratory Assistant (CLA) certificate of completion is designed to teach core clinical laboratory skills to individuals from various health care professions. The curriculum will focus on basic laboratory methods in quality control, quality assurance, information recording and transfer, normal and abnormal laboratory values, and problem recognition. Students will receive basic technical instruction in laboratory safety, microscopy, phlebotomy, specimen collection and processing, and laboratory instrumentation in the areas of hematology, serology, urinalysis, clinical chemistry, and microbiology. Upon successful completion of the course, students will receive a Certificate of Completion from the Dumke College of Health Profession's Clinical Laboratory Assistant (CLA) program and are designated as CLA level assistant IV by local industry.

For campus students, the CLA certificate is granted after successful completion of MLS 1113, Intro to Medical Laboratory Practices.

Online students must complete MLS 1010, Core Clinical Laboratory Skills, and have the support of a clinical laboratory to fulfill the laboratory requirement. The laboratory component will address applications with a focus on point-of-care-testing (POCT). Students will be required to spend a minimum of 64 unpaid hours during the semester working on laboratory competency. If students wish to continue to further their education, MLS 1113 will be waived upon enrollment into the MLS AAS Program at WSU. Contact the AAS/MLT online academic advisor, Christy Achter, at 801-626-6874 or [christyachter@weber.edu](mailto:christyachter@weber.edu) for advising.

# School of Nursing

**Chair:** Susan Thornock, EdD, MS, RN

**Location:** Marriott Allied Health Building, Rm 437

**Telephone Contact:** Aiko Flowers (801) 626-6134

**MSN Director:** Julie Gee, PhD, MS, RN (801) 626-7564

**Location:** Marriott Allied Health Building, Rm 435

**MSNP Director:** Deborah Judd, DNP, APRN, FNP-C (801) 626-7862

**Location:** Marriott Allied Health Building, Rm 438

**Program Secretary:** Andrea Slager (801) 626-7833

**RN to BSN Director:** Amy Stegen, MSN, RN

**Program Secretary:** Tiffany Bennett (801) 626-6122

**Statewide Associate Degree Director:** Sally Cantwell, PhD, RN

**Telephone Contact:** Marguerite Simmons (801) 626-7452

**Enrollment Director:** Robert Holt, MS

**Telephone Contact:** (801) 626-7774, prompt 6

**Nursing Simulation Lab Coordinator:** Kristine Bouwhuis, BS, RRT, NPS

**Telephone Contact:** (801) 626-6646

**Davis Campus Nursing Lab:**

**Telephone Contact:** (801) 395-3483

**WSU/B Tech Contractual Program** (Logan, Utah)

**Campus Facilitator:** Lisa Moon, MSN, RN

**Program Contact:** Jake Angell (435) 750-3140

**WSU/Davis Tech Contractual Program** (Kaysville, Utah)

**Campus Facilitator:** Leslie Mock, MSN, RN

**Program Contact:** Renee Magnusson (801) 593-2341

**WSU/O Tech Contractual Program** (Ogden, Utah)

**Campus Facilitator:** Mary Lou Morales, MSN, RN

**Program Contact:** Robie Hicken (801) 627-8351

FACULTY - **Professors:** Valerie Gooder, PhD, MS, RN; Deborah Judd, DNP, APRN; Susan Thornock, EdD, MS, RN; London Draper-Lowe, PhD, RN; **Associate Professors:** Sally Cantwell, PhD, RN; Tamara Dahlkemper, MSN, RN, CNE; Diane Leggett Fife, PhD, MS, RN; Alexandra Hanson, MSN, RN; Jeanette Harris, MSN, RN; Rieneke Holman, MS, RN; Melissa Neville, DNP, RN; Mary Anne Reynolds, PhD, RN, ACNS-BC; Kristiann Williams, DNP, APRN; **Assistant Professors:** Pamela Anderson, MSN, RN; Rachel Ardern, MN, RN; Kristy Baron, PhD, RN; Tamara Berghout, MSN, RN; Kathleen Cadman, MSN, RN; Heather Clark, MSN, RN; Julie Gee, MS, RN; Linda Hofmann, PhD, MS, RN; Jonny Kelly, MNA, RN; Monte Roberts, DNP, RN; Elizabeth Rocha, PhD, RN, Holli Sowerby, MSN, RN; Amy Stegen, MSN, RN; Jamie Wankier, MSN, RN; Carol Welninski, MSN, RN; **Instructors:** Juanita Allen, DNP, FNP, APRN; Joyce Barra, PhD, MS, RN; Cynthia Beynon, MSN, RN; Monica Bottelberghe, MSN, RN; Jaylynn Bryson, MSN, RN; Colleen Cawley, MSN, RN; Kaylene Chalmers, MSN, RN; Megan Gunnell, MSN, RN; Vicky Hansen, MSN, RN; Catherine Harmston, MSN, FNP-BC, RN; Susan Heugly, FNP, RN; Carrie Jeffrey, MSN, RN; Benjamin Johnson, MSN, RN; Kimball Johnson, MSN, RN; Constance Merrill, MSN, RN; Deon Openshaw, MSN, RN; Angela Page, MSN, APRN; Tressa Quayle, MSN, RN; Jody Reese, MSN, RN; Julie Rhodes, MSN, RN; Louise Salmond, MSN, RN, Nancy Weston, MSN, RN

## **Program History**

Founded in 1953, nursing at Weber State University offers students career progression from Associate RN Degree to Associate of Science (PN to RN) or Associate of Applied Science Degree Nursing (AAS) (PN to RN), to Baccalaureate Nursing (BSN), to Master of Science in Nursing via a ladder curriculum. The curriculum model enables student progression through various preparation levels in accordance with individual ability, aspirations, career goals and changing life circumstances. The program ensures entry level practitioners by providing a foundation from the physical, biological, behavioral and nursing sciences for application in caring for clients in a variety of nursing environments.

The nursing program embraces three levels of preparation for nursing practice: Associate's Degree Nursing (ADN), RN to BSN (BS), and Master of Science in Nursing (MSN). Educational offerings provide distinctive purposes and expectations for each level of nursing preparation while recognizing common areas of achievement within each level. Competency standards define graduate characteristics at each preparation level.

Four entry options are available for students. Two of these lead to licensure by examination at AS/AAS levels. The third option leads to a baccalaureate degree in nursing. The fourth option leads to a master of science in nursing with either a concentration in nursing administration or nursing education.

## **Entry Options**

Registered Nurse (RN) [AS]: Two years are required for students entering this option. Students selecting this option must complete nursing major credits plus fulfill university general education credits required for graduation with an associate of science degree. Students selected for an associate of science degree in nursing may take the NCLEX-PN through the equivalency clause in the Utah Nurse Practice Act at completion of the first year. An additional year of course work entitles graduates to take the National Examination for licensure as a registered nurse.

PN to RN Program (RN Completion) [AS/AAS]: This entry option is open to PN's and those eligible to take the NCLEX-PN. Students selecting this option must complete one additional year of nursing major credits plus fulfill university general education credits required for graduation with an associate of applied science / associate of science degree.

Registered Nurse to BSN (RN-to-BSN) [BS]: The BSN Option is available to registered nurses who have completed an AS degree in nursing. Potential students must have an active unencumbered Utah license or plan to successfully pass the NCLEX-RN exam within the first semester of the BSN program.

Previous graduates of an AAS degree will need to complete the WSU general education requirements for the AS Degree prior to requesting admission to the RN to BSN program.

Admission is dependent upon program space availability.

Master of Science in Nursing (MSN): The MSN program is designed to prepare 1) nurse administrators, 2) college-level nursing faculty, and 3) nurse educators employed within healthcare institutions. The concentrations of nursing educator and nurse administrator will prepare students for advanced careers in nursing. Both concentrations are specifically intended for individuals with nursing experience who want to advance their careers as nurse administrators or college faculty.

Please refer to Master of Science in Nursing (MSN) for requirements.

## **Licensure**

Applicants who have been convicted of a felony, treated for serious mental illness or substance abuse should discuss their eligibility status with the Utah State Board of Nursing. Acceptance to the nursing program does not assure eligibility for a RN license. The Utah Board of Nursing makes final decisions on issuance of professional licensure.

## **Accreditation**

The School of Nursing programs (AAS/AS, BSN, and MSN) are accredited by:

Accreditation Commission for Education in Nursing (ACEN)  
3343 Peachtree Road NE, Suite 850  
Atlanta, GA 30326  
P. 404.975.5000  
F. 404.975.5020  
www.acenursing.org

### **Admission Process For Entry Options**

*Admission is competitive; therefore, the listed criteria for admission should be considered as minimum standards.*

### **Associate of Science Degree Nursing (RN)**

*DCHP Admission Office (801) 626-6136*

Applicants for admission must first apply for admission to Weber State University. Applicants must also apply for admission to the Associate of Science Degree Nursing program. Dr. Ezekiel R. Dumke College of Health Professions Admissions Advisement Office in the Marriott Allied Heath Building (MAH108B) or complete application information and forms are available on the School of Nursing website at <http://weber.edu/nursing>. Applications must be completed and on file by the admission cycle application deadline. An application fee must be paid at the time the application is submitted. Admission applications are reviewed by the School of Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

All prerequisite courses must be successfully completed with a "C" grade or better in order to advance into the first semester of the nursing program. Admission requirements are outlined on the admissions application available at <http://weber.edu/nursing>.

### **Associate of Science/Associate of Applied Science Degree (PN-to-RN)**

*Enrollment Director (801) 626-7774, prompt 6*

Applicants for admission must first apply for admission to Weber State University. Applicants must also apply for admission to the Associate Degree Nursing program. Applications are available on the School of Nursing website at <http://weber.edu/nursing>. Applications must be completed and on file by the admission cycle application deadline. An application fee must be paid at the time the application is submitted. Admission applications are reviewed by the School of Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Applicants to this program must have an LPN license or be eligible for testing for the NCLEX-PN exam.

All prerequisite courses must be successfully completed with a "C" grade or better in order to advance into fall the third semester of the nursing program. Admission requirements are outlined on the admissions application available at <http://weber.edu/nursing>.

### **Bachelor of Science Degree (RN-to-BSN)**

*School of Nursing Enrollment Director (801) 626-7774, prompt 6*

Applicants must first apply for admission to, or be a current matriculated student of, Weber State University. Applicants must also apply for admission to the Bachelor of Science Degree Nursing program.

Applications must be completed and on file by the admission cycle application deadline. An application fee must be paid at the time the application is submitted. Admission applications are reviewed by the School of Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Admission requirements are outlined at <http://weber.edu/nursing>.

## **Master of Science in Nursing (MSN)**

*Enrollment Director (801) 626-7774, prompt 6*

### Minimum Admission Requirements:

Applicants should apply for admission to Weber State University or be a current matriculated student of Weber State University.

The online process for application to the MSN program becomes available in October of each year at [weber.edu/MSN](http://weber.edu/MSN). The priority application deadline is March 1. *Admission is for fall each year. Applicants will need to make a choice between the Administrative or Education Concentration on their application.*

An application fee must be paid at the end of the online application process. Admission applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee. For more information please contact School of Nursing Enrollment Director at (801) 626-7774, prompt 6.

*Please refer to Master of Science in Nursing (MSN) for requirements.*

## **Nursing, PN-to-RN [RN Completion] (AAS)**

*The AAS Degree is one of two options for RN Completion (PN-to-RN)*

- **Grade Requirements:** A minimum grade of "B-" in all Nursing courses in addition to a grade of "C" in each prerequisite and support course.
- **Credit Hour Requirement:** A minimum of 55 credit hours is required for the AAS (this does not include Practical Nursing Program nursing courses). Twenty residency hours are also required.

*Clinical Ratio is 1:3 (one clinical credit hour means there are three clock hours of clinical)*

### **Advisement**

Contact the School of Nursing Enrollment Director at (801) 626-7774, prompt 6, for advisement.

### **Admission Requirements**

Admission is competitive; therefore, the criteria listed on the application form should be considered as minimum standards.

*School of Nursing Enrollment Director at (801) 626-7774, prompt 6.*

Applicants for admission must first apply for admission to Weber State University. Applicants must also apply for admission to the Associate Degree Nursing Program. Applications may be obtained on the School of Nursing website at <http://weber.edu/nursing>. Applications must be completed and on file by the admission cycle application deadline. An application fee must be paid at the time the application is submitted. Admission applications are reviewed by the School of Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Applicants to this program must have an LPN license or be eligible for testing for the NCLEX-PN exam.

All prerequisite courses must be successfully completed with a "C" grade or better in order to advance into the third semester of the nursing program. Admission requirements are outlined on the admissions application available at <http://weber.edu/nursing>.

## Major Course Requirements for PN-to-RN (RN Completion) AAS Option

### Nursing Courses Required (must be taken in sequence)

*PN to RN students start in the 3rd semester of the associate degree program*

#### Third Semester

- NRS 2500 - Patient Centered Nursing Care 3 **Credits: (3)**
- NRS 2550 - Patient Centered Nursing Care Clinical 3 **Credits: (2)**
- NRS 2551 - Patient Centered Nursing Care Laboratory **Credits: (1)**
- NRS 3100 - Pharmacology for Nurses 2 **Credits: (3)**

#### Fourth Semester

- NRS 3200 - Complex Patient Centered Nursing Care 1 **Credits: (3)**
- NRS 3300 - Entry Into Nursing Professional Practice **Credits: (3)**
- NRS 3350 - Entry Into Nursing Professional Practice Preceptorship **Credits: (3)**

### Prerequisite/Support Courses Required

*(must be taken in sequence listed or earlier)*

*Prerequisite and support courses must be completed and passed with a "C" or better prior to progression to the next semester.*

#### NURSING PREREQUISITE

- Licensed as a Licensed Practical Nurse (LPN) or Utah PN-NCLEX eligible with passing LPN Boards during semester three.
- CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)** or
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- WSU Math QL Requirement

#### ***And***

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**

#### ***OR***

- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**

#### ADDITIONAL EDUCATION PREREQUISITES

- CHF 1500 SS/DV - Human Development **Credits: (3)** or
- PSY 1010 SS - Introductory Psychology **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

Third Semester

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

Fourth Semester

- HU or CA Humanities or Creative Arts (3)

## Nursing (AS)

- **Grade Requirements:** A minimum grade of "B-" in all Nursing courses in addition to a grade of "C" in each support course.
- **Credit Hour Requirement:** A minimum of 75 credit hours is required for the AS. Twenty residency hours are also required.

*Clinical Ratio is 1:3 (one clinical credit hour means there are three clock hours of clinical)*

### Advisement

Contact the DCHP Admissions Office at (801) 626-6136 for admission advisement.

### Admission Requirements

Admission is competitive; therefore, the criteria listed on the application form should be considered as minimum standards.

*DCHP Admission Office (801) 626-6136*

Applicants for admission must first apply for admission to Weber State University. Applicants must also apply for admission to the Associate of Science Degree Nursing Program. Dr. Ezekiel R. Dumke College of Health Professions Admissions Advisement Office in the Marriott Allied Health Building (MAH108B) or complete application information and forms are available on the School of Nursing website at <http://weber.edu/nursing>. Applications must be completed and on file by the admission cycle application deadline. An application fee must be paid at the time the application is submitted. Admission applications are reviewed by the School of Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

All prerequisite courses must be successfully completed with a "C" grade or better in order to advance into the first semester of the nursing program. Admission requirements are outlined on the admissions application available at <http://weber.edu/nursing>.

## Major Course Requirements for AS Degree

Nursing Courses Required (must be taken in sequence)

First Semester

- NRSG 2100 - Pharmacology for Nurses 1 **Credits: (3)**
- NRSG 2200 - Nursing Foundations **Credits: (3)**
- NRSG 2250 - Nursing Foundations Clinical **Credits: (2)**
- NRSG 2251 - Foundations of Nursing Laboratory **Credits: (1)**

## Second Semester

- NRSG 2300 - Patient Centered Nursing Care 1 **Credits: (3)**
- NRSG 2350 - Patient Centered Nursing Care Clinical 1 **Credits: (2)**
- NRSG 2351 - Patient Centered Nursing Care Laboratory **Credits:**

## Third Semester

- NRSG 2500 - Patient Centered Nursing Care 3 **Credits: (3)**
- NRSG 2550 - Patient Centered Nursing Care Clinical 3 **Credits: (2)**
- NRSG 2551 - Patient Centered Nursing Care Laboratory **Credits: (1)**
- NRSG 3100 - Pharmacology for Nurses 2 **Credits: (3)**

## Fourth Semester

- NRSG 3200 - Complex Patient Centered Nursing Care 1 **Credits: (3)**
- NRSG 3300 - Entry Into Nursing Professional Practice **Credits: (3)**
- NRSG 3350 - Entry Into Nursing Professional Practice Preceptorship **Credits: (3)**

## Prerequisite/Support Courses Required

(must be taken in sequence listed or earlier)

Prerequisite and support courses must be completed and passed with a "C" or better prior to progression to the next semester.

- CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)** or
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- WSU Math QL Requirement (3)

**And**

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**

**OR**

- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**

## Additional General Education and Support Courses

- CHF 1500 SS/DV - Human Development **Credits: (3)** or
  - PSY 1010 SS - Introductory Psychology **Credits: (3)**
- \*Additional WSU Gen Ed Courses for Core, Breadth and Degree Requirements to meet an Associate of Science Degree***

## Sample Plan of Study for General Education and Support Courses

First Semester

Second Semester

- ENGL 1010 EN - Introductory College Writing **Credits: (3)** or equivalent
- PSY 1010 SS - Introductory Psychology **Credits: (3)**

These courses must be completed before Third Semester

- American Institution Gen Ed Course (3)
- \*Humanities Gen Ed Course (3)
- \*Gen Ed SS Social Science (3)

Third Semester

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

Fourth Semester

- \*Gen Ed HU or CA Humanities or Creative Arts **(3)**
- Gen Ed IL Information Literacy **(4)**
- \*Gen Ed CA Creative Arts **(3)**

\*Note:

*\*University diversity requirement for AS Degree can be met by taking an approved course. See Diversity Requirement*

## Nursing PN-to-RN [RN Completion] (AS)

*The AS Degree is one of two options for PN-to-RN (RN Completion)*

- **Grade Requirements:** A minimum grade of "B-" in all Nursing courses in addition to a grade of "C" in each support course.
- **Credit Hour Requirement:** A minimum of 61 credit hours is required for the AS (this does not include Practical Nursing Program nursing courses). Twenty residency hours are also required.

*Clinical Ratio is 1:3 (one clinical credit hour means there are three clock hours of clinical)*

### Advisement

Contact the School of Nursing Enrollment Director at (801) 626-7774, prompt 6, for admission advisement.

### Admission Requirements

Admission is competitive; therefore, the criteria listed on the application form should be considered as minimum standards.

*School of Nursing Enrollment Director at (801) 626-7774, prompt 6.*

Applicants must first apply for admission to Weber State University. Applicants must also apply for admission to the PN to RN (RN Completion) Program. Admission times and deadlines vary according to campus location. For applications and deadline information, please contact the School of Nursing Enrollment Director. Admission applications are reviewed and evaluated by School of Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Admission requirements are outlined on the admissions application available at <http://weber.edu/nursing>. Applicants to this program must have an LPN license or be eligible for testing for the NCLEX-PN exam. Accepted applicants must have their PN license prior to the end of their third semester.

## **Major Course Requirements for PN-to-RN (RN Completion) AS Option**

Nursing Courses Required (must be taken in sequence)

*PN to RN students start in the 3rd semester of the associate degree program.*

### Third Semester

- NRS 2500 - Patient Centered Nursing Care 3 **Credits: (3)**
- NRS 2550 - Patient Centered Nursing Care Clinical 3 **Credits: (2)**
- NRS 2551 - Patient Centered Nursing Care Laboratory **Credits: (1)**
- NRS 3100 - Pharmacology for Nurses 2 **Credits: (3)**

### Fourth Semester

- NRS 3200 - Complex Patient Centered Nursing Care 1 **Credits: (3)**
- NRS 3300 - Entry Into Nursing Professional Practice **Credits: (3)**
- NRS 3350 - Entry Into Nursing Professional Practice Preceptorship **Credits: (3)**

### Prerequisite/Support Courses Required

*(must be taken in sequence listed or earlier)*

*Prerequisite and support courses must be completed and passed with a "C" or better prior to progression to the next semester.*

### NURSING PREREQUISITE

- Licensed as a Licensed Practical Nurse (LPN) or Utah PN-NCLEX eligible with passing LPN Boards during semester three.
- CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)** or
- CHEM 1110 PS - Elementary Chemistry **Credits: (5)**
- WSU Math QL Requirement

#### ***And***

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**

#### ***OR***

- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**

## ADDITIONAL PREREQUISITES

- CHF 1500 SS/DV - Human Development **Credits: (3)** or
- PSY 1010 SS - Introductory Psychology **Credits: (3)**  
**\*Additional WSU Gen Ed Courses for Core, Breadth and Degree Requirements to meet an Associate of Science Degree**

### Third Semester

- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

### Fourth Semester

- Gen Ed HU or CA Humanities or Creative Arts (3)
- Gen Ed IL Information Literacy (2-4)
- Gen Ed CA Creative Arts (3)

## Nursing, RN-to-BSN (BS)

- **Admission Requirements:** Graduate of an Accreditation Commission for Education in Nursing (ACEN) Program or equivalent program. A challenge examination may be required for those graduating from an equivalent program. Current licensure as a registered nurse in the State of Utah without restrictions is required.
- **Minor:** Not required.
- **Grade Requirements:** A minimum grade of "B-" or better is required in all upper division nursing courses, and a grade of "C" or better is required for all support courses.
- **Credit Hour Requirements:** A total of 120 credit hours is required for a Bachelor of Science Degree. Of the 120 hours, 40 must be upper division level. The BSN nursing curriculum provides 28 upper division hours.

### Advisement

Contact the School of Nursing Enrollment Director at (801) 626-7774, prompt 6, for admission advisement.

### Admission Requirements

*Admission is competitive; therefore, the criteria listed on the application form should be considered as minimum standards.*

Applicants must first apply for admission to, or be a current matriculated student of, Weber State University. Applicants must also apply for admission to the Bachelor of Science Degree Nursing program. Applications may be obtained through the School of Nursing Enrollment Director.

Applications must be completed and on file by the admission cycle application deadline. An application fee must be paid at the time the application is submitted. Admission applications are reviewed by the School of Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Admission requirements are outlined on the applicant website available at <http://weber.edu/nursing>.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Prerequisites

*Students must have completed the following classes or their equivalent.*

- CHEM 1110 PS - Elementary Chemistry **Credits: (5)** or
- CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)**
  
- \*Human Anatomy and Human Physiology (8 cr) OR
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**
  
- PSY 1010 SS - Introductory Psychology **Credits: (3)**
- ENGL 2010 EN - Intermediate College Writing **Credits: (3)**
- WSU Quantitative Literacy Requirements (Math 1030, 1040, 1050, 1080)

Note:

*\* HTHS LS1110 and 1111 (or previous 111, 112, and 113 is an acceptable equivalent)*

## Major Course Requirements for BS Degree (RN to BSN)

Nursing Courses Required (25 credit hours)

Complete the following classes:

- NRSG 4100 - Complex Patient Centered Nursing Care 2 **Credits: (3)**
- NRSG 4200 - Scholarship for Evidence-Based Practice **Credits: (3)**
- NRSG 4300 - Healthcare Policy and Decision Making **Credits: (3)**
- NRSG 4400 - Population Health in Nursing **Credits: (4)**
- NRSG 4500 - Nursing Management and Leadership **Credits: (3)**
- NRSG 4600 - Communication, Collaboration, and Information Management in Healthcare **Credits: (3)**

Select six (6) credit hours from the following courses:

- NRSG 4045 - ELNEC: End-of-Life Nursing Education Consortium **Credits: (3)**
- NRSG 4050 - Nursing Assessment Across the Life Span **Credits: (3)**
- NRSG 4060 - Oncology Nursing **Credits: (3)**
- NRSG 4070 - Threats and Crises: Nursing Response **Credits: (3)**
- NRSG 4080 - Nursing: High Risk Adult **Credits: (3)**
- NRSG 4090 - Nursing: High Risk OB/Pediatric Patient **Credits: (3)**
- NRSG 4392 - Principles of Care Management **Credits: (3)**
- NRSG 4700 - Forensic Nursing **Credits: (3)**
- HAS 3240 - Human Resource Development in Health Care **Credits: (3)**

Upper Division Elective (3 credit hours)

*Complete 3 hours of upper division credits from any department.*

# Nursing Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## School of Radiologic Sciences

**Department Chair:** Robert Walker, PhD, RT(R)(MR)(CT)(QM), FASRT

**Location:** Marriott Health Building, Room 363

**Telephone Contact:** 801-626-6329

Radiology: Cathy Wells

Specialties: Blakely McKinnie

**Toll Free Telephone:** 1-800-848-7770, Option 1

**Independent Study Manager:** Lori Fredericksen 801-626-6619

**Admissions/Counseling:** Eric Neff 801-626-6128

**Master of Science Radiologic Sciences Graduate Enrollment Director:** Lonnie Lujan 801-626-6088

**Professors:** Wynn Harrison, Diane Kawamura, Robert Walker; **Associate Professors:** Rex Christensen, Tanya Nolan; **Assistant Professors:** Victor Clampitt, Casey Neville; **Instructor:** Taylor Ward; **Adjunct Faculty:** Daryn Ashby, Julie Hawk, Ryan Hecox, Christopher Marston

**Radiologic Sciences** is a medical field that uses ionizing radiation, sound waves and magnetic fields to produce medical images for diagnostic purposes or to treat diseases by combining medical procedures with technology.

**Please refer to the Master of Science in Radiologic Sciences (MSRS)**

### Radiography

The Radiography program provides integrated didactic instruction with the utilization of on campus x-ray rooms and clinical experience in Radiology departments of the affiliated health facilities. During the course of the program, radiologic physics, anatomy, radiographic procedures, positioning, and patient assessment are taught. The student will participate in clinical education within the affiliate health facilities throughout the program.

The program is 5 continuous semesters. The student qualifies for an Associate of Applied Science degree upon completion of the general education requirements and the professional course work. Upper division elective courses completed during the program may be applied toward a baccalaureate degree.

### Diagnostic Medical Sonography

The Diagnostic Medical Sonography program is designed as an advanced discipline of study for two-year graduates of radiography programs or equivalent as determined by the School of Radiologic Sciences. A student can complete the required courses and be eligible to sit for the national certification examination. The courses offered in Diagnostic Medical Sonography are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students who have been accepted into the Bachelor of Science program.

The program and support courses are four (4) semesters in length for the Cardiac Emphasis or the Medical Emphasis and three (3) semesters in length for the Vascular Emphasis. A competency-based evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to receive grades for the course. The clinical education courses require a minimum of 24 clock hours per calendar week in an affiliated health care facility.

## **Nuclear Medicine**

The Nuclear Medicine program is designed as an advanced discipline of study for ARRT registered technologists or the acceptable equivalent. A student can complete the required courses, obtain a certificate of completion, and be eligible to sit for the national certification examination. The courses offered in the Nuclear Medicine program are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students who have been accepted into the Bachelor of Science program.

The program is three (3) full semesters in length, which requires the student to attend in the summer. A competency-based clinical evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to receive grades for the course. A minimum of 24 clock hours per week of clinical education must be completed in an affiliated health care facility.

## **Radiation Therapy**

The Radiation Therapy program is designed as an advanced discipline of study for graduates of accredited programs. A student can complete the required courses, obtain a certificate of completion, and be eligible to sit for the national certification examination. The courses offered in the Radiation Therapy program are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students who have been accepted into the Bachelor of Science program.

The program is three (3) full semesters in length, which requires the student to attend in the summer. A competency-based clinical evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to receive grades for the course. A minimum of 24 clock hours per week of clinical education must be completed in an affiliated health care facility.

## **Advanced Radiologic Science**

The Advanced Radiologic Sciences program is designed as an advanced discipline of study for ARRT registered technologists or equivalent as determined by the School of Radiologic Sciences. Students in the program must select an area or combination of areas of emphasis. These areas are designed to meet your career goals in medical imaging modalities and for technical management and educational positions. The courses offered in the Advanced Radiologic Sciences are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students in the Bachelor of Science program.

The programs are either three (3) or four (4) semesters in length, depending on the emphasis, which requires the student to attend in the summer. A competency-based clinical evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to be eligible to sit for the national certification examinations. A minimum of 24 clock hours per week of clinical education must be completed in an affiliated health care facility.

The following emphases are available:

- Advanced Radiologic Sciences
- Cardiovascular-Interventional Technology (CIT)
- Computed Tomography (CT)
- Magnetic Resonance Imaging (MRI)
- CT/MRI Combined
- Quality Management
- Women's Imaging
- Radiologist Assistant (RA)

# Radiography (AAS)

Radiography is a program offered under School of Radiologic Sciences. The program provides integrated didactic instruction with the utilization of on campus x-ray rooms and clinical experience in Radiology departments of the affiliated health facilities. During the course of the program, radiologic physics, anatomy, radiographic procedures, positioning, and patient assessment are taught. The student will participate in clinical education within the affiliate health facilities throughout the program.

The program is 5 continuous semesters. The student qualifies for an associate of applied science degree upon completion of the general education requirements and the professional course work. Upper division elective courses completed during the program may be applied toward a baccalaureate degree.

- **Program Prerequisite:** Complete the prerequisite courses, make application and be accepted to the program. Please contact the DCHP Admissions Advisement Center at 801-626-7136/6136 for a list of specific prerequisite courses.
- **Grade Requirements:** Demonstrate ability to achieve scholastically with grades of C or better.
- **Credit Hour Requirements:** The credit hours required for graduation with an AAS degree are 23-26 credit hours of prerequisite courses and 60 credit hours of didactic and clinical education courses.

## Advisement

Students accepted into the program should meet annually with assigned faculty advisor for course and program review.

## Admission Requirements

- Be accepted to Weber State University and declare program of study as Radiography applicant.
- Apply to the Radiography Program for acceptance and follow the procedures as outlined on the program application, which is in addition to the Weber State Admissions Application. The deadline date for applications to be received is January 10 of each year. Student selection is made during Spring semester and those accepted into the program begin their professional phase of the curriculum the following fall semester.
- Pay the \$25 program application fee.
- Present a satisfactory high school and/or college(s) transcript(s).
- Complete the general education courses listed below.

## General Education

Refer to Degree Requirements degree requirements.

The following are required:

English ENGL 1010 (3)

English ENGL 2010 (3) or an oral or written Communication course

Quantitative Literacy - MATH 1010 (4)

Computer Literacy (demonstrate literacy) no credit

Social Sciences (Introductory Psychology) Course (3)

Humanities (Communication) Course (3)

Life Science (3)

or Health Sciences (Biomed) HTHS 1110 (4) and HTHS 1111 (4)

## Major Course Requirements for AAS Degree

### Courses Required (60 credit hours)

- RADT 1022 - Introduction to Radiologic Technology **Credits: (2)**
- RADT 1303 - Principles of Radiographic Exposure I **Credits: (3)**
- RADT 1502 - Radiographic Anatomy and Positioning I **Credits: (2)**
- RADT 1512 - Radiographic Anatomy and Positioning II **Credits: (3)**
- RADT 1522 - Radiographic Anatomy and Positioning III **Credits: (2)**
- RADT 1532 - Radiographic Anatomy and Positioning IV **Credits: (3)**
- RADT 1601 - Laboratory Experience **Credits: (2)**
- RADT 1621 - Laboratory Experience **Credits: (2)**
- RADT 1641 - Laboratory Experience **Credits: (1)**
- RADT 1661 - Laboratory Experience **Credits: (1)**
- RADT 2043 - Patient Care and Assessment I **Credits: (2)**
- RADT 2272 - Basic Sectional Anatomy **Credits: (2)**
- RADT 2403 - Principles of Radiographic Exposure II **Credits: (2)**
- RADT 2861 - Clinical Education **Credits: (3)**
- RADT 2862 - Clinical Education **Credits: (3)**
- RADT 2863 - Clinical Education **Credits: (3)**
- RADT 2864 - Clinical Education **Credits: (3)**
- RADT 2865 - Clinical Education **Credits: (2)**
- RADT 2866 - Final Competency Evaluation **Credits: (2)**
- RADT 2913 - Comprehensive Review **Credits: (2)**
- RADT 3003 - Psycho-Social Medicine **Credits: (3)**
- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3403 - Radiobiology & Health Physics **Credits: (3)**
- RADT 3443 - Quality Assurance in Radiology **Credits: (3)**
- RADT 3463 - Computerized Imaging **Credits: (3)**
- RADT 2821 - Directed Readings & Research 1 **Credits: (3)**
- RADT 2822 - Directed Readings & Research 2 **Credits: (3)**
- RADT 2823 - Directed Readings & Research 3 **Credits: (3)**
- RADT 2824 - Directed Readings & Research 4 **Credits: (3)**
- RADT 2825 - Directed Readings & Research 5 **Credits: (3)**

### Elective Courses

*Additional course work is necessary to prepare students for ARRT certification. Contact the School of Radiologic Sciences for a course sequence that includes applicable electives. This will add 19 additional credit hours. The electives will be from the following list. Each course listed may be repeated for credit.*

- RADT 2803 - Independent Research **Credits: (1-3)**
- RADT 2921 - Workshop, Conferences and Telecourses **Credits: (1-3)**
- RADT 2942 - Career Planning and New Technology **Credits: (2)**
- RADT 2992 - Seminar **Credits: (1-2)**

### Departmental Certificate

- RADT 1542 - Radiographic Anatomy and Positioning V **Credits: (2)**
- RADT 1681 - Lab Experience **Credits: (1)**

- RADT 2865 - Clinical Education **Credits: (2)**
- RADT 2921 - Workshop, Conferences and Telecourses **Credits: (1-3)**

## Diagnostic Medical Sonography (BS)

- **Program Prerequisite:** Must be an ARRT registered technologist or acceptable equivalent as determined by the School of Radiologic Sciences, make application and be accepted to the program of choice (refer to Admission Process below).
- **Minor:** The Advanced Radiologic Sciences minor is automatically satisfied by the requirements for the Diagnostic Medical Sonography major.
- **Grade Requirements:** After admittance to the program, a GPA of 2.0 or a grade of "C" is required in all professional courses.
- **Credit Hour Requirements:** Credit hours required will vary according to the chosen emphasis. Consult with a faculty member to complete an academic contract.

### Advisement

Students should meet with the admissions counselor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Process

To be eligible for admission to the Diagnostic Medical Sonography program, the following criteria must be met:

1. Application must be made to Weber State.
2. Demonstrate ability to achieve scholastically.
3. Complete an application to the desired program and pay the \$25 application fee.
4. Provide the following with the application
  1. transcripts from hospital certificate program or colleges and universities;
  2. high school transcripts if no previous college experience; and
  3. copy of ARRT certification or equivalent.
5. Have all pertinent material on file January 10.
6. The Program of Study within the Diagnostic Medical Sonography emphasis area will be declared upon acceptance into modality.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree

DMS Courses Required (6 credit hours)

- DMS 4110 - Sonography Principles & Instrumentation **Credits: (3)**
- DMS 4120 - Quality Assurance **Credits: (3)**

Radiography Courses Required (24 credit hours)

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**

- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3123 - Sectional Anatomy **Credits: (3)**
- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3243 - Patient Care and Assessment II **Credits: (3)**
- RADT 3253 - Patient Care and Assessment III **Credits: (3)**
- RADT 4933 - Research Methods **Credits: (3)**
- RADT 4943 - Baccalaureate Thesis **Credits: (3)**

### Support Course Electives (6 credit hours)

*Select 6 credit hours from the following*

- DMS 4410 - Vascular Sonography I **Credits: (2) \***
- DMS 4510 - Breast Sonography **Credits: (1)**
- DMS 4801 - Individualized Research **Credits: (1-3)**
- DMS 4841 - Breast Clinical **Credits: (3)**
- DMS 4921 - Workshops, Conferences and Telecourses **Credits: (1-3)**
- RADT 3000 or 4000 courses other than those listed above

Note:

*\*for Cardiac and Medical Emphases Only*

### Emphasis Requirements

*Complete the courses for one of the following three emphasis areas: Cardiac Emphasis (20 credit hours), Medical Emphasis (20 credit hours), or Vascular Emphasis (16 credit hours).*

#### Cardiac Emphasis

- DMS 4210 - Cardiac Sonography I **Credits: (3)**
- DMS 4220 - Cardiac Sonography II **Credits: (3)**
- DMS 4230 - Cardiac Sonography III **Credits: (3)**
- DMS 4610 - Cardiac Laboratory **Credits: (1)**
- DMS 4811 - Cardiac Clinical I **Credits: (3)**
- DMS 4812 - Cardiac Clinical II **Credits: (3)**
- DMS 4813 - Cardiac Clinical III **Credits: (3)**
- DMS 4911 - Cardiac Comprehensive Review **Credits: (1)**

#### Medical Emphasis

- DMS 4310 - Abdominal Sonography **Credits: (3)**
- DMS 4320 - Superficial Structure Sonography **Credits: (1)**
- DMS 4330 - Gynecologic Sonography **Credits: (1)**
- DMS 4340 - Obstetric Sonography **Credits: (3)**
- DMS 4620 - Medical Laboratory **Credits: (1)**
- DMS 4821 - Medical Clinical I **Credits: (3)**
- DMS 4822 - Medical Clinical II **Credits: (3)**
- DMS 4823 - Medical Clinical III **Credits: (3)**
- DMS 4912 - Medical Comprehensive Review **Credits: (2)**

## Vascular Emphasis

- DMS 4410 - Vascular Sonography I **Credits: (2)**
- DMS 4420 - Vascular Sonography II **Credits: (3)**
- DMS 4630 - Vascular Laboratory **Credits: (1)**
- DMS 4831 - Vascular Clinical I **Credits: (3)**
- DMS 4832 - Vascular Clinical II **Credits: (3)**
- DMS 4833 - Vascular Clinical III **Credits: (3)**
- DMS 4913 - Vascular Comprehensive Review **Credits: (1)**

## Nuclear Medicine (BS)

- **Program Prerequisite:** Must be an ARRT registered technologist or acceptable equivalent as determined by the School of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Process below).
- **Minor:** The Advanced Radiologic Sciences minor is automatically satisfied by the requirements for the Nuclear Medicine major.
- **Grade Requirements:** After admittance to the program, a GPA of 2.0 is required in all professional courses.
- **Credit Hour Requirements:** A total of 29 credit hours in didactic courses and clinical education are required. The support courses or the equivalent must be completed to obtain the degree.

### Advisement

Students should meet with a faculty advisor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Process

To be eligible for admission to the Nuclear Medicine program, the following criteria must be met:

1. Application and admission to Weber State University.
2. Demonstrate ability to achieve scholastically.
3. Complete an application to the desired program and pay the \$25 application fee.
4. Provide the following with the application:
  1. transcripts from hospital certificate programs or colleges and universities;
  2. high school transcripts, if no previous college experience; and
  3. copy of ARRT certification or equivalent.
5. Have all pertinent material on file by January 10.
6. The Program of Study for Nuclear Medicine will be declared upon acceptance into modality.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree

Nuclear Medicine Courses Required (29 credit hours)

- NUCM 4103 - Radiopharmaceuticals and Dosages **Credits: (3)**

- NUCM 4203 - Scanning and Imaging Procedures I **Credits: (3)**
- NUCM 4213 - Scanning and Imaging Procedures II **Credits: (3)**
- NUCM 4223 - Nuclear Cardiology **Credits: (3)**
- NUCM 4303 - Radionuclide Physics & Instrumentation **Credits: (3)**
- NUCM 4333 - Quality Assurance **Credits: (3)**
- NUCM 4861 - Clinical Education **Credits: (3)**
- NUCM 4862 - Clinical Education **Credits: (3)**
- NUCM 4863 - Clinical Education **Credits: (3)**
- NUCM 4912 - Comprehensive Review **Credits: (2)**

### Radiography Courses Required (33 credit hours)

- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3123 - Sectional Anatomy **Credits: (3)**
- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3243 - Patient Care and Assessment II **Credits: (3)**
- RADT 3263 - Diagnostic Services Pharmacology **Credits: (3)**
- RADT 3403 - Radiobiology & Health Physics **Credits: (3)**
- RADT 3423 - Federal Regulations **Credits: (3)**
- RADT 3563 - Managing Clinical Information **Credits: (3)**
- RADT 4303 - Cardiology **Credits: (3)**
- RADT 4933 - Research Methods **Credits: (3)**
- RADT 4943 - Baccalaureate Thesis **Credits: (3)**

### Elective

- NUCM 4991 - Seminar **Credits: (1)**

### Recommended Course to Fulfill Diversity

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**

## Radiation Therapy (BS)

- **Program Prerequisite:** Must be an ARRT registered technologist or acceptable equivalent as determined by the School of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Process below).
- **Minor:** The Advanced Radiologic Sciences minor is automatically satisfied by the requirements for the Radiation Therapy major.
- **Grade Requirements:** After admission to the program, a GPA of 2.0 or a "C" is required in the professional courses.
- **Credit Hour Requirements:** A total of 27 credit hours in didactic courses and 9 credit hours in clinical education are required. The support courses or the equivalent must be completed to obtain the degree.

## Advisement

Students should meet with a faculty advisor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Process

To be eligible for admission to the Radiation Therapy program, the following criteria must be met:

1. Application and admission to Weber State University.
2. Demonstrate ability to achieve scholastically.
3. Complete an application to the desired program and pay the \$25 application fee.
4. Provide the following with the application:
  1. transcripts from hospital certificate programs or colleges and universities;
  2. high school transcripts, if no previous college experience; and
  3. copy of ARRT certification or equivalent.
5. Have all pertinent material on file by January 10.
6. The Program of Study for Radiation Therapy will be declared upon acceptance into modality.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree

### Radiation Therapy Courses Required (36 credit hours)

- RATH 4330 - Radiation Therapy Physics **Credits: (3)**
- RATH 4342 - Introduction to Treatment Planning **Credits: (3)**
- RATH 4410 - Radiation Oncology I **Credits: (3)**
- RATH 4412 - Radiation Oncology II **Credits: (3)**
- RATH 4414 - Radiation Oncology III **Credits: (3)**
- RATH 4444 - Advanced Treatment Planning/Brachytherapy **Credits: (3)**
- RATH 4446 - Quality Assurance **Credits: (3)**
- RATH 4448 - New Technology in Radiation Therapy **Credits: (3)**
- RATH 4861 - Clinical Education I **Credits: (3)**
- RATH 4862 - Clinical Education II **Credits: (3)**
- RATH 4863 - Clinical Education III **Credits: (3)**
- RATH 4913 - Comprehensive Review **Credits: (3)**

### Radiography Courses Required (18 credit hours)

- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3243 - Patient Care and Assessment II **Credits: (3)**
- RADT 3403 - Radiobiology & Health Physics **Credits: (3)**
- RADT 3563 - Managing Clinical Information **Credits: (3)**
- RADT 4933 - Research Methods **Credits: (3)**
- RADT 4943 - Baccalaureate Thesis **Credits: (3)**

## Recommended Course to Fulfill Diversity

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**

## Elective Courses

- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3263 - Diagnostic Services Pharmacology **Credits: (3)**
- RADT 3423 - Federal Regulations **Credits: (3)**
- RADT 4992 - Seminar **Credits: (1-2)**

# Radiologic Sciences, Advanced (BS)

The Advanced Radiologic Sciences program is designed to fill the continuing education needs of registered technologists, to provide a career ladder for those who wish to obtain additional skills in a specialized area, and to provide an opportunity to earn a Bachelor of Science (BS) degree. Programs of study are designed to meet the career goals of students in medical imaging modalities and for technical, management and educational positions. The following emphases or programs are available:

1. Advanced Radiography
2. Magnetic Resonance Imaging and/or Computed Tomography (MRI and CT)
3. Cardiovascular-Interventional Technology (CIT)
4. Women's Imaging
5. Radiologist Assistant (RA)\*

*\*The Radiology Assistant program requires the consent of a supervising physician, 5 years experience as an ARRT registered technologist (RT) and that the General Education requirements at Weber State University be met.*

- **Program Prerequisite:** Must be an ARRT registered technologist or acceptable equivalent as determined by the School of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Requirements below).
- **Minor:** Students may select any approved minor in consultation with a faculty advisor and the completion of an academic contract. A minor is not required for the Radiology Assistant (RA) program.
- **Grade Requirements:** After admittance into the program of choice, a GPA of 2.0 is required in all professional courses.
- **Credit Hours:** A total of 120 credit hours are required for graduation; 30-48 of these must be within the major emphasis.

## Advisement

Students must meet with a faculty advisor for the program of study selected and should meet with a faculty advisor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

1. Apply for admission to Weber State University;
2. Apply to the program of choice and submit a \$25.00 application fee;
3. Submit copy of active ARRT certification card or acceptable equivalent;
4. Submit transcripts from all colleges and universities attended;
5. Complete an academic contract in consultation with a faculty advisor;

6. The Program of Study within the Advanced Radiologic Sciences major will be declared upon acceptance into modality.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements.

## Major Course Requirements for BS Degree

Radiography Courses Required (6 credit hours)

- RADT 4933 - Research Methods **Credits: (3)**
- RADT 4943 - Baccalaureate Thesis **Credits: (3)**

Specific Requirement:

*Students must complete an upper division research course in either the major area of emphasis or in the minor emphasis. The course must be equivalent to RADT 4943 - Baccalaureate Thesis (3) and approved by a faculty advisor.*

## Emphasis Requirements

*Complete one of the following emphases:*

Advanced Radiologic Sciences Emphasis

Required Courses (12 credit hours)

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**
- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3423 - Federal Regulations **Credits: (3)**
- RADT 4203 - Patient Education in Radiology **Credits: (3)**

Electives (select 25-33 credit hours)

*Elective courses must have approval of a faculty advisor.*

- RADT 3123 - Sectional Anatomy **Credits: (3)**
- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3243 - Patient Care and Assessment II **Credits: (3)**
- RADT 3253 - Patient Care and Assessment III **Credits: (3)**
- RADT 3263 - Diagnostic Services Pharmacology **Credits: (3)**
- RADT 3403 - Radiobiology & Health Physics **Credits: (3)**
- RADT 3443 - Quality Assurance in Radiology **Credits: (3)**
- RADT 3463 - Computerized Imaging **Credits: (3)**
- RADT 3563 - Managing Clinical Information **Credits: (3)**
- RADT 3863 - Clinical Internship **Credits: (2-6)**
- RADT 4213 - Supervision and Staff Development **Credits: (3)**
- RADT 4223 - Promotional Strategies **Credits: (3)**
- RADT 4233 - Fiscal Analysis in Radiology **Credits: (3)**
- RADT 4243 - Quality Management in Radiology **Credits: (3)**

- RADT 4253 - Risk Management **Credits: (3)**
- RADT 4303 - Cardiology **Credits: (3)**
- RADT 4403 - Imaging Pathology **Credits: (3)**
- RADT 4413 - Forensic Radiology **Credits: (3)**
- RADT 4433 - PACS Administration **Credits: (3)**
- RADT 4443 - Imaging Informatics **Credits: (3)**
- RADT 4543 - Bone Densitometry **Credits: (3)**
- RADT 4573 - The Female Patient and Medical Imaging **Credits: (3)**
- RADT 4803 - Individual Research **Credits: (1-3)**
- RADT 4833 - Directed Readings and Research **Credits: (3)**
- RADT 4863 - Clinical Internship **Credits: (2-4)**
- RADT 4922 - Workshop, Conferences and Telecourses **Credits: (2)**
- RADT 4942 - Current Issues and Trends **Credits: (2)**
- RADT 4992 - Seminar **Credits: (1-2)**

## Magnetic Resonance Imaging (MRI) and/or Computed Tomography (CT) Emphasis

Support Courses for CT and MRI (29-33 credit hours)

- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3123 - Sectional Anatomy **Credits: (3)**
- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3253 - Patient Care and Assessment III **Credits: (3)**
- RADT 3403 - Radiobiology & Health Physics **Credits: (3)**
- RADT 3563 - Managing Clinical Information **Credits: (3)**
- RADT 3863 - Clinical Internship **Credits: (2-6)** (3 credit hours required)
- RADT 4203 - Patient Education in Radiology **Credits: (3)**
- RADT 4303 - Cardiology **Credits: (3)**
- RADT 4863 - Clinical Internship **Credits: (2-4)** (3 credit hours required)

Recommended Course to Fulfill Diversity

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**

Magnetic Resonance Imaging (MRI) Required Courses (14 credit hours)

- RADT 4603 - Magnetic Resonance Imaging Physics and Instrumentation **Credits: (3)**
- RADT 4623 - Advanced MRI Procedures and Safety **Credits: (3)**
- RADT 4633 - Magnetic Resonance Imaging of the Central Nervous System **Credits: (3)**
- RADT 4643 - Magnetic Resonance of the Torso and Limbs **Credits: (3)**
- RADT 4912 - Comprehensive Review/MRI **Credits: (2)**

Computed Tomography (CT) Required Courses (11 credit hours)

- RADT 4613 - Computed Tomography of the Torso and Limbs **Credits: (3)**
- RADT 4653 - Computed Tomography of the Central Nervous System **Credits: (3)**
- RADT 4663 - Computed Tomography Physics and Instrumentations **Credits: (3)**
- RADT 4911 - Comprehensive Review/CT **Credits: (2)**

Elective

- RADT 4803 - Individual Research **Credits: (1-3)**

## Cardiovascular-Interventional Technology (CIT) Emphasis

Required Courses (9 credit hours)

- RADT 4313 - Visceral, Pelvic and Extremity Angiography **Credits: (3)**
- RADT 4333 - Head and Neck Angiography **Credits: (3)**
- RADT 4343 - Thoracic and Venous Procedures **Credits: (3)**

Support Courses for CIT (32 credit hours)

- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3123 - Sectional Anatomy **Credits: (3)**
- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3253 - Patient Care and Assessment III **Credits: (3)**
- RADT 3263 - Diagnostic Services Pharmacology **Credits: (3)**
- RADT 3563 - Managing Clinical Information **Credits: (3)**
- RADT 3863 - Clinical Internship **Credits: (2-6)**
- RADT 4203 - Patient Education in Radiology **Credits: (3)**
- RADT 4303 - Cardiology **Credits: (3)**
- RADT 4863 - Clinical Internship **Credits: (2-4)**
- RADT 4913 - Comprehensive Review/CIT **Credits: (2)**

Recommended Course to Fulfill Diversity

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**

## Women's Imaging Emphasis

Required Courses (23 credit hours)

- RADT 3863 - Clinical Internship **Credits: (2-6)** (3 credit hours required)
- RADT 4543 - Bone Densitometry **Credits: (3)**
- RADT 4553 - Breast Anatomy, Physiology and Pathology **Credits: (3)**
- RADT 4563 - Mammographic Positioning/Imaging Techniques **Credits: (3)**
- RADT 4572 - Patient Education and Clinical Examination **Credits: (2)**
- RADT 4583 - Mammographic Equipment and Quality Assurance **Credits: (3)**
- RADT 4862 - Clinical Internship **Credits: (2)**
- DMS 4510 - Breast Sonography **Credits: (1)**
- DMS 4841 - Breast Clinical **Credits: (3)**

Support Courses (15 credit hours)

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**
- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3423 - Federal Regulations **Credits: (3)**
- RADT 4573 - The Female Patient and Medical Imaging **Credits: (3)**

- DMS 4110 - Sonography Principles & Instrumentation **Credits: (3)**

#### Electives

- RADT 3563 - Managing Clinical Information **Credits: (3)**
- RADT 4833 - Directed Readings and Research **Credits: (3)**
- RADT 4914 - Comprehensive Review/M **Credits: (2)**
- RADT 4992 - Seminar **Credits: (1-2)** (2 credit hours required)

#### Radiologist Assistant Emphasis

*Students interested in the Radiologist Assistant (RA) Program should contact the School of Radiologic Sciences.*

*A minor emphasis is not required.*

*Prerequisites: Applicants must be an ARRT registered technologist, have a minimum of five years experience as a registered technologist in radiography, meet the Degree Requirements at Weber State University, and have the consent of a radiologist.*

#### Required Courses (45 credit hours)

- MSRS 6403 - Evaluation of the Osseous System **Credits: (3)**
- MSRS 6413 - Evaluation of the Chest **Credits: (3)**
- MSRS 6423 - Evaluation of the Abdomen and G I System **Credits: (3)**
- MSRS 6433 - Evaluation of the Genitourinary System **Credits: (3)**
- MSRS 6453 - Evaluation/CNS and Facial Structures **Credits: (3)**
- MSRS 6861 - Clinical Preceptorship **Credits: (3)**
- MSRS 6862 - Clinical Preceptorship **Credits: (3)**
- RADT 6863 - Clinical Preceptorship **Credits: (3)**
- RADT 5864G - Clinical Preceptorship **Credits: (3)**
- RADT 5867G - Competency Assessment/Residency **Credits: (3)**

#### Support Courses (33 credit hours)

- RADT 3003 - Psycho-Social Medicine **Credits: (3)**
- RADT 3043 - Medical Ethics and Law **Credits: (3)**
- RADT 3123 - Sectional Anatomy **Credits: (3)**
- RADT 3143 - Imaging Pathophysiology **Credits: (3)**
- RADT 3253 - Patient Care and Assessment III **Credits: (3)**
- RADT 3263 - Diagnostic Services Pharmacology **Credits: (3)**
- RADT 3403 - Radiobiology & Health Physics **Credits: (3)**
- RADT 3423 - Federal Regulations **Credits: (3)**
- RADT 4203 - Patient Education in Radiology **Credits: (3)**
- RADT 4303 - Cardiology **Credits: (3)**
- RADT 4833 - Directed Readings and Research **Credits: (3)**

## Radiologic Sciences, Advanced, Minor Emphasis

- **Grade Requirements:** A GPA of 2.0 in all courses used toward the minor.
- **Credit Hour Requirements:** 18-24 credit hours in Advanced Radiologic Sciences. An academic contract must be generated with a faculty advisor for a minimum of 18 credit hours from the RADT upper division courses. Courses required for certification cannot be used to fulfill minor requirements.

*Students may select any approved minor in consultation with a faculty advisor and the completion of an academic contract. A minor is not required for the Radiology Assistant (RA) program.*

## Radiologic Sciences Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Respiratory Therapy

**Department Chair:** Paul Eberle, PhD, RRT

**Medical Director:** Christopher Anderson, M.D.

**Location:** Marriott Allied Health Building, Rm 309

**Telephone Contact:** Alisa Kimball, 801-626-7071

**Professor:** Paul Eberle; **Associate Professors:** Janelle Gardiner, Mich Oki, Sharri Vasas

Respiratory care professionals are actively involved, as members of the health care team, in the diagnosis, treatment, management, education, and long-term care of patients with cardiopulmonary problems. These patients may be in the newborn nursery, surgical/medical/rehabilitation units, outpatient clinics, Emergency Room, or cardiac/shock-trauma/burn/neurologic intensive care units. Respiratory Care Practitioners [RCPs] are employed in both acute and long-term care hospitals, skilled nursing facilities, and home health agencies.

Licensed RCPs perform therapeutic and diagnostic procedures under the direction of a physician. Respiratory care practitioners are competent in basic patient care and assessment, medical gas administration, aerosol and humidity therapy, medication administration, hyperinflation techniques, bronchopulmonary drainage and percussion, mechanical ventilation, airway management, advanced cardiac life support, pulmonary function studies, and blood gas sampling and analysis. Patient education, smoking cessation/nicotine intervention, and health promotion are also included in the RCP scope of practice.

The respiratory therapy program follows a career-ladder approach from the pre-professional level through a Bachelor of Science degree. The pre-professional level requires two academic years, leads to an Associate of Applied Science degree, and qualifies the student for the Respiratory Therapy Bachelor of Science program providing eligibility to national credentialing and licensure to practice respiratory care (RCP). Acceptance to the pre-professional level requires program completion through the Bachelor of Science degree level.

### Licensure

Applicants who have been convicted of a felony, treated for serious mental illness or substance abuse should discuss their eligibility status with the Utah Department of Professional Licensing. Acceptance to the respiratory therapy program does

not assure eligibility for a RCP license. The Utah Department of Professional Licensing makes final decisions on issuance of professional licensure. Any student that is convicted of a felony will be dismissed from the program.

### **Accreditation**

The Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244.

## **Respiratory Therapy, Pre-Professional (AAS)**

- **Program Prerequisites:** Completion of all prerequisite courses with a grade of "C" or better ("C-" or CR are not acceptable in prerequisite courses). In addition, students must complete an application/selection process, which requires prior completion of current CPR certification at the BLS-C level (also see Admissions Requirements below).
- **Grade Requirements:** A grade of "C" or better in each course is required by this program (a "C-" is not acceptable). CR/NC courses in this program require a "C" or better to receive CR. A cumulative GPA of 2.5 is required to enter the program.
- **Credit Hour Requirements:** A total of 60-67 credit hours is required for graduation; 38 of these are required REST courses and 18 are required general education courses.

### **Advisement**

Students may contact an advisor in the Dr. Ezekiel R. Dumke College of Health Professions' Admissions & Advisement Office (Marriott Allied Health Building, room 108, phone 801-626-6136, email [healthprofessions@weber.edu](mailto:healthprofessions@weber.edu)) for program information and an application.

### **Admissions Requirements**

Declare your program of study (see Enrollment Services and Information). Meet with a Dumke College of Health Professions advisor and then file a Program Application (at the Dr. Ezekiel R. Dumke College of Health Professions Admissions Office, MH 108 on or before February 1). Program selection criteria includes cumulative GPA, prerequisite GPA, completion of application process, previous healthcare experience, and formal Selection Committee interview. Complete all prerequisite courses with "C" (2.0) or better.

Admission requirements include the following:

- Graduation from high school or equivalent program
- Cumulative grade point average of 2.5
- Complete FBI criminal background check or designated background check. Any student that is convicted of a felony will be dismissed from the program.
- Admission to Weber State University
- Completed application to Associate of Applied Science Degree and payment of the \$25 application fee

### **Prerequisite Courses**

- REST 1540 - Survey of Respiratory Therapy **(1)**
- MATH 1010 - Intermediate Algebra **(4)** (*with a grade of "C" or better*) or 23 or above on the ACT
- ENGL 1010 EN - Introductory College Writing **(3)**
- COMM 1020 HU - Principles of Public Speaking **(3)** or

- COMM 2110 HU - Interpersonal and Small Group Communication **(3)**
- PSY 1010 SS - Introductory Psychology **(3)** or
- PSY 2000 SS - The Psychology of Human Relationships **(3)**
- HTHS 2230 - Introductory Pathophysiology **(3)**
- REST 1560 - Multi-Skilled Health Care Worker **(1)** or *CNA, military medic, or EMT course either*
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **(4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **(4)** or *introductory level courses in the three basic sciences:*
- CHEM 1010 PS - Introductory Chemistry **(3)**
- MICR 1113 LS - Introductory Microbiology **(3)**
- ZOOL 2200 LS - Human Physiology **(4)**

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. The following general education courses will fulfill both general education and program requirements: PSY 1010 or PSY SS2200, ENGL 1010, COMM 1020 or COMM 2110, and **either** HTHS 1110/HTHS 1111 **or** introductory-level courses in some of the basic sciences (human biology, chemistry and microbiology). One additional course in a physical or life science is required for students taking the HTHS option.

*Consult with Academic Advising or Dr. Ezekiel R. Dumke College of Health Professions Admission Advisor regarding general education guidelines.*

## Major Course Requirements for AAS Degree

### Respiratory Therapy Courses Required (38 credit hours)

- REST 1540 - Survey of Respiratory Therapy **Credits: (1)**
- REST 1560 - Multi-Skilled Health Care Worker **Credits: (1)**
- REST 2140 - Introduction to Basic Therapeutic Modalities Lab **Credits: (3)**
- REST 2160 - Equipment Management Lab **Credits: (3)**
- REST 2210 - Elementary Cardiopulmonary Anatomy and Physiology **Credits: (3)**
- REST 2230 - Cardiopulmonary Pathophysiology **Credits: (2)**
- REST 2250 - Basic Patient Assessment **Credits: (2)**
- REST 2270 - Application of Cardiopulmonary Diagnostics **Credits: (4)**
- REST 2300 - Basic Modalities in Respiratory Care I **Credits: (3)**
- REST 2310 - Basic Modalities in Respiratory Care II **Credits: (3)**
- REST 2320 - Essentials of Mechanical Ventilation **Credits: (2)**
- REST 2330 - Entry Level Respiratory Therapy Review **Credits: (1)**
- REST 2520 - Principles of Pharmacology **Credits: (2)**
- REST 2700 - Clinical Applications **Credits: (4)**
- REST 2710 - Specialty Clinical Experiences **Credits: (1)**
- REST 2720 - Clinical Applications **Credits: (3)**

# Respiratory Therapy (BS)

- **Program Prerequisite:** Completion of Respiratory Therapy, Pre-Professional (AAS) degree or Certificate of Completion from an accredited, respiratory therapy program (R.R.T. eligible) or complete CRT SAE with cut score of 95/140 following pre-professional year.
- **Grade Requirements:** A grade of "C" or better in each course required by this program (a "C-" is not acceptable). CR/NC courses in this program require a "C" or better to receive CR. A GPA of 2.75 is required to enter the program.
- **Credit Hour Requirements:** A total of 120 credits are required for graduation (includes AAS degree requirements); 67 of these are REST credits. A total of 40 upper division credit hours are required (courses numbered 3000 and above); 29 of these are required REST credits. Departmental standards are applied to independent projects and directed readings.

## Advisement

All respiratory therapy students are required to meet with a faculty advisor before beginning bachelor's degree courses, and at least annually after entering program, and complete an academic contract specifying major courses, approved electives, and graduation requirements. Call 801-626-7071 for more information or to schedule an appointment.

*During June, July and August, students may contact an advisor in the Dr. Ezekiel R. Dumke College of Health Professions' Admissions & Advisement Office (Marriott Allied Health Building, room 108, phone 801-626-6136, email [healthprofessions@weber.edu](mailto:healthprofessions@weber.edu)) for program information and an application, if a faculty member of the Respiratory Therapy Department is not available.*

## Admissions Requirements

Declare your program of study (see Enrollment Services and Information). Complete Respiratory Therapy, Pre-Professional (AAS) degree requirements (or provide Certificate of Completion from an accredited, respiratory therapy program). Meet with faculty advisor and establish an academic contract.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. Of the Quantitative Literacy courses [MATH 1030, MATH 1040, or MATH 1050], MATH 1030 QL - Contemporary Mathematics is the preferred course for program completion. The following general education courses will fulfill both general education and program requirements: PSY 1010 or PSY SS2200, ENGL 1010, COMM 1020 or COMM 2110, and either HTHS 1110/HTHS 1111 or introductory-level courses in some of the basic sciences (human biology, chemistry and microbiology).

*Consult with department advisor or Dr. Ezekiel R. Dumke College of Health Professions Admission Advisor regarding general education guidelines.*

## Major Course Requirements for BS Degree

*Complete the requirements for the AAS degree or equivalent in addition to the courses listed below.*

### Respiratory Therapy Courses Required (29 credit hours minimum)

- REST 3210 - Advanced Cardiopulmonary Anatomy and Physiology **Credits: (2)**
- REST 3220 - Advanced Cardiopulmonary Pathophysiology **Credits: (2)**
- REST 3230 - Advanced Cardiopulmonary Technology **Credits: (2)**
- REST 3260 - Neonatal/Pediatric Respiratory Care **Credits: (2)**
- REST 3270 - Adult Critical Care **Credits: (2)**
- REST 3280 - Patient Care Continuum/ Quality Management **Credits: (3)**

- REST 3760 - Clinical Applications of Neonatal/Pediatric Respiratory Care **Credits: (4)**
- REST 3770 - Clinical Applications of Adult Critical Care **Credits: (4)**
- REST 3780 - Clinical Applications **Credits: (2)**
- REST 3900 - Clinical Simulation Seminar **Credits: (3)**
- REST 4610 - Advanced Patient Assessment **Credits: (1-2)**
- REST 4620 - Health Promotion **Credits: (1-2)**
- REST 4630 - Continuous Quality Improvement **Credits: (1-2)** or
- HIM 3300 - Introduction to Quality Improvement in Health Care **Credits: (3)**

### Upper Division Electives (9 credit hours minimum)

*In addition to the 29 REST credit hours required above, a minimum of 9 credit hours must be selected from the following upper division electives. Departmental standards are developed which specify content of certain projects; remaining credits are "elective" with content approved by program advisor. Other upper division credits will be considered upon approval of program advisor. A total of 40 upper division credit hours is required.*

- REST 3500 - Survey of Polysomnography **Credits: (1)**
- REST 3501 - Anatomy and Physiology of Sleep **Credits: (3)**
- REST 3502 - Introduction to Sleep Disorders **Credits: (2)**
- REST 3503 - Instrumentation and Computers in Polysomnography **Credits: (2)**
- REST 3505 - Therapeutics of Managing Sleep Apnea **Credits: (2)**
- REST 4800 - Independent Projects **Credits: (1-6)**
- REST 4830 - Directed Readings **Credits: (1-3)**
- REST 4850 - Study Abroad **Credits: (1-6)**
- REST 4990 - Senior Seminar **Credits: (2)**
- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3230 - Health Communication **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)**
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)**

## Respiratory Therapy (BIS)

- **Grade Requirements:** A grade of "C" or better in each course is required by this program (a "C-" is not acceptable). CR/NC courses in this program require a "C" or better to receive CR. A cumulative GPA of 2.57 is required for graduation.
- **Credit Hour Requirements:** A minimum of 18 credit hours, all upper division REST courses, are required.

### Course Requirements for BIS Concentration

*Select 18 credit hours of upper division REST courses in consultation with an advisor.*

*Refer to the Respiratory Therapy (BIS) Bachelor of Integrated Studies section of this catalog for BIS degree requirements.*

# Respiratory Therapy Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## College of Science

Dr. David Matty, Dean  
Dr. Barb Trask, Associate Dean

The College of Science provides quality education in the natural sciences and mathematics. The college offers majors and minors in seven departments (Botany, Chemistry, Geosciences, Mathematics, Microbiology, Physics, and Zoology). The college also supports students through its Developmental Mathematics Program. The departments and programs of the College of Science support professional and graduate school preparatory programs, and contribute significantly to the general education of students by improving scientific understanding of the natural world and quantitative literacy. Education is provided through formal classes, laboratory and field experiences, and undergraduate research projects. Student learning is also supported by departmental clubs and professional preparatory organizations. The college promotes science and mathematics teaching through the Center for Science and Mathematics Education, and community outreach through such facilities as the Layton P. Ott Planetarium and Museum of Natural Science.

**Location:** Tracy Hall Science Center, Room 470

**Telephone:** 801-626-6159

Department Chairs/Directors

Botany: Dr. Suzanne Harley	801-626-6174
Chemistry: Dr. Laine Berghout	801-626-6952
Developmental Mathematics Program: Dr. Kathryn Van Wagoner	801-626-7478
Geosciences: Dr. Richard Ford	801-626-7139
Mathematics: Dr. Paul Talaga	801-626-6095
Microbiology: Dr. Matthew Domek	801-626-6949
Physics: Dr. Colin Inglefield	801-626-6163
Zoology: Dr. Chris Hoagstrom	801-626-7486

**Science and Mathematics Programs**, offered as both majors and minors allow students to pursue in-depth study in the science discipline of one's choice. They also allow one to experience a more diverse education through broader study outside of the sciences. Graduates in the sciences and mathematics are able to find employment in a variety of entry-level positions directly related to their major discipline. They are also able to move into graduate school or professional programs. Our graduates possess the broad liberal arts educational background and depth of expertise for significant career ladder movement in their discipline fields. They also have the breadth of knowledge and skills to exercise unique job mobility to become entrepreneurs and pioneer new career directions.

**Pre-professional Programs** are designed for students interested in specific professional careers requiring additional education at professional schools elsewhere. Weber State University has an excellent record of graduates being admitted into a wide range of professional school programs.

**Professional Teacher Preparation Programs** are designed to meet the needs of students seeking certification to teach in elementary and secondary schools. The Center for Science & Mathematics Education coordinates with the Jerry and Vickie Moyes College of Education to provide opportunities for students to investigate science teaching careers. There are many excellent career opportunities for graduates with teaching majors or minors in science or mathematics.

**Technical Education Programs** are offered to meet the needs of individuals seeking vocational and technical preparation required for skilled job-entry or reentry employment, as well as for career updating and occupational enhancement. Currently Associate of Science and Associate of Applied Science degrees are offered for Biotechnician training and Chemical Technician training, respectively, and Institutional Certificates are offered for Biotechnician training, Chemical Technician training, and Geomatics.

Students planning to major or minor in the College of Science should contact the appropriate department for assistance in planning their program. The details of the requirements for all majors and minors are listed within the respective departments. Students completing the teaching majors, minors, or emphasis will also work closely with the Center for Science & Mathematics Education and the Jerry and Vickie Moyes College of Education.

Center for Science & Mathematics Education

**Director:** Dr. Jennifer Claesgens

**Location:** Tracy Hall Science Center, Room 205

**Telephone:** 801-626-6160

**Web Site:** [weber.edu/sciencecenter](http://weber.edu/sciencecenter)

Effective science and mathematics education of the citizenry requires rich and active experiences with the concepts and methods of science and math throughout life. To this end the Center for Science & Mathematics Education seeks to share the resources and expertise of the faculties at Weber State University with the surrounding schools and community.

The mission of the Center for Science and Math Education is to:

- To provide training and advisement for pre-service secondary education science and mathematics teaching majors.

- To provide coordination for science and mathematics education at Weber State University, liaison with the WSU Department of Teacher Education, the Utah State Office of Education and the local school districts.

- To provide in-service training and support for science and mathematics teachers.

- To provide opportunities and support for K-12 students related to science and mathematics.

The Center for Science & Mathematics Education also administers and advises students in the Biology Composite Teaching (BS) and the Biology Teaching Minor.

**See Mathematics Education (MTHE) under Course Descriptions.**

**Science Education courses are listed following Master of Education (MED) under Course Descriptions.**

Chemical Technology Center

**Director:** Dr. Edward B. Walker

**Location:** Tracy Hall Science Center, Room 255P

**Telephone:** 801-626-6162

**Email:** [ewalker@weber.edu](mailto:ewalker@weber.edu)

The mission of the Chemical Technology Center is to enhance the learning environment at Weber State University. The Center involves students and faculty in applied research activities that concomitantly provide extra-curricular learning opportunities, service to the community, and productive relationships with local and regional industries.

Museum of Natural Science

**Location:** Lind Lecture Hall 104

**Telephone:** 801-626-6653

The Museum of Natural Science is an educational facility available to students in elementary and secondary schools, college students, and members of the community. Teachers wishing instructional materials and/or activities concerning the Museum's exhibits should contact the Director of the Museum of Natural Science, 801-626-6653. The Museum is open to the public from 8 a.m. to 5 p.m. Monday through Friday, except on holidays. Student group visits are encouraged in the afternoon.

Layton P. Ott Planetarium

**Director:** Dr. Stacy Palen, Tracy Hall Science Center, Room 328

**Web Site:** [weber.edu/planetarium](http://weber.edu/planetarium)

The Planetarium, featuring a 30-foot hemispherical dome, is used for instruction in undergraduate astronomy classes. It is also a science education facility featuring programs of interest to elementary students, secondary students, and the general public. For the general public, a program featuring some topic of current interest in astronomy is given one evening a week. Any teacher wishing instructional materials or wanting to set up an appointment for a class visit should contact the Director of the Planetarium, 801-626-6871.

#### Pre-Professional Programs

*For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.*

Students pursuing one of the following programs should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

#### Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

<u>Emphasis</u>	<u>Advisor</u>	<u>Room</u>	<u>Telephone</u>
Pre-Chiropractic	Dr. Barb Trask	TY 407E	801-626-6169
Pre-Dentistry	Dr. Matthew Domek	TY 450H	801-626-6950
Pre-Medical	Dr. Barb Trask	TY 407E	801-626-6169
Pre-Optometry	Dr. Barb Trask	TY 407E	801-626-6169
Pre-Pharmacy	Dr. Don Davies	TY 255K	801-626-6224
Pre-Occupational Therapy	Ms. Sherrie Jensen	SW 102L	801-626-7425
Pre-Physical Therapy	Dr. Justin Rigby	SW 307J	801-626-6526
Pre-Physician Assistant	Dr. Karen Nakaoka	TY 450F	801-626-7509
Pre-Podiatry	Dr. Barb Trask	TY 407E	801-626-6169
Pre-Veterinary Medicine	Dr. Ron A. Meyers	TY 407	801-626-6170

# Biotechnician (AS)

**Location:** Science Lab, SL402

**Telephone:** 801-626-6165

**Grade Requirements:** Cumulative GPA of 2.00 or higher.

**Credit Hour Requirements:** Total of 62 credit hours are required - 38 of these are required within the program.

## Advisement

Students should meet with the program advisor; call the Department of Zoology secretary (801-626-6165) for information.

## General Education

Refer to Degree Requirements for Associate of Science requirements. These should include ECON 1740, HIST 1700, or POLS 1100. The following courses required for the Biotechnician program will satisfy the quantitative core and the life and physical sciences portion of the general education requirements: MATH 1050, CHEM 1210, PHYS 1010, and MICR 2054.

*Students should complete the AS program in two years and take the laboratory intensive courses for the Biotechnician Certificate of Completion in their third year.*

## Major Course Requirements for AS Degree

### Courses Required (37 credit hours)

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

MICR 3053 - Microbiological Procedures **Credits: (3)**

BTNY 2104 - Plant Form and Function **Credits: (4)** or

BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**

ZOOL 1110 LS - Principles of Zoology **Credits: (4)**

ZOOL 2220 - Diversity of Animals **Credits: (4)**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

PHYS 1010 PS - Elementary Physics **Credits: (3)**

BTNY 2600 - Laboratory Safety **Credits: (1)** or

MICR 2600 - Laboratory Safety **Credits: (1)**

MATH 1050 QL - College Algebra **Credits: (4)**

# Biotechnician Certificate of Completion

**Location:** Science Lab, SL402

**Telephone:** 801-626-6165

**Grade Requirements:** Cumulative GPA of 2.00 or higher.

**Credit Hour Requirements:** 30 credit hours in addition to the requirements for the Biotechnician (AS).

**Gainful Employment Disclosure**

## Advisement

Students should meet with the program advisor; call the Department of Zoology secretary (801-626-6165) for information.

## Course Requirements for Institutional Certificate

*Thirty (30) credit hours are to be taken in addition to those courses required for the Biotechnician (AS).*

### Required Courses (22 credit hours)

BTNY 3204 - Plant Physiology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and

CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

MICR 4154 - Microbial Genetics **Credits: (4)** or

ZOOL 4300 - Molecular Genetics **Credits: (4)**

### Electives (select 8 credit hours)

CHEM 3000 - Quantitative Analysis **Credits: (4)**

CHEM 3050 - Instrumental Analysis **Credits: (4)**

CHEM 3070 - Biochemistry I **Credits: (3)**

MICR 3254 - Immunology **Credits: (4)**

MICR 4252 - Cell Culture **Credits: (2)**

MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**

MICR 4554 - Virology **Credits: (4)**

BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**

BTNY 3514 - Algology **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**

ZOOL 4120 - Histology **Credits: (4)**

ZOOL 4220 - Endocrinology **Credits: (4)** or

ZOOL 4210 - Advanced Human Physiology **Credits: (4)**

ZOOL 4500 - Parasitology **Credits: (4)** or

MICR 3305 - Medical Microbiology **Credits: (5)**

## Pre-Chiropractic Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

### Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Chiropractic Advisor:** Dr. Barbara Trask

**Location:** SL 407

**Telephone:** 801-626-7755

### Courses

Use pre-medical requirements and follow the catalog from the chiropractic school of your choosing.

## Pre-Dentistry Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

### Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Dentistry Advisor:** Dr. Matthew Domek

**Location:** SL 307M

**Telephone:** 801-626-6950

### Courses Required (57-61 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** and  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

MATH 1050 QL - College Algebra **Credits: (4)**

MATH 1060 - Trigonometry **Credits: (3)**

MATH 1210 - Calculus I **Credits: (4)** and

MATH 1220 - Calculus II **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** or

PHYS 2020 - College Physics II **Credits: (5)**

ZOOL 1110 LS - Principles of Zoology **Credits: (4)**

ZOOL 2220 - Diversity of Animals **Credits: (4)** (Zoology majors)

ZOOL 2100 - Human Anatomy **Credits: (4)**

ZOOL 2200 LS - Human Physiology **Credits: (4)**

## **Recommended Electives (none required)**

ECON 1010 SS - Economics as a Social Science **Credits: (3)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

MICR 3254 - Immunology **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**

ZOOL 4120 - Histology **Credits: (4)**

ZOOL 4210 - Advanced Human Physiology **Credits: (4)**

ZOOL 4500 - Parasitology **Credits: (4)**

## **Pre-Medical Program, The Dr. Ezekiel R. Dumke Family**

The goal of the pre-medical program is to prepare students for a national competitive examination (the MCAT) and for medical school admission and courses. The pre-medical program is compatible with a variety of majors. Pre-medical classes and/or emphases exist within several departments of the College of Science.

*For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.*

*Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.*

### **Advisement**

*Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.*

**Pre-Medical Advisor:** Dr. Jason Fritzler

**Location:** SL 305M

**Telephone:** 801-626-7758

## Courses Required (65-71 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** and  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

ENGL 1010 EN - Introductory College Writing **Credits: (3)** and  
ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

MATH 1050 QL - College Algebra **Credits: (4)** and  
MATH 1060 - Trigonometry **Credits: (3)**

**or**

MATH 1080 QL - Pre-calculus **Credits: (5)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

ZOOL 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOL 2220 - Diversity of Animals **Credits: (4)** (Zoology majors)  
ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**  
ZOOL 3200 - Cell Biology **Credits: (4)**  
ZOOL 3300 - Genetics **Credits: (4)**

Note:

*AP or CLEP credits in English or science courses are not acceptable to medical schools.*

## Additional Recommended Course Electives

*Refer to the pre-medical emphases in the departments of Zoology, Chemistry and Microbiology, and consult with advisors.*

CHEM 3070 - Biochemistry I **Credits: (3)**  
MICR 3254 - Immunology **Credits: (4)**  
MICR 3305 - Medical Microbiology **Credits: (5)**  
MICR 4252 - Cell Culture **Credits: (2)**  
MICR 4554 - Virology **Credits: (4)**  
ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
ZOOL 4100 - Vertebrate Embryology **Credits: (4)**  
ZOOL 4120 - Histology **Credits: (4)**  
ZOOL 4210 - Advanced Human Physiology **Credits: (4)**

# Pre-Optometry Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

## Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Optometry Advisor:** Dr. Barbara Trask

**Location:** SL 407

**Telephone:** 801-626-7755

## Courses Required (77-81 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** and  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

ENGL 1010 EN - Introductory College Writing **Credits: (3)** and  
ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

MATH 1040 QL - Introduction to Statistics **Credits: (3)**  
MATH 1050 QL - College Algebra **Credits: (4)**  
MATH 1060 - Trigonometry **Credits: (3)**

MATH 1020 - Fundamentals of Geometry **Credits: (3)** and  
MATH 1220 - Calculus II **Credits: (4)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2020 - College Physics II **Credits: (5)**

PSY 1010 SS - Introductory Psychology **Credits: (3)**  
ZOOLOGY 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOLOGY 2220 - Diversity of Animals **Credits: (4)** (Zoology majors)  
ZOOLOGY 2100 - Human Anatomy **Credits: (4)**  
ZOOLOGY 2200 LS - Human Physiology **Credits: (4)**  
ZOOLOGY 3200 - Cell Biology **Credits: (4)**

## Electives

Select courses as needed to finish requirements for graduation.

# Pre-Pharmacy Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

## Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Pharmacy Advisor:** Dr. Don Davies

**Location:** SL 608

**Telephone:** 801-626-6224

## Courses Required (62 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** and  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

ENGL 1010 EN - Introductory College Writing **Credits: (3)** and  
ENGL 2010 EN - Intermediate College Writing **Credits: (3)**

ENGL 2100 - Technical Writing **Credits: (3)**  
MATH 1050 QL - College Algebra **Credits: (4)**  
MATH 1060 - Trigonometry **Credits: (3)**

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2020 - College Physics II **Credits: (5)**

ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**

## Electives

Electives should include general education graduation requirements.

More advanced classes in the sciences may be taken at the option of the student.

# Pre-Physical Therapy Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science or in Athletic Therapy (BS). Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

## Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Physical Therapy Advisor:** Ms. Sherrie Jensen

**Location:** SW 102L

**Telephone:** 801-626-7425

## Courses Required (60-64 credit hours)

CHEM 1110 PS - Elementary Chemistry **Credits: (5)** and  
CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**

**or**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

ENGL 1010 EN - Introductory College Writing **Credits: (3)**  
ENGL 3100 - Professional and Technical Writing **Credits: (3)**  
HLTH 1300 - First Aid: Responding to Emergencies **Credits: (2)**

MATH 1040 QL - Introduction to Statistics **Credits: (3)** or  
PSY 3600 - Statistics in Psychology **Credits: (3)** or  
SOC 3600 - Social Statistics **Credits: (3)**

MATH 1060 - Trigonometry **Credits: (3)**  
MATH 1210 - Calculus I **Credits: (4)**  
MICR 2054 LS - Principles of Microbiology **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

PSY 1010 SS - Introductory Psychology **Credits: (3)**  
PSY 3010 - Abnormal Psychology **Credits: (3)**  
ZOO 1110 LS - Principles of Zoology **Credits: (4)**  
ZOO 2220 - Diversity of Animals **Credits: (4)** (Zoology majors)  
ZOO 2100 - Human Anatomy **Credits: (4)**  
ZOO 2200 LS - Human Physiology **Credits: (4)**

## Note:

\*(Zoology majors)

Specific requirements vary from one program to another. Please check specific prerequisite course requirements for particular physical therapy degree programs.

## Pre-Physician Assistant Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

### Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Physician Assistant Advisor:** Dr. Karen Nakaoka

**Location:** SL 306M

**Telephone:** 801-626-7509

### Courses

Use pre-medical requirements and follow the catalog from the physician assistant school of your choosing.

## Pre-Podiatry Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

### Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Podiatry Advisor:** Dr. Barbara Trask

**Location:** SL 407

**Telephone:** 801-626-7755

### Courses

Use pre-medical requirements and follow the catalog from the podiatry school of your choosing.

# Pre-Veterinary Medicine Program

For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms) or call the Pre-Medical Professional Programs office 801-626-7755.

Students pursuing this program should satisfy the pre-professional requirements while completing a bachelor's degree within the College of Science. Students should work closely with both their pre-professional advisor and their academic major advisor. Since course loads are typically heavy, and requirements and application procedures vary among post-graduate programs, students should plan their academic strategies early and with full information.

## Advisement

Students should be familiar with requirements in the Weber State catalog and consult with the pre-professional advisor and an advisor in their major department.

**Pre-Veterinary Advisor:** Dr. Ron A Meyers

**Location:** SL 40

**Email:** [rmeyers@weber.edu](mailto:rmeyers@weber.edu)

**Telephone:** 801-626-6170

## Courses Required (79 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** and  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

CHEM 3070 - Biochemistry I **Credits: (3)** \*  
COMM 1020 HU - Principles of Public Speaking **Credits: (3)**  
COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**

MATH 1040 QL - Introduction to Statistics **Credits: (3)** or  
PSY 3600 - Statistics in Psychology **Credits: (3)**

MATH 1050 QL - College Algebra **Credits: (4)**  
MATH 1080 QL - Pre-calculus **Credits: (5)** \*

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)** \*

ZOOL 1110 LS - Principles of Zoology **Credits: (4)** and  
ZOOL 2220 - Diversity of Animals **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**  
ZOOL 3300 - Genetics **Credits: (4)**  
ZOOL 3450 - Ecology **Credits: (4)**

ZOOL 3600 - Comparative Physiology **Credits: (4)** or  
ZOOL 4210 - Advanced Human Physiology **Credits: (4)**

ZOOL 3720 - Evolution **Credits: (3)**

ZOOL 4990 - Seminar **Credits: (1)**

Note:

\*Students should speak with the Pre-Vet advisor to check specific veterinary school requirements.

## **Recommended Electives (none required)**

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

MICR 3254 - Immunology **Credits: (4)**  
ZOOL 3600 - Comparative Physiology **Credits: (4)**  
ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
ZOOL 4100 - Vertebrate Embryology **Credits: (4)**  
ZOOL 4120 - Histology **Credits: (4)**  
ZOOL 4500 - Parasitology **Credits: (4)**

# **Department of Botany**

**Department Chair:** Suzanne Harley

**Location:** Tracy Hall Science Center, Room 402M

**Telephone:** 801-626-6174

**Professors:** Stephen Clark, Suzanne Harley, Barbara Wachocki; **Assistant Professors:** Bridget Hilbig, Heather Root, Katharina Schramm

While plants have intrigued and delighted people for thousands of years, they still remain undervalued and too little appreciated. We somehow manage to see a faint connection between plants and our basic needs of food, shelter, clothing, and energy, but only in a rather limited way. Remote connections are made, if any at all, between the history of exploration; present-day social, economic, and political conditions; and access to plants and plant products. Interest and understanding of plants is becoming much more intense. During the last few decades we have seen an unprecedented increase in the variety of plants and plant products available in our markets as the popularity of ethnic cuisines has grown. Also, worldwide, people are becoming increasingly aware of sound nutrition and the role plants play in our general health. We now appreciate plants as reservoirs of untold numbers of pharmaceuticals important in our war on diseases. These interests are stimulating our collective concerns about understanding the past, present, and future uses of plants.

Recently we have begun to address our most serious problems, viz the loss of ecosystem integrity and habitats for animals dependent upon vegetation. This we have done through increased understanding of plants. We now know how valuable plants are in maintaining the health and stability of the global environment and that in its survival is the survival of the human species.

Botany is the study of all aspects of plants, including systematics, morphology, diversity, metabolism, and ecology. Through a study of plants, students gain an understanding and an appreciation of life at the cellular, organismal, population, and community levels of organization. The study of Botany can lead to a variety of professional careers, including soil science, forestry, range management, biotechnology, plant breeding, horticulture, marine biology, environmental science, natural medicine, and teaching.

The Botany Department at Weber State University offers undergraduate training in all areas of botany. Individuals who choose to study botany fall into three broad groups. In order to serve each group effectively, the Botany Department offers a Botany Major with three tracks. Track A is designed to prepare students for careers in laboratory research or post-baccalaureate studies at graduate or professional schools. Track B is designed to prepare students for field-related

careers such as ecology, environmental science, and natural resource management. Track C, with greater flexibility through more elective courses, is designed to meet the needs of students who wish to be more broadly trained because of general interests in Plant Biology or of those students who enter the program with an Associate of Science Degree.

Botany majors in all tracks develop a portfolio. The portfolio is a multidimensional collection of both student and faculty selected materials that are both developmental and representational in nature. Within the portfolio, students can document their acquisition of a variety of skills, including critical thinking, scientific reasoning, writing, speaking, and effective arguing. The portfolio is used for assessment purposes in addition to serving as an incentive to the student for developing good habits in assembling and organizing materials of relevance to themselves and others, such as personnel managers or graduate school selection committees. The department has also developed an undergraduate thesis program which provides a desirable capstone experience for many of the Botany majors.

The Botany Department cooperates in offering a Biology Composite Teaching Major; this program prepares individuals who are interested in teaching Biology at the secondary school level (described under the Department of Zoology in this catalog).

The Botany Department meets the needs of students interested in pursuing post-baccalaureate professional degrees and certificates at schools of natural medicine, botanical medicine, naturopathy, and Chinese medicine through Option 2 of the Track A Botany Major, Pre-Natural Medicine. The department also serves students who are interested in baccalaureate-level professional programs in Agriculture, Horticulture, Forestry, and Range Management. After completing a Pre-Agriculture, Pre-Horticulture, Pre-Forestry, or Pre-Range Management program at Weber State, a student must continue his or her education at another institution in order to obtain a baccalaureate degree in one of these fields. The catalog of the school to which the student plans to transfer should be consulted as a guide in registering for courses at Weber State.

The Botany Minor provides valuable support for students majoring in a variety of other fields, including anthropology, geosciences, and zoology.

### **Herbarium**

The Herbarium of Weber State University is housed in the Tracy Hall Science Center, room TY345. It contains more than 24,000 preserved plant specimens collected from Utah and the Western United States. This collection serves as an important reference for students, faculty, biologists, and all others who need to know the identity of plants, or learn something about their geographic distributions and ecological associations. It also serves as the repository of the plants collected for the Institute of American Indian Botany.

### **Institute of American Indian Botany**

The Institute is dedicated to the study of American Indian Botany and provides a place where all of those who have interest can learn, conduct research, teach, and preserve for generations yet to come, this segment of our great American heritage.

### **Biotechnician Training Program**

The Department of Botany participates with the Departments of Microbiology and Zoology in the Associate of Science degree and 3rd year Certificate in Biotechnician training for the biotechnology industry. This program is described earlier in this College of Science section of the catalog.

### **Biology Composite Teaching Major**

See the Department of Zoology in this catalog for program requirements.

### **Interdisciplinary Programs**

The Botany Department participates in the interdisciplinary Urban and Regional Planning Emphasis Program. Students who wish to enroll in this program should indicate their desire to do so with the program coordinator who will help them

work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of the catalog.)

## Pre-Agriculture and Pre-Horticulture

### Two Years (No Degree)

*Advisor: Dr. Barbara Wachocki*

**Location:** Science Lab, SL402M

**Telephone:** 801-626-7223

*Follow the catalog of a university which offers a degree program in these fields for general requirements, etc.*

### Course Requirements for Two Year Program

#### Botany Courses Required (24 credit hours)

- BTNY 2104 - Plant Form and Function **Credits: (4)**
- BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**
- BTNY 2121 - Career Planning for Botanists **Credits: (1)**
- BTNY 2303 - Ethnobotany **Credits: (3)**
- BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**
- BTNY 2600 - Laboratory Safety **Credits: (1)**

Select two of the following:

- BTNY 3204 - Plant Physiology **Credits: (4)**
- BTNY 3214 - Soils **Credits: (4)**
- BTNY 3454 - Plant Ecology **Credits: (4)**
- BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

#### Required Support Courses (24-26 credit hours)

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**
- GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**
- MATH 1050 QL - College Algebra **Credits: (4)** or  
MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)** or  
MATH 1040 QL - Introduction to Statistics **Credits: (3)**

Select One Group:

- MICR 2054 LS - Principles of Microbiology **Credits: (4)** and  
MICR 3484 - Environmental Microbiology **Credits: (4)**  
**or**- GEO 1115 - Physical Geology Lab **Credits: (1)** and  
GEO 1130 PS - Introduction to Meteorology **Credits: (3)** and  
GEO 2050 - Earth Materials **Credits: (4)**

# Pre-Forestry and Pre-Range Management

*Advisor: Dr. Barbara Wachocki*

**Location:** Science Lab, SL402M

**Telephone:** 801-626-7223

*Follow the catalog of a university which offers a degree program in these fields for general requirements, etc.*

## Course Requirements for Two Year Program

### Botany Courses Required (24 credit hours)

BTNY 2104 - Plant Form and Function **Credits: (4)**

BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**

BTNY 2121 - Career Planning for Botanists **Credits: (1)**

BTNY 2303 - Ethnobotany **Credits: (3)**

BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**

BTNY 2600 - Laboratory Safety **Credits: (1)**

Select two of the following:

BTNY 3214 - Soils **Credits: (4)**

BTNY 3454 - Plant Ecology **Credits: (4)**

BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

### Required Support Courses (37-39 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

ECON 1100 SS - Environmental Issues and Economic Policy **Credits: (3)**

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**

GEO 1115 - Physical Geology Lab **Credits: (1)**

GEO 1130 PS - Introduction to Meteorology **Credits: (3)**

GEO 2050 - Earth Materials **Credits: (4)**

MATH 1050 QL - College Algebra **Credits: (4)** or

MATH 1080 QL - Pre-calculus **Credits: (5)** or

MATH 1210 - Calculus I **Credits: (4)** or

MATH 1040 QL - Introduction to Statistics **Credits: (3)**

PHYS 2010 PS - College Physics I **Credits: (5)** and

PHYS 2020 - College Physics II **Credits: (5)**

# Botany (BS)

**Program Prerequisite:** Not required.

**Minor:** A minor is required. Botany majors in Track A (Option 1 or Option 2) will meet the requirements for a minor in Chemistry .

**Grade Requirements:** An overall GPA of 2.00 in all courses required for this major. Also refer to the general grade requirements for graduation under Degree Requirements.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; required within the major are 91-96 credit hours for Track A Option 1 (*minor included*), 109-113 credit hours for Track A Option 2 (*minor included*), 67-88 credit hours for Track B (*minor not included*) and 70-85 credit hours for Track C (*minor not included*). A total of 40 upper division credit hours is required (courses numbered 3000 and above); required within the major are 29-38 upper division credit hours for Track A Option 1, 28-33 upper division credit hours for Track A Option 2, 25-39 upper division credit hours for Track B and 28-37 upper division credit hours for Track C.

## Advisement

Majors are encouraged to consult with their advisor each semester. Contact the Botany department (801-626-6174). (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

## General Education

Refer to pages Degree Requirements for Bachelor of Science requirements. The following courses required for the Botany major will also satisfy general education requirements:

Track A Option 1: BTNY 1403, CHEM 1210, MATH 1040 or MATH 1050 or MATH 1080, and PHYS 2010 or PHYS 2210.

Track A Option 2: CHEM 1210, COMM 1020, ECON 1740, ENGL 2010, MATH 1040 or MATH 1050, MICR 1153 or MICR 2054, PHYS 2010 or PHYS 2210, and PSY 1010.

Track B: BTNY 1403, CHEM 1050 or CHEM 1110 or CHEM 1210, GEO 1110 or GEOG 1000, MATH 1040 or MATH 1050, and PHYS 1010 or PHYS 2010 or PHYS 2210.

Track C: BTNY 1403, CHEM 1110 or CHEM 1210, MATH 1040 or MATH 1050 or MATH 1080, and PHYS 1010 or PHYS 2010 or PHYS 2210.

*All Botany majors are required to develop a portfolio. The portfolio requirements are explained in detail when a student takes BTNY 2121. The final evaluation of the portfolio takes place in BTNY 4980.*

## Major Course Requirements for BS Degree

Track A (Laboratory Emphasis or Pre-Professional)

*This program includes a minor in Chemistry*

Botany Core Courses Required (18-20 credit hours)

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** or  
BTNY 3403 - Environment Appreciation **Credits: (3)** \*

BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 2121 - Career Planning for Botanists **Credits: (1)**  
BTNY 2303 - Ethnobotany **Credits: (3)**  
BTNY 2600 - Laboratory Safety **Credits: (1)**

BTNY 4970 - Botany Thesis **Credits: (2)** or  
BTNY 4990 - Seminar in Botany **Credits: (1)**

BTNY 4980 - Portfolio Summative Assessment **Credits: (1)**

Note:

\* *Students selecting Option 2 should take BTNY 3403.*

Option 1 (Laboratory Emphasis or Graduate School Preparation)

Additional Botany Courses Required (11 credit hours)

BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3303 - Plant Genetics **Credits: (3)**

Elective Courses (16 credit hours minimum)

BTNY 2203 - Home and Garden Plants **Credits: (3)**  
BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**  
BTNY 3153 - Biology of the Plant Cell **Credits: (3)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**  
BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**  
BTNY 3643 - Intermountain Flora **Credits: (3)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**  
BTNY 4113 - Plant Evolution **Credits: (3)**  
BTNY 4252 - Cell Culture **Credits: (2)**  
BTNY 4750 - Topics in Botany **Credits: (1-5)**

BTNY 4800 - Individual Research **Credits: (2)** or  
BTNY 4850 - Thesis Research **Credits: (2)**

BTNY 4830 - Readings in Botany **Credits: (2)** or  
BTNY 4840 - Thesis Readings **Credits: (2)**

BTNY 4890 - Cooperative Work Experience **Credits: (1-6)**  
BTNY 4950 - Advanced Field Botany **Credits: (1-5)**  
MATH 3450 - Advanced Statistical Methods **Credits: (4)**

Required Support Courses (44-49 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)** and  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

CHEM 3000 - Quantitative Analysis **Credits: (4)** or  
CHEM 3070 - Biochemistry I **Credits: (3)**

MATH 1050 QL - College Algebra **Credits: (4)** and  
MATH 1060 - Trigonometry **Credits: (3)**

**or**

MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)** or  
MATH 1040 QL - Introduction to Statistics **Credits: (3)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

**or**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

Select two of the following:

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** or  
GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**  
ZOOL 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOL 2220 - Diversity of Animals **Credits: (4)**

Note:

*Calculus and Statistics are recommended.*

Option 2 (Pre-Natural Medicine)

Additional Botany Courses Required (14-16 credit hours)

BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

BTNY 3153 - Biology of the Plant Cell **Credits: (3)** or  
ZOOL 3200 - Cell Biology **Credits: (4)**

BTNY 3303 - Plant Genetics **Credits: (3)** or  
ZOOL 3300 - Genetics **Credits: (4)**

BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**

Elective Botany Courses (7 credit hours minimum)

BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**  
BTNY 3504 - Mycology **Credits: (4)**

BTNY 3514 - Algology **Credits: (4)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3643 - Intermountain Flora **Credits: (3)**  
BTNY 4113 - Plant Evolution **Credits: (3)**  
BTNY 4252 - Cell Culture **Credits: (2)**  
BTNY 4750 - Topics in Botany **Credits: (1-5)**

BTNY 4800 - Individual Research **Credits: (2)** or  
BTNY 4850 - Thesis Research **Credits: (2)**

BTNY 4830 - Readings in Botany **Credits: (2)** or  
BTNY 4840 - Thesis Readings **Credits: (2)**

BTNY 4890 - Cooperative Work Experience **Credits: (1-6)**  
BTNY 4950 - Advanced Field Botany **Credits: (1-5)**  
MATH 3450 - Advanced Statistical Methods **Credits: (4)**

Required Support Courses (66-68 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 3070 - Biochemistry I **Credits: (3)**  
COMM 1020 HU - Principles of Public Speaking **Credits: (3)**  
ECON 1740 AI - Economic History of the United States **Credits: (3)**  
ENGL 2010 EN - Intermediate College Writing **Credits: (3)**  
*prerequisite is ENGL 1010 Introductory College Writing (3) or equivalent*

MATH 1040 QL - Introduction to Statistics **Credits: (3)** or  
MATH 1050 QL - College Algebra **Credits: (4)**

MATH 1060 - Trigonometry **Credits: (3)**

MICR 1153 LS - Elementary Public Health **Credits: (3)** or  
MICR 2054 LS - Principles of Microbiology **Credits: (4)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

**or**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

PSY 1010 SS - Introductory Psychology **Credits: (3)**

ZOOL 1110 LS - Principles of Zoology **Credits: (4)** and  
ZOOL 2220 - Diversity of Animals **Credits: (4)**

ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**

Suggested upper division courses include:

ZOOL 3720 - Evolution **Credits: (3)** (*this will complete a minor in Zoology*)

MICR 3203 - The Immune System in Health & Disease **Credits: (3)** or  
MICR 3254 - Immunology **Credits: (4)**

PHIL 3350 - Medical Ethics **Credits: (3)**

HIST 3350 - History and Philosophy of Science **Credits: (3)**

BSAD 3000 - Small Business Management **Credits: (3)** (*for non-business majors*)

## Track B (Field Botany Emphasis)

Botany Core Courses Required (18-20 credit hours)

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** or  
BTNY 3403 - Environment Appreciation **Credits: (3)**

BTNY 2104 - Plant Form and Function **Credits: (4)**

BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**

BTNY 2121 - Career Planning for Botanists **Credits: (1)**

BTNY 2303 - Ethnobotany **Credits: (3)**

BTNY 2600 - Laboratory Safety **Credits: (1)**

BTNY 4970 - Botany Thesis **Credits: (2)** or

BTNY 4990 - Seminar in Botany **Credits: (1)**

BTNY 4980 - Portfolio Summative Assessment **Credits: (1)**

Additional Botany Courses Required (17 credit hours)

BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**

BTNY 3214 - Soils **Credits: (4)**

BTNY 3454 - Plant Ecology **Credits: (4)**

BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

BTNY 4950 - Advanced Field Botany **Credits: (1-5)** (2 credit hours required)

Elective Botany Courses (11 credit hours minimum)

BTNY 2203 - Home and Garden Plants **Credits: (3)**

BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**

BTNY 3153 - Biology of the Plant Cell **Credits: (3)**

BTNY 3204 - Plant Physiology **Credits: (4)**

BTNY 3303 - Plant Genetics **Credits: (3)**

BTNY 3473 - Plant Geography **Credits: (3)**

BTNY 3504 - Mycology **Credits: (4)**

BTNY 3514 - Algology **Credits: (4)**

BTNY 3523 - Marine Biology **Credits: (3)**

BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**

BTNY 3643 - Intermountain Flora **Credits: (3)**

BTNY 4113 - Plant Evolution **Credits: (3)**

BTNY 4252 - Cell Culture **Credits: (2)**

BTNY 4750 - Topics in Botany **Credits: (1-5)**

BTNY 4800 - Individual Research **Credits: (2)** or

BTNY 4850 - Thesis Research **Credits: (2)**

BTNY 4830 - Readings in Botany **Credits: (2)** or  
BTNY 4840 - Thesis Readings **Credits: (2)**

BTNY 4890 - Cooperative Work Experience **Credits: (1-6)**  
MATH 3450 - Advanced Statistical Methods **Credits: (4)**

Required Support Courses (20-41 credit hours)

CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)** or  
CHEM 1110 PS - Elementary Chemistry **Credits: (5)** and  
CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)** or  
CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)** and  
CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** \* or  
GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

MATH 1040 QL - Introduction to Statistics **Credits: (3)** or  
MATH 1050 QL - College Algebra **Credits: (4)**

PHYS 1010 PS - Elementary Physics **Credits: (3)**

**or**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

**or**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

Select One Group:

MICR 2054 LS - Principles of Microbiology **Credits: (4)** and  
MICR 3484 - Environmental Microbiology **Credits: (4)**

**or**

GEO 1115 - Physical Geology Lab **Credits: (1)** and  
GEO 1220 - Historical Geology **Credits: (4)** and  
GEO 2050 - Earth Materials **Credits: (4)**

**or**

GEO 1115 - Physical Geology Lab **Credits: (1)** \* and  
GEO 3400 - Remote Sensing I **Credits: (4)** \* and  
GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)** \*

**or**

GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)** and  
GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**

**or**

ZOOL 1110 LS - Principles of Zoology **Credits: (4)** and  
ZOOL 2220 - Diversity of Animals **Credits: (4)**

Note:

*\*Students in Track B who are interested in pursuing an institutional certificate in Geomatics rather than a minor in Geospatial Analysis are encouraged to meet with the Botany department chair and the Geomatics advisor.*

## Track C (General Botany Emphasis)

### Botany Core Courses Required (15-17 credit hours)

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** or  
BTNY 3403 - Environment Appreciation **Credits: (3)**

BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 2121 - Career Planning for Botanists **Credits: (1)**  
BTNY 2600 - Laboratory Safety **Credits: (1)**

BTNY 4970 - Botany Thesis **Credits: (2)** or  
BTNY 4990 - Seminar in Botany **Credits: (1)**

BTNY 4980 - Portfolio Summative Assessment **Credits: (1)**

### Additional Botany Courses Required (11 credit hours)

BTNY 3303 - Plant Genetics **Credits: (3)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

### Elective Botany Courses (20 credit hours minimum; 6 lower division credit hours maximum)

BTNY 2203 - Home and Garden Plants **Credits: (3)**  
BTNY 2303 - Ethnobotany **Credits: (3)**  
BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**  
BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3153 - Biology of the Plant Cell **Credits: (3)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**  
BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**  
BTNY 3643 - Intermountain Flora **Credits: (3)**  
BTNY 4113 - Plant Evolution **Credits: (3)**  
BTNY 4252 - Cell Culture **Credits: (2)**  
BTNY 4750 - Topics in Botany **Credits: (1-5)** (2 credit hours required)

BTNY 4800 - Individual Research **Credits: (2)** or  
BTNY 4850 - Thesis Research **Credits: (2)**

BTNY 4830 - Readings in Botany **Credits: (2)** or  
BTNY 4840 - Thesis Readings **Credits: (2)**

BTNY 4890 - Cooperative Work Experience **Credits: (1-6)**  
BTNY 4950 - Advanced Field Botany **Credits: (1-5)**  
MATH 3450 - Advanced Statistical Methods **Credits: (4)**

Required Support Courses (23-38 credit hours)

CHEM 1110 PS - Elementary Chemistry **Credits: (5)** and  
CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**

**or**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)** and  
CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

MATH 1040 QL - Introduction to Statistics **Credits: (3)** or  
MATH 1050 QL - College Algebra **Credits: (4)** or  
MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)**

PHYS 1010 PS - Elementary Physics **Credits: (3)**

**or**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

**or**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

Select two of the following:

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** or  
GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**  
ZOO 1110 LS - Principles of Zoology **Credits: (4)**  
ZOO 2220 - Diversity of Animals **Credits: (4)**

## Botany (BIS)

### Botany (Minor/BIS)

**Grade Requirements:** An overall GPA of 2.00 in all courses used toward the minor.

**Credit Hour Requirements:** Minimum 19 credit hours in Botany courses.

#### Course Requirements for Minor/BIS

Botany Courses Required (9 credit hours)

BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 2600 - Laboratory Safety **Credits: (1)**

## Electives

*Select at least three courses from the list below for a minimum of 10 credit hours (3 lower division credit hours maximum).*

- BTNY 2203 - Home and Garden Plants **Credits: (3)**
- BTNY 2303 - Ethnobotany **Credits: (3)**
- BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**
- BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**
- BTNY 3153 - Biology of the Plant Cell **Credits: (3)**
- BTNY 3204 - Plant Physiology **Credits: (4)**
- BTNY 3214 - Soils **Credits: (4)**
- BTNY 3303 - Plant Genetics **Credits: (3)**
- BTNY 3454 - Plant Ecology **Credits: (4)**
- BTNY 3473 - Plant Geography **Credits: (3)**
- BTNY 3504 - Mycology **Credits: (4)**
- BTNY 3514 - Algology **Credits: (4)**
- BTNY 3523 - Marine Biology **Credits: (3)**
- BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**
- BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**
- BTNY 3643 - Intermountain Flora **Credits: (3)**
- BTNY 4113 - Plant Evolution **Credits: (3)**
- BTNY 4252 - Cell Culture **Credits: (2)**
- BTNY 4750 - Topics in Botany **Credits: (1-5)**
- BTNY 4890 - Cooperative Work Experience **Credits: (1-6)**
- BTNY 4950 - Advanced Field Botany **Credits: (1-5)**
- MATH 3450 - Advanced Statistical Methods **Credits: (4)**

## Botany Minor

### Botany (Minor/BIS)

**Grade Requirements:** An overall GPA of 2.00 in all courses used toward the minor.

**Credit Hour Requirements:** Minimum 19 credit hours in Botany courses.

### Course Requirements for Minor/BIS

Botany Courses Required (9 credit hours)

- BTNY 2104 - Plant Form and Function **Credits: (4)**
- BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**
- BTNY 2600 - Laboratory Safety **Credits: (1)**

## Electives

*Select at least three courses from the list below for a minimum of 10 credit hours (3 lower division credit hours maximum).*

- BTNY 2203 - Home and Garden Plants **Credits: (3)**
- BTNY 2303 - Ethnobotany **Credits: (3)**
- BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**
- BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**

BTNY 3153 - Biology of the Plant Cell **Credits: (3)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3303 - Plant Genetics **Credits: (3)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**  
BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**  
BTNY 3643 - Intermountain Flora **Credits: (3)**  
BTNY 4113 - Plant Evolution **Credits: (3)**  
BTNY 4252 - Cell Culture **Credits: (2)**  
BTNY 4750 - Topics in Botany **Credits: (1-5)**  
BTNY 4890 - Cooperative Work Experience **Credits: (1-6)**  
BTNY 4950 - Advanced Field Botany **Credits: (1-5)**  
MATH 3450 - Advanced Statistical Methods **Credits: (4)**

## Botany Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Chemistry

**Department Chair:** Laine Berghout

**Location:** Tracy Hall Science Center, Room 255H

**Telephone Contact:** Colleen Boam 801-626-6952

**Professors:** Laine Berghout, Charles Davidson, Todd M. Johnson, Andreas Lippert, Barry A. Lloyd, Michelle Paustenbaugh, Edward Walker; **Associate Professors:** Don Davies, Timothy Herzog; **Assistant Professors:** Brandon Burnett, Tracy Covey; **Instructor:** Carol Campbell

The Department of Chemistry is approved and certified by the American Chemical Society (ACS). Two options are offered which lead to the Bachelor of Science degree in Chemistry. Option 1 meets all the requirements of the ACS and the graduate's names are submitted to the ACS and certified by the department. Option 2 provides a good foundation in chemistry that is suitable for Pre-Medical, Pre-Dental, Pre-Pharmacy, and other Pre-Medical Professional students who need a sound chemical background. The Chemistry Teaching Major leads to a Bachelor of Science Degree with secondary education licensure. A Chemistry Minor and a Chemistry Teaching Minor are also available. The two-year Chemical Technician Program, leading to an Associate of Applied Science Degree or a Certificate of Skill Proficiency, is designed to emphasize skills required for employment as a technician in chemical laboratories.

### Physical Science Composite Teaching Major

See the Department of Physics section in this catalog for program requirements.

# Chemical Technician (AAS)

**Grade Requirements:** Minimum overall GPA of 2.00 or "C".

**Credit Hour Requirements:** A total of 63 credit hours are required for graduation; 35 of these are required within the program.

## Advisement

It is recommended that a student consult with a chemistry advisor annually. Call 801-626-6952 for information and to arrange an appointment.

## General Education

Refer to Degree Requirements for Associate of Applied Science requirements. The following course required for the Chemical Technician program will also satisfy part of the general education requirement for physical sciences: CHEM 1210.

## Major Course Requirements for AAS Degree

### Courses Required

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**  
CHEM 2990 - Chemical Technician Seminar **Credits: (1)**

### Foundation Courses

Students are required to take 2 of the following foundation courses:

Please note the combined CHEM 2310 and CHEM 2315 and CHEM 3070 and CHEM 3075 count as one foundation course. CHEM 2310 and CHEM 2315 must be taken concurrently.

CHEM 2310 - Organic Chemistry I **Credits: (4)**  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**  
CHEM 3000 - Quantitative Analysis **Credits: (4)**  
CHEM 3070 - Biochemistry I **Credits: (3)**  
CHEM 3075 - Biochemistry I Lab **Credits: (1)**  
CHEM 3410 - Foundations in Physical Chemistry **Credits: (4)**  
CHEM 3610 - Foundations in Inorganic Chemistry **Credits: (4)**

### Support Course Required (4 credit hours)

MATH 1050 QL - College Algebra **Credits: (4)**

# Chemical Technician Certificate of Completion

**Grade Requirements:** Minimum overall GPA of 2.00 or "C".

**Credit Hour Requirements:** A total of 41 credit hours are required.

## Course Requirements for Institutional Certificate of Completion

### Courses Required (21 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2600 - Laboratory Safety **Credits: (1)**  
CHEM 2990 - Chemical Technician Seminar **Credits: (1)**  
CHEM 3000 - Quantitative Analysis **Credits: (4)**  
CHEM 3020 - Computer Applications in Chemistry **Credits: (1)**  
CHEM 3050 - Instrumental Analysis **Credits: (4)**

### Support Courses Required (10 credit hours)

ENGL 1010 EN - Introductory College Writing **Credits: (3)**  
One additional course in oral or written communications **(3)**  
*Minimum* MATH 1010 - Intermediate Algebra **Credits: (4)** or *equivalent*

### Elective Courses (Select 10 credit hours; at least 4 credit hours must be 2000-level or higher)

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**  
CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**  
CHEM 2890 - Cooperative Work Experience **Credits: (1-6)**  
CHEM 3070 - Biochemistry I **Credits: (3)**  
CHEM 3075 - Biochemistry I Lab **Credits: (1)**  
CHEM 3080 - Biochemistry II **Credits: (3)**  
CHEM 3090 - Biochemical Techniques **Credits: (1)**  
CHEM 4540 - Spectrometric and Separation Methods **Credits: (4)**  
CHEM 4890 - Cooperative Work Experience **Credits: (1-6)**  
MICR 2054 LS - Principles of Microbiology **Credits: (4)**  
MICR 3053 - Microbiological Procedures **Credits: (3)**  
MICR 3254 - Immunology **Credits: (4)**  
MICR 4154 - Microbial Genetics **Credits: (4)**  
MICR 4252 - Cell Culture **Credits: (2)**  
BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**  
BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 3153 - Biology of the Plant Cell **Credits: (3)**  
GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**  
GEO 1115 - Physical Geology Lab **Credits: (1)**  
GEO 2050 - Earth Materials **Credits: (4)**  
PHYS 1010 PS - Elementary Physics **Credits: (3)**

PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

PHYS 2020 - College Physics II **Credits: (5)** or

PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

ZOOL 2200 LS - Human Physiology **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

ZOOL 4300 - Molecular Genetics **Credits: (4)**

CJ 1350 - Introduction to Forensic Science **Credits: (3)**

CJ 4110 - Physical Methods in Forensic Science **Credits: (4)**

CJ 4115 - Friction Ridge Analysis **Credits: (4)**

CJ 4125 - Research Methods in Forensic Science **Credits: (4)**

Note:

*Other courses may be used to fill these 10 hours of electives if approved by the Chemistry Department Chair.*

## Biochemistry - ACS Certified (BS)

**Program Prerequisite:** Students are eligible for admission to the Biochemistry (BS) Program upon completion of the requirements for the Chemical Technician (AAS) degree, the requirements of which are a subset of the Biochemistry (BS) requirements.

**Minor:** Not required.

**Grade Requirements:** Average GPA of 2.00 or better in courses within the major.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A minimum of 56 credit hours of chemistry and chemistry related course work are required with a further 18 credits in required cognate courses outside of chemistry. A total of 40 upper division credit hours (in courses numbered 3000 and above) are required for all Biochemistry majors to fulfill University graduation requirements; 36 upper division credit hours are earned while completing the Biochemistry program requirements.

### Advisement

All Biochemistry majors should meet with their assigned faculty advisor at least annually for course and program advisement. Initial advisement is with the Chemistry Department Chair. Call 801-626-6952 for information and to arrange an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). Students are eligible for admission to the Biochemistry (BS) program upon completion of the requirements for the Chemical Technician (AAS) degree, the requirements of which are a subset of the in Biochemistry (BS) requirements.

### General Education Requirements

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Biochemistry major also satisfy general education requirements for the physical sciences: CHEM 1210 and PHYS 2210 or PHYS 2010.

### Biochemistry-ACS Certified (BS)

Students applying for the Biochemistry Major will first complete the requirements for the Chemical Technician AAS. Courses for the AAS are included here for completeness.

## Required Introductory and Foundation Courses (32 credit hours)

The following are introductory and foundation level courses that are required for the Biochemistry major.

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**
- CHEM 2990 - Chemical Technician Seminar **Credits: (1)**
- CHEM 2310 - Organic Chemistry I **Credits: (4)**
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**
- CHEM 3000 - Quantitative Analysis **Credits: (4)**
- CHEM 3070 - Biochemistry I **Credits: (3)**
- CHEM 3075 - Biochemistry I Lab **Credits: (1)**
- CHEM 3410 - Foundations in Physical Chemistry **Credits: (4)**
- CHEM 3610 - Foundations in Inorganic Chemistry **Credits: (4)**

## Required In-Depth Courses (16 credit hours)

The following are required courses beyond the foundation and include either ZOO 3200 - Cell Biology, or MICR 4154 - Microbial Genetics.

- CHEM 2320 - Organic Chemistry II **Credits: (4)**
- CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**
- CHEM 3080 - Biochemistry II **Credits: (3)**
- CHEM 3090 - Biochemical Techniques **Credits: (1)**
  
- CHEM 4250 - Medicinal Chemistry **Credits: (3)** and  
MICR 4154 - Microbial Genetics **Credits: (4)** or  
ZOO 3200 - Cell Biology **Credits: (4)**

## Elective In-Depth Courses (select at least 8 credit hours)

Students will complete 8 hours of elective credits from the list below including courses from the chemistry, botany, microbiology or zoology departments. At least two hours of CHEM Laboratory are required. One hour of laboratory credit is embedded in most in-depth CHEM courses. Please consult the course description for more details.

- BTNY 3153 - Biology of the Plant Cell **Credits: (3)**
- BTNY 3204 - Plant Physiology **Credits: (4)**
- BTNY 3303 - Plant Genetics **Credits: (3)**
- BTNY 3583 - Medicinal Plants-Chemistry and Use **Credits: (4)**
- CHEM 3050 - Instrumental Analysis **Credits: (4)**
- CHEM 4420 - Quantum Chemistry **Credits: (4)**
- CHEM 4540 - Spectrometric and Separation Methods **Credits: (4)**
- CHEM 4620 - Advanced Inorganic Chemistry **Credits: (4)**
- CHEM 4700 - Special Topics in Chemistry **Credits: (1-3)**
- CHEM 4800 - Research and Independent Study in Chemistry **Credits: (1-3)**
- MICR 3254 - Immunology **Credits: (4)**
- MICR 3305 - Medical Microbiology **Credits: (5)**
- MICR 4054 - Microbial Physiology **Credits: (4)**
- MICR 4154 - Microbial Genetics **Credits: (4)**
- MICR 4252 - Cell Culture **Credits: (2)**
- ZOO 3200 - Cell Biology **Credits: (4)**
- ZOO 3300 - Genetics **Credits: (4)**
- ZOO 4210 - Advanced Human Physiology **Credits: (4)**
- ZOO 4220 - Endocrinology **Credits: (4)**
- ZOO 4300 - Molecular Genetics **Credits: (4)**

Note:

CHEM 2600 - Laboratory Safety recommended.

Students planning to attend graduate school should take PHYS 2210/2220 and CHEM 4420.

Additional courses should be chosen to support career plans.

## Required Cognate Courses (18 credit hours)

Students must complete a minimum of two semesters of calculus and two semesters of physics with laboratory.

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)** or  
PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

## Chemistry - ACS Certified (BS)

**Program Prerequisite:** Students are eligible for admission to the Chemistry (BS) Program upon completion of the requirements for the Chemical Technician (AAS) degree, the requirements of which are a subset of the in Chemistry (BS) requirements.

**Minor:** Not required

**Grade Requirements:** Average GPA of 2.00 or better in courses within the major.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation. A minimum of 51 credit hours of chemistry and chemistry related course work are required with a further 18 credits in required cognate courses outside of chemistry. A total of 40 upper division credit hours (in courses numbered 3000 and above) are required for all Chemistry majors to fulfill University graduation requirements; 29-34 upper division credit hours are earned while completing the Chemistry program requirements.

### Advisement

All Chemistry majors should meet with their assigned faculty advisor at least annually for course and program advisement. Initial advisement is with the Chemistry Department Chair. Call 801-626-6952 for information and to arrange an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). Students are eligible for admission to the Chemistry (BS) Program upon completion of the requirements for the Chemical Technician (AAS) degree, the requirements of which are a subset of the in Chemistry (BS) requirements.

### General Education Requirements

Refer to Degree and General Education Requirements for Bachelor of Science requirements. The following courses required for the Chemistry major also satisfy general education requirements for the physical sciences: CHEM 1210 and PHYS 2210.

## Chemistry-ACS Certified (BS)

Students applying for the Chemistry Major will first complete the requirements for the Chemical Technician AAS. Courses for the AAS are included here for completeness.

## Required Introductory and Foundation Courses (32 credit hours)

The following are introductory and foundation level courses that are required for the Chemistry major.

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**
- CHEM 2310 - Organic Chemistry I **Credits: (4)**
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**
- CHEM 2990 - Chemical Technician Seminar **Credits: (1)**
- CHEM 3000 - Quantitative Analysis **Credits: (4)**
- CHEM 3070 - Biochemistry I **Credits: (3)**
- CHEM 3075 - Biochemistry I Lab **Credits: (1)**
- CHEM 3410 - Foundations in Physical Chemistry **Credits: (4)**
- CHEM 3610 - Foundations in Inorganic Chemistry **Credits: (4)**

## Required In-Depth Courses (3 credit hours)

The following are required courses beyond the foundation.

- CHEM 4800 - Research and Independent Study in Chemistry **Credits: (1-3)**  
*Minimum of 2 credit hours of CHEM 4800 are required*
- CHEM 4990 - Senior Seminar **Credits: (1)**

## Elective In-Depth Courses (minimum 16 credit hours)

Students must take a minimum of 16 credit hours of the following courses with a minimum of 12 hours in CHEM including a minimum of 4 hours of CHEM laboratory. One hour of laboratory credit is imbedded in most in-depth CHEM courses. Please consult the course description for more detail.

- CHEM 2320 - Organic Chemistry II **Credits: (4)**
- CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**
- CHEM 3020 - Computer Applications in Chemistry **Credits: (1)**
- CHEM 3050 - Instrumental Analysis **Credits: (4)**
- CHEM 3080 - Biochemistry II **Credits: (3)**
- CHEM 3090 - Biochemical Techniques **Credits: (1)**
- CHEM 4420 - Quantum Chemistry **Credits: (4)**
- CHEM 4250 - Medicinal Chemistry **Credits: (3)**
- CHEM 4540 - Spectrometric and Separation Methods **Credits: (4)**
- CHEM 4550 - Geochemistry **Credits: (3)**
- CHEM 4620 - Advanced Inorganic Chemistry **Credits: (4)**
- CHEM 4700 - Special Topics in Chemistry **Credits: (1-3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MATH 3710 - Boundary Value Problems **Credits: (3)**
- MATH 4110 - Modern Algebra I **Credits: (3)**
- MICR 4054 - Microbial Physiology **Credits: (4)**
- PHYS 3180 - Thermal Physics **Credits: (3)**
- PHYS 3190 - Applied Optics **Credits: (3)**
- PHYS 3410 - Electronics for Scientists **Credits: (4)**
- PHYS 4200 - The Physics of Materials **Credits: (3)**
- PHYS 4410 - Materials Characterization Laboratory **Credits: (2)**
- PHYS 4610 - Quantum Mechanics **Credits: (3)**

ZOOL 3200 - Cell Biology **Credits: (4)**

Note:

*CHEM 2600 - Laboratory Safety is recommended.*

*CHEM 2320/2325, CHEM 4420, and CHEM 4620 are strongly recommended for students planning to attend graduate school.*

*Additional upper division math courses (MATH 2210, MATH 2270, MATH 2280, MATH 3410, MATH 3710, MATH 4110) are recommended for students planning to attend graduate school and study physical chemistry or chemical engineering.*

*Additional courses should be chosen to support career plans.*

## **Required Cognate Courses (18 credit hours)**

Students must complete a minimum of two semesters of calculus and two semesters of physics with laboratory.

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

## **Chemistry Teaching (BS)**

**Program Prerequisite:** Chemistry Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

**Minor:** Required for Teaching Major.

**Grade Requirements:** Average GPA of 2.00 or better in Chemistry courses. Also refer to the general grade requirements for graduation on Degree Requirements.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 43 are required within the teaching major, plus the credits required by the Teacher Education department. A total of 40 upper division credit hours (in courses numbered 3000 and above) are required for all Chemistry majors to fulfill University graduation requirements.

### **Advisement**

All Chemistry majors should meet with the Chemistry Department Chair at least annually for course and program advisement. Call 801-626-6952 for information and to arrange an appointment.

### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the Chemistry major, however, teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

### **General Education Requirements**

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Chemistry major also satisfy general education requirements: CHEM 1210 and PHYS 2210.

## Major Course Requirements for BS Degree

### Chemistry Core Courses Required (25 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

CHEM 3000 - Quantitative Analysis **Credits: (4)**  
CHEM 3020 - Computer Applications in Chemistry **Credits: (1)**

## Teaching Major

### Additional Chemistry Courses Required (8 credit hours)

CHEM 2600 - Laboratory Safety **Credits: (1)**  
CHEM 3570 - Foundations of Science Education **Credits: (3)**  
CHEM 4570 - Secondary School Science Teaching Methods **Credits: (3)**  
CHEM 4800 - Research and Independent Study in Chemistry **Credits: (1-3)** (1 credit hour required)

### Electives (select at least 7 credit hours)

CHEM 3050 - Instrumental Analysis **Credits: (4)**  
CHEM 3070 - Biochemistry I **Credits: (3)**  
CHEM 3080 - Biochemistry II **Credits: (3)**  
CHEM 3410 - Foundations in Physical Chemistry **Credits: (4)** (note prereqs)  
CHEM 4420 - Quantum Chemistry **Credits: (4)**

### Support Course Required (3 credit hours)

HIST 3350 - History and Philosophy of Science **Credits: (3)**

### Note:

*Consult with an advisor early in the program to choose elective courses which will fulfill teaching endorsement requirements.*

*Student must also complete requirements for a secondary education license as determined by the Jerry and Vicki Moyes College of Education.*

## Chemistry (BIS)

**Grade Requirements:** A minimum grade of "C" must be achieved in all coursework used to satisfy BIS emphasis requirements, consistent with the requirements for the BIS degree.

**Credit Hours Requirements:** A minimum of 18 credit hours is required for the BIS emphasis.

### Course Requirements for BIS Emphasis

Chemistry Courses Required (10 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

BIS Electives (8 credit hours)

*Select additional chemistry coursework including at least 8 credit hours of upper division courses (numbered 3000 and above).*

## Chemistry Minor

**Grade Requirements:** A minimum passing grade of "D-" will be accepted in any course used toward the minor.

**Credit Hours Requirements:** A minimum of 20 credit hours is required.

Course Requirements for Minor

Chemistry Courses Required (10 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

Minor Electives (10 credit hours)

*Select at least 10 credit hours of chemistry coursework numbered 2000 and above.*

## Chemistry Teaching Minor

**Grade Requirements:** Even though a minimum passing grade of "D-" will be accepted in any course used toward the minor,

**Credit Hour Requirements:** A minimum of 26 credit hours is required.

*Students who select the Chemistry Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

## Course Requirements for Teaching Minor

### Courses Required (23 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 2320 - Organic Chemistry II **Credits: (4)** and  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

*Approved chemistry elective, 3000 or above*

### Support Course Required (3 credit hours)

HIST 3350 - History and Philosophy of Science **Credits: (3)**

If a student is not obtaining a Teaching Major in Sciences, the following courses are also required:

CHEM 2600 - Laboratory Safety **Credits: (1)**  
CHEM 3570 - Foundations of Science Education **Credits: (3)**  
CHEM 4570 - Secondary School Science Teaching Methods **Credits: (3)**

## Chemistry Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Geosciences

**Department Chair:** Dr. Richard Ford

**Location:** Tracy Hall Science Center, Room 338

**Telephone Contact:** Marianne Bischoff 801-626-7139

**Professors:** Richard Ford, Michael Hernandez, Marek Matyjasik, Adolph Yonkee; **Assistant Professors:** Elizabeth Balgord, Carie Frantz; **Visiting Lecturer:** Sara Summers

The Geosciences are concerned with the Earth, its origin, composition, and evolution through time as well as studying the processes that affect the Earth and the life forms that have lived on it in the past. Many geoscience applications use computer technology (GIS and Remote Sensing) for mapping the Earth and modeling the processes that affect the planet. The department offers bachelor's degrees in Geology, Applied Environmental Geosciences, and Earth Science Teaching, and an option in the Physical Science Composite Teaching Major. A Geology Minor, Earth Science Teaching Minor, and a Geospatial Analysis Minor are available. An Institutional Certificate in Geomatics (Applied Computer Mapping) is also available.

## Interdisciplinary Programs

The Geosciences Department participates in the interdisciplinary Environmental Studies Minor Program and the Urban and Regional Planning Emphasis Program. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of the catalog.)

## Geospatial Analysis Certificate of Proficiency

*Advisor: Dr. Michael Hernandez 626-8186 mhernandez@weber.edu*

**Grade Requirements:** A grade of "C" or better in all courses used toward the certificate (a grade of "C-" is not acceptable). An overall GPA of 2.75 is required for the six core courses in the Certificate Program.

**Credit Hour Requirements:** Minimum of 16 credit hours from the Department of Geosciences, and 6 credit hours from the Department of Computer Science and/or Department of Management Information Systems.

**Gainful Employment Disclosure**

*Additional information pertaining to the Geospatial program and facilities may be found at:  
<http://departments.weber.edu/geosciences>.*

## Course Requirements for Certificate of Proficiency

### Geosciences Courses Required (16 credit hours)

GEO 3400 - Remote Sensing I **Credits: (4)**

GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**

GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**

GEO 4400 - Remote Sensing II: Advanced Digital Image Processing **Credits: (4)**

### Computer Science Courses Required (6 credit hours)

*Select at least 6 hours from the following:*

CS 1023 - Selected Programming Language **Credits: (4)**

CS 1410 - Object-Oriented Programming **Credits: (4)**

MIS 2110 - Software Development I **Credits: (3)**

MIS 3210 - Database Design and Implementation **Credits: (3)**

MIS 3720 - Software Development II **Credits: (3)**

### Additional Information:

*Other applicable geospatial, computer programming or database courses may be considered at the discretion of the Certificate Program Director.*

*A selected sample of degree programs that complement the Geomatics Certificate include Applied Environmental Geosciences, Geology, Botany, Computer Science, Information Systems & Technologies, Geography, Archaeology, or a combination of three emphasis areas for a Bachelor of Integrated Studies (BIS) Degree. The Geomatics Certificate provides students with the essential skills necessary for today's geospatial applications.*

# Geology (BA)

**Advisor:** Dr. Richard Ford, 801-626-6942 [rford@weber.edu](mailto:rford@weber.edu)

**Program Prerequisite:** None

**Minor:** Required for Option A; Not required for Option B \*

**Grade Requirements:** A grade of "C-" or better in courses required for this major in addition to an overall GPA for all courses of 2.00 or higher.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 63-69 of these are required within the major for Option A BA, and 69-75 of these are required in the major for Option B BA. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

*\* Students may benefit from having a minor in such fields as chemistry, physics, mathematics, computer science, geospatial analysis, or a life science, and should consult with an advisor prior to choosing an option.*

## Advisement

All Geology students are required to meet with a faculty advisor (see above) at least annually for course and program advisement. Call 801-626-7139 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program. However, students should meet with an advisor to plan and declare their program of study.

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. MATH 1050 or MATH 1080 is recommended for the Quantitative Literacy requirement. The following courses required for the Geology major will also satisfy general education requirements: CHEM 1210, GEO 1110, PHYS 2010, and PHYS 2210.

## Language Courses Required to fulfill the BA (12 credit hours)

*Select 6 semester-hours of a foreign language*

*and*

*Select 6 hours from*

ENGL 2100 - Technical Writing **Credits: (3)**

ENGL 3100 - Professional and Technical Writing **Credits: (3)**

ENGL 3520 HU - Literature of the Natural World **Credits: (3)**

Or additional foreign language

## Major Course Requirements for BA Degree

Geosciences Courses Required (19 credit hours)

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**

GEO 1115 - Physical Geology Lab **Credits: (1)**

GEO 1220 - Historical Geology **Credits: (4)**

GEO 2050 - Earth Materials **Credits: (4)**

GEO 3080 - Water Resources **Credits: (3)**

GEO 3150 - Geomorphology **Credits: (4)**

### Electives Courses (18 hours for Option A; 24 hours for Option B)

*Option A - Select an additional 18 hours from Geoscience courses numbered 3000 and above and/or up to 6 hours from other Earth/environmentally related classes approved by the Geosciences Department and complete a minor\**

*Option B - Select an additional 24 hours from Geoscience courses numbered 3000 and above and/or up to 6 hours from other Earth/environmentally related classes approved by the Geosciences Department*

### Support Courses Required (14-20 credit hours)

BTNY 1203 LS - Plant Biology **Credits: (3)** or

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**

CHEM 1010 PS - Introductory Chemistry **Credits: (3)** or

CHEM 1110 PS - Elementary Chemistry **Credits: (5)** or

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** \*\*

PHYS 1010 PS - Elementary Physics **Credits: (3)** or

PHYS 2010 PS - College Physics I **Credits: (5)** or

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** \*\*

**either**

MATH 1050 QL - College Algebra **Credits: (4)** and

MATH 1060 - Trigonometry **Credits: (3)**

**or**

MATH 1080 QL - Pre-calculus **Credits: (5)** \*\*

Note:

*\* Students should consider a minor or complementary set of elective classes that supports their career plans (please consult an advisor).*

*\*\* Students planning to attend graduate school in science areas should take additional Chemistry, Physics, and Math classes (please consult an advisor).*

## Applied Environmental Geosciences (BS)

**Advisors:** Dr. Marek Matyjasik, 801-626-7726 [mmatyjasik@weber.edu](mailto:mmatyjasik@weber.edu)

**Program Prerequisite:** None.

**Minor:** Not required.

**Grade Requirements:** A grade of "C-" or better in each courses required by this major in addition to a minimum cumulative GPA for all courses of 2.0.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 84 to 87 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 31 to 34 of these are required within the major.

## Advisement

All Geoscience students are required to meet with a faculty advisor (see above) at least annually for course and program advisement. Call 801-626-7139 for more information or to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program. However, students should meet with an advisor to plan and declare their program of study.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. MATH 1050 or MATH 1080 is recommended for the Quantitative Literacy requirement. The following courses required for the Applied Environmental Geoscience major will also satisfy general education requirements: CHEM 1210, GEO 1060, GEO 1110, PHYS 2010, and PHYS 2210.

## Major Course Requirements for BS Degree

### Geosciences Courses Required (38 credit hours)

- GEO 1060 PS - Environmental Geosciences **Credits: (3)**
- GEO 1065 - Environmental Geosciences Lab **Credits: (1)**
- GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**
- GEO 1115 - Physical Geology Lab **Credits: (1)**
- GEO 1220 - Historical Geology **Credits: (4)**
- GEO 2050 - Earth Materials **Credits: (4)**
- GEO 3080 - Water Resources **Credits: (3)**
- GEO 3150 - Geomorphology **Credits: (4)**
- GEO 3550 - Sedimentology and Stratigraphy **Credits: (4)**
- GEO 4060 - Geoscience Field Methods **Credits: (3)**
- GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**

Select one of the following

- GEO 3400 - Remote Sensing I **Credits: (4)**
- GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**
- GEO 4400 - Remote Sensing II: Advanced Digital Image Processing **Credits: (4)**

### Electives Required (12 credit hours)

*Select 12 credit hours from the following*

- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1130 PS - Introduction to Meteorology **Credits: (3)**
- GEO 3010 - Oceanography and Earth Systems **Credits: (3)**
- GEO 3060 - Structural Geology **Credits: (4)**
- GEO 3180 - Paleontology **Credits: (4)**
- GEO 3210 - Quaternary Environmental Change **Credits: (3)**
- GEO 3250 - Geology of Utah **Credits: (3)**
- GEO 3880 - Groundwater **Credits: (4)**
- GEO 4010 - Ancient Environments and Paleoecology **Credits: (3)**
- GEO 4100 - Engineering Geology **Credits: (3)**
- GEO 4150 - Environmental Assessment **Credits: (3)**
- GEO 4300 - Igneous and Metamorphic Petrology **Credits: (4)**

GEO 4510 - Geology Field Camp **Credits: (4)**  
GEO 4550 - Geochemistry **Credits: (3)**  
GEO 4630 - Global Tectonics **Credits: (3)**  
GEO 4750 - Special Topics in Geosciences **Credits: (1-4)**  
GEO 4800 - Independent Research **Credits: (1-3) \***  
GEO 4970 - Senior Thesis **Credits: (2) \***

or any of the following not taken as part of the core

GEO 3400 - Remote Sensing I **Credits: (4)**  
GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**  
GEO 4400 - Remote Sensing II: Advanced Digital Image Processing **Credits: (4)**

or one of the following courses

BTNY 3214 - Soils **Credits: (4)**  
CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**  
CHEM 3000 - Quantitative Analysis **Credits: (4)**  
GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**  
GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**  
MICR 3484 - Environmental Microbiology **Credits: (4)**

Note:

*\* No more than 4 combined credit hours from GEO 4800 and GEO 4970 may be counted toward the major requirements.*

### Support Courses Required (34-37 credit hours)

BTNY 1203 LS - Plant Biology **Credits: (3)** or  
BTNY 2104 - Plant Form and Function **Credits: (4)** or  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

ENGL 2100 - Technical Writing **Credits: (3)**  
MATH 1040 QL - Introduction to Statistics **Credits: (3)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**  
**or**  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5) \***

**either**

MATH 1050 QL - College Algebra **Credits: (4)**  
MATH 1060 - Trigonometry **Credits: (3)**

**or**

MATH 1080 QL - Pre-calculus **Credits: (5)**

**or**

MATH 1210 - Calculus I **Credits: (4) \*\***

**Note:**

*\*Students planning to attend graduate school in Geology or a related geotechnical area should take PHYS 2210-PHYS 2220, Physics for Scientists & Engineers, instead of the General Physics series (PHYS 2010-PHYS 2020).*

*\*\*Students planning to attend graduate school in Geology or a related geotechnical area should also take MATH 1210/MATH 1220, Calculus I and II (8).*

*Students planning a career or advanced degree in geospatial applications are encouraged to complete the Geomatics certificate program. Students planning a career or advanced degree in geotechnical applications are encouraged to take GEO 3060, GEO 3880, GEO 4100, and GEO 4150 as electives. Course work in microbiology, especially Environmental Microbiology (MICR 3484), is recommended for students pursuing environmental or remediation-related careers.*

## **Earth Science Teaching (BS)**

*Advisor: Dr. Richard Ford, 801-626-6942 rford@weber.edu*

Program Prerequisite: Must satisfy Teacher Education admission and licensure requirements (see Teacher Education Department).

Minor: Not required.

Grade Requirements: A grade of "C-" or better in courses required for this major.

Credit Hour Requirements: A total of 125-126 credit hours is required for graduation; 70 to 72 of these are required within the major. Teacher Education Licensure requires 9 credit hours of support courses and 24 credit hours of professional education courses (see Teacher Education Department). This major requires a total of 44 upper division credit hours (courses numbered 3000 and above); 17 of these are required Geosciences courses and 24 are Teacher Education courses.

### **Advisement**

All Earth Science Teaching students are required to meet with a faculty advisor (see previous column) at least annually for course and program advisement. Call 801-626-7139 for more information or to schedule an appointment. In addition, teaching majors are encouraged to consult with an advisor in the Jerry and Vickie Moyes College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

### **Admission Requirements**

Declare your program of study (see Enrollment Services and Information). Earth Science Teaching majors must satisfy Teacher Education admission and licensure requirements. (See Teacher Education Department.)

### **General Education**

Refer to Degree Requirements for Bachelor of Science requirements. MATH 1050 or MATH 1080 is recommended for the Quantitative Literacy requirement. The following courses required for the Earth Science Teaching major will also satisfy general education requirements: BTNY 1203, CHEM 1210, GEO 1060, GEO 1110, GEO 1130, PHYS 1040, PHYS 2010, and PHYS 2210. The following required education support courses will also satisfy general education requirements: CHF 1500 and COMM 1020 or COMM 2110.

## Major Course Requirements for BS Degree

### Earth Science Courses Required (42 credit hours)

GEO 1060 PS - Environmental Geosciences **Credits: (3)**  
GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**  
GEO 1115 - Physical Geology Lab **Credits: (1)**  
GEO 1130 PS - Introduction to Meteorology **Credits: (3)**  
GEO 1220 - Historical Geology **Credits: (4)**  
GEO 2050 - Earth Materials **Credits: (4)**  
GEO 2600 - Laboratory Safety **Credits: (1)**  
GEO 3010 - Oceanography and Earth Systems **Credits: (3)**  
GEO 3150 - Geomorphology **Credits: (4)**  
GEO 3570 - Foundations of Science Education **Credits: (3)**  
GEO 4570 - Secondary School Science Teaching Methods **Credits: (3)**  
GEO 4800 - Independent Research **Credits: (1-3)** (only 1 credit hour required)

PHYS 1040 PS - Elementary Astronomy **Credits: (3)** or  
ASTR 1040 PS - Elementary Astronomy **Credits: (3)**

BTNY 1203 LS - Plant Biology **Credits: (3)**

Select one or more of the following for a minimum of 3 credit hours:

GEO 3060 - Structural Geology **Credits: (4)**  
GEO 3080 - Water Resources **Credits: (3)**  
GEO 3180 - Paleontology **Credits: (4)**  
GEO 3210 - Quaternary Environmental Change **Credits: (3)**  
GEO 3250 - Geology of Utah **Credits: (3)**  
GEO 3550 - Sedimentology and Stratigraphy **Credits: (4)**  
GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**  
GEO 4750 - Special Topics in Geosciences **Credits: (1-4)**  
GEO 4950 - Advanced Geoscience Fieldtrips **Credits: (1-3)**

### Required Support Courses (28-30 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

*or*

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

HIST 3350 - History and Philosophy of Science **Credits: (3)**

*either*

MATH 1050 QL - College Algebra **Credits: (4)** and  
MATH 1060 - Trigonometry **Credits: (3)**

*or*

MATH 1080 QL - Pre-calculus **Credits: (5)**

## Recommended Support Courses

any additional upper division (numbered 3000 and above) Geoscience course

BTNY 3214 - Soils **Credits: (4)**

GEOG 1500 PS - The Science of Global Warming: Myths, Realities and Solutions **Credits: (3)**

GEOG 3060 - World Environmental Issues **Credits: (3)**

MATH 1040 QL - Introduction to Statistics **Credits: (3)**

ZOOL 1010 LS - Animal Biology **Credits: (3) \***

Note:

\*The Utah State Office of Education also requires Earth Science Teaching graduates to pass the Earth and Space Science Praxis exam to receive the Earth Science endorsement (9th grade). Earth Science Teaching graduates who pass the General Science Praxis exam may also receive the Middle Level Science endorsement (7th and 8th grades). Completion of ZOOL 1010 will help prepare students for the General Science Praxis exam.

## Geology (BS)

**Advisor:** Dr. Rick Ford, 801-626-6942 rford@weber.edu

**Program Prerequisite:** None

**Minor:** Required for Option A; Not required for Option B \*

**Grade Requirements:** A grade of "C-" or better in courses required for this major in addition to an overall GPA for all courses of 2.00 or higher.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 63-69 of these are required within the major for Option A BS, and 69-75 of these are required in the major for Option B BS. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

*\* Students may benefit from having a minor in such fields as chemistry, physics, mathematics, computer science, geospatial analysis, or a life science, and should consult with an advisor prior to choosing an option.*

### Advisement

All Geology students are required to meet with a faculty advisor (see above) at least annually for course and program advisement. Call 801-626-7139 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program. However, students should meet with an advisor to plan and declare their program of study.

### General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. MATH 1050 or MATH 1080 is recommended for the Quantitative Literacy requirement. The following courses required for the Geology major will also satisfy general education requirements: CHEM 1210, GEO 1110, PHYS 2010, and PHYS 2210.

## Major Course Requirements for BS Degree

## Geosciences Courses Required (39 credit hours)

- GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**
- GEO 1115 - Physical Geology Lab **Credits: (1)**
- GEO 1220 - Historical Geology **Credits: (4)**
- GEO 2050 - Earth Materials **Credits: (4)**
- GEO 3060 - Structural Geology **Credits: (4)**
- GEO 3150 - Geomorphology **Credits: (4)**
- GEO 3550 - Sedimentology and Stratigraphy **Credits: (4)**
- GEO 4060 - Geoscience Field Methods **Credits: (3)**
- GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**
- GEO 4300 - Igneous and Metamorphic Petrology **Credits: (4)**
- GEO 4510 - Geology Field Camp **Credits: (4)**

## Electives Courses (5 hours for Option A; 11 hours for Option B)

*Option A - Select 5 hours from the following courses and complete a minor.*

*Option B - Select 11 hours from the following courses.*

- GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**
- GEO 1060 PS - Environmental Geosciences **Credits: (3)**
- GEO 1065 - Environmental Geosciences Lab **Credits: (1)**
- GEO 3010 - Oceanography and Earth Systems **Credits: (3)**
- GEO 3080 - Water Resources **Credits: (3)**
- GEO 3180 - Paleontology **Credits: (4)**
- GEO 3210 - Quaternary Environmental Change **Credits: (3)**
- GEO 3250 - Geology of Utah **Credits: (3)**
- GEO 3400 - Remote Sensing I **Credits: (4)**
- GEO 3880 - Groundwater **Credits: (4)**
- GEO 4010 - Ancient Environments and Paleoecology **Credits: (3)**
- GEO 4100 - Engineering Geology **Credits: (3)**
- GEO 4150 - Environmental Assessment **Credits: (3)**
- GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**
- GEO 4400 - Remote Sensing II: Advanced Digital Image Processing **Credits: (4)**
- GEO 4550 - Geochemistry **Credits: (3)**
- GEO 4630 - Global Tectonics **Credits: (3)**
- GEO 4750 - Special Topics in Geosciences **Credits: (1-4)**
- GEO 4800 - Independent Research **Credits: (1-3) \***
- GEO 4970 - Senior Thesis **Credits: (2) \***

or up to two of the following courses from related areas

- BTNY 3214 - Soils **Credits: (4)**
- CHEM 2310 - Organic Chemistry I **Credits: (4)** and
- CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**
- CHEM 3000 - Quantitative Analysis **Credits: (4)**
- GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**
- GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**
- MICR 3484 - Environmental Microbiology **Credits: (4)**

Note:

*\* No more than 4 combined credit hours from GEO 4800 and GEO 4970 may be counted toward the major requirements.*

## Support Courses Required (25-27 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

**or**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** \* and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)** \*

**either**

MATH 1050 QL - College Algebra **Credits: (4)** and  
MATH 1060 - Trigonometry **Credits: (3)**

**or**

MATH 1080 QL - Pre-calculus **Credits: (5)**

**or**

MATH 1210 - Calculus I **Credits: (4)** \*\*

### Note:

\* Students planning to attend graduate school should take PHYS 2210-PHYS 2220, Physics for Scientists & Engineers, instead of the General Physics series (PHYS 2010-PHYS 2020).

\*\*Students planning to attend graduate school should also take MATH 1210/MATH 1220, Calculus I and II (8).

The physical chemistry sequence, CHEM 3410-CHEM 4420 (8), is recommended for students planning advanced study in geochemistry, mineralogy, or mineral deposits. Advanced course work in zoology, microbiology or botany is recommended for students planning advanced work in paleontology, stratigraphy, or related fields. Environmental Microbiology (MICR 3484) is recommended for students pursuing environmental or remediation-related careers.

## Geology Minor

Advisor: Dr. Richard Ford 801-626-6942 rford@weber.edu

**Grade Requirements:** A grade of "C-" or better in courses used toward the minor.

**Credit Hour Requirements:** Minimum of 19 credit hours in Geosciences courses.

## Course Requirements for Minor

### Geology Courses Required (12 credit hours)

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**

GEO 1115 - Physical Geology Lab **Credits: (1)**

GEO 1220 - Historical Geology **Credits: (4)**

GEO 2050 - Earth Materials **Credits: (4)**

### Geosciences Electives (minimum 7 credit hours)

Select at least two classes from the following

GEO 1030 PS - Earthquakes and Volcanoes **Credits: (3)**

GEO 1060 PS - Environmental Geosciences **Credits: (3)**  
GEO 1065 - Environmental Geosciences Lab **Credits: (1)**  
GEO 3060 - Structural Geology **Credits: (4)**  
GEO 3080 - Water Resources **Credits: (3)**  
GEO 3150 - Geomorphology **Credits: (4)**  
GEO 3180 - Paleontology **Credits: (4)**  
GEO 3210 - Quaternary Environmental Change **Credits: (3)**  
GEO 3550 - Sedimentology and Stratigraphy **Credits: (4)**  
GEO 4010 - Ancient Environments and Paleoecology **Credits: (3)**

## Geospatial Analysis Minor

**Advisor:** Dr. Michael Hernandez 801-626-8186 mhernandez@weber.edu

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 20 credit hours.

## Course Requirements for Minor

Geosciences Courses Required (20 credit hours)

GEO 3400 - Remote Sensing I **Credits: (4)**  
GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**  
GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**  
GEO 4400 - Remote Sensing II: Advanced Digital Image Processing **Credits: (4)**

GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)** and  
GEO 1115 - Physical Geology Lab **Credits: (1)**

**or**

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**  
GEO 1115 - Physical Geology Lab **(1)**

**or**

GEO 1060 PS - Environmental Geosciences **Credits: (3)** and  
GEO 1065 - Environmental Geosciences Lab **Credits: (1)**

**or**

Any 4 hours of GEO courses numbered 3000 or above

Note:

*If any required courses for the Geospatial Analysis Minor are also required in a student's major, then an elective of equivalent hours must be substituted.*

# Earth Science Teaching Minor

Advisor: Dr. Richard Ford 626-6942 rford@weber.edu

**Grade Requirements:** A grade of "C-" or better in courses used toward the minor.

**Credit Hour Requirements:** Minimum of 20 credit hours in Geosciences courses.

*Students who select the Earth Science Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

## Course Requirements for Minor

### Earth Science Courses Required (20 credit hours)

GEO 1060 PS - Environmental Geosciences **Credits: (3)**  
GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**  
GEO 1115 - Physical Geology Lab **Credits: (1)**  
GEO 1130 PS - Introduction to Meteorology **Credits: (3)**  
GEO 1220 - Historical Geology **Credits: (4)**

GEO 3010 - Oceanography and Earth Systems **Credits: (3)** or  
GEO 3210 - Quaternary Environmental Change **Credits: (3)**

PHYS 1040 PS - Elementary Astronomy **Credits: (3)**

If not taken as part of a student's major requirements, then the following courses are also required (up to 29 credit hours):

GEO 3570 - Foundations of Science Education **Credits: (3)**  
GEO 4570 - Secondary School Science Teaching Methods **Credits: (3)**

PHYS 2010 PS - College Physics I **Credits: (5)** and  
PHYS 2020 - College Physics II **Credits: (5)**

**or**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

HIST 3350 - History and Philosophy of Science **Credits: (3)**

Note:

*Any deviation from the above requirements must be approved by the department in advance.*

*This minor is best for students majoring in another area of science or science teaching, as one year of chemistry and one year of physics are required to obtain Earth Science teaching certification in the state of Utah.*

## Geosciences Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Developmental Mathematics Program

**Director:** Dr. Kathryn Van Wagoner

**Student Telephone Contact:** 801-626-7451

**Location:** Tracy Hall Science Center 207

**Office Telephone Contact:** Shawnette Horton, 801-626-7585

**Email Contact:** devmath@weber.edu

**Instructors:** Brenda Acor, Loyal Baker, Christopher Dunn, Amber Hansen, David Imig, Christine Jennings-Lewis, Charity Jones, Debi McKee, Janette Penrod, Darrell Poore, Carrie Quesnell, Cassidy Symonds, Mary Ellen Yonkee

The Developmental Mathematics Program prepares students to take the Quantitative Literacy courses offered by the Mathematics Department. See the Core Requirements listed under the General Education Requirements of the WSU Degree and General Education Requirements of this catalog.

For more information about our courses or assistance selecting the best course for your needs:  
[www.weber.edu/mathoptions](http://www.weber.edu/mathoptions)

## Placement in Mathematics Courses

To prevent delay of graduation, all students requiring developmental courses should begin those courses immediately and stay registered in mathematics until completing a Quantitative Literacy course. Developmental Math courses provide foundational skills necessary for college level courses. See Math Placement for details on our placement options.

## Course Delivery Options

Math Path

### Pathway to Contemporary Mathematics (MATH 0970)

This course is for students who plan to take MATH 1030 or MATH 1040 (i.e. Humanities and Social Studies majors). This course replaces the need to take MATH 0990 and MATH 1010, but it is not a combination of the two courses. Curriculum is focused on learning how to think and reason mathematically and is not as algebra intensive as our traditional courses. Collaborative learning is a key element of this course. MATH 0950 is a prerequisite for this course. This course may not be transferable to another institution.

### R.E.A.L. PATH (available for MATH 0950 and MATH 1010)

Real-life Explorations. Active Learning. These courses are ideal for students who want to know the practical value of math and the "why" behind the steps of doing math. Curriculum is based on real-life situations. Students are asked to think and reason mathematically in order to develop strong procedural fluency. Collaborative learning is a key element of this course. MATH 0970 can be taken as a prerequisite to R.E.A.L. MATH 1010.

### TECH PATH (available for MATH 0950, MATH 0990, and MATH 1010)

Courses on our Tech Path are computer-based with instructor support.

Flipped courses meet 4 hours a week in a classroom with an instructor. Students take notes while reading the e-textbook and/or watching video lectures before class, then work in groups during class to learn the course content. Homework and tests are taken online. This course is best for students who prefer a structured schedule and a social learning environment.

Online courses allow students to complete more than one course in a semester. No on-campus attendance is required, but local students are welcome to use the math tutoring center (the Hub) for instruction and testing. Students in online courses should be self-motivated, have good time management skills, consistent access to a computer and excellent technology skills. All quizzes and tests must be proctored, which may require additional fees.

# Department of Mathematics

**Department Chair:** Paul Talaga

**Location:** Tracy Hall Science Center, Room 381

**Telephone Contact:** Debi Larson 801-626-6095

**Professors:** Afshin Ghoreishi, Kent Kidman, George Kvernadze, Timothy Steele, Paul Talaga; **Associate Professors:** Mahmud Akelbek, Chloe Cai, Julian Chan, Mihail Cocos, Sandra Fital-Akelbek, Matthew Ondrus, James Peters; **Assistant Professors:** Rachel Bachman, Shawn Broderick, Cora Neal, C. David Walters

From data mining to forensics, mathematics is the language of choice for an ever increasing number of disciplines. The scientist, the engineer, the actuary, the financial planner - all use algebra, geometry, calculus and statistics. But also the voter needs to understand these concepts, albeit at a less advanced level, to reach informed decisions about a multitude of issues from utility rates and retirement saving to information security and global warming.

The Department of Mathematics offers a variety of courses (from general interest to advanced levels of applicability), two minors, departmental honors, and three majors. The Mathematics major may be the best choice for someone planning to go directly to graduate school; the Applied Mathematics major prepares one for a job that uses mathematics; the Mathematics Teaching major prepares students to be teachers of mathematics in elementary through high school.

## Prerequisites

Since each course in mathematics requires a working knowledge of principles from prerequisite courses, students are required to earn a "C" grade in each prerequisite course before registering for the next course.

## Placement

Weber State University students will be placed into mathematics courses by the following procedure.

A. To enroll in mathematics courses MATH 1030, MATH 1040, MATH 1050, MATH 1060, or MATH 1080 a student must have, **within the past 24 months**, either:

1. Received a Math ACT score of 23 or above  
*or*
2. Scored sufficiently high on a placement exam at the WSU testing center,  
*or*
3. Completed the prerequisite course with a grade of "C" or higher.

*Students who score below 23 on the Math ACT may be placed into developmental courses. See the math placement standards listed in the WSU Core General Education Requirements.*

B. To enroll in mathematics courses numbered 1210 through 2210, a student must have, **within the past 24 months**, either:

1. Obtained the appropriate AP Calculus score described below:
  - a. Five on the BC test places the student in MATH 2210 or higher
  - b. Three or four on the BC test places the student in MATH 1220
  - c. Four or five on the AB test places the student in MATH 1220
  - d. Three on the AB test places the student in MATH 1210

*or*

2. Scored sufficiently high on a placement exam at the WSU testing center.  
*or*
3. Completed the prerequisite course(s) with a grade of "C" or higher.

*Failure to comply with this policy will normally result in the cancellation of the student's math course registration.*

*It is recommended that students have their programs (majors and minors) approved before registering for upper division courses.*

# Mathematics (AS)

**Program prerequisite:** None

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 60 credit hours are required; a minimum of 18 credit hours are required in mathematics courses.

## Advisement

All Mathematics AS students should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the AS degree.

## General Education

Refer to Degree Requirements for Associate of Science degree. PHYS 2210 will fulfill requirements for both the AS degree and general education.

## Course Requirements for Mathematics AS Degree

Mathematics courses required (18 credit hours):

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

One course chosen from:

MATH 2280 - Ordinary Differential Equations **Credits: (3)**

Any upper division MATH course (MATH 3xxx or MATH 4XXX)

Support course required (5 credit hours):

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

# Mathematics (BA)

## All Mathematics Majors

**Program Prerequisite:** Not required for Mathematics and Applied Mathematics majors. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Required only for the regular mathematics major.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 31-46 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); at least nine credit hours of upper division Mathematics must be completed at Weber State University.

## Advisement

All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the Regular or Applied mathematics emphases. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. PHYS 2210 will fulfill requirements for both the major and general education. PSY 1010 (3) in the Social Sciences area is recommended for the Mathematics Teaching emphasis.

## Language Courses Required to fulfill the BA (14 credit hours)

6 credit hour of foreign language  
and the following language arts courses

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

## Major Course Requirements for Mathematics BS or BA Degree

Mathematics Courses Required (33 credit hours)

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

MATH 2280 - Ordinary Differential Equations **Credits: (3)**

MATH 3110 - Foundations of Algebra **Credits: (3)**

MATH 4110 - Modern Algebra I **Credits: (3)**

MATH 4120 - Modern Algebra II **Credits: (3)** or  
MATH 4320 - Topology **Credits: (3)**

MATH 4210 - Introductory Real Analysis I **Credits: (3)** and  
MATH 4220 - Introductory Real Analysis II **Credits: (3)**

### Mathematics Electives (at least 9 credit hours)

*Complete any upper division Mathematics courses (not including any required courses) so that required mathematics courses and mathematics electives total at least 42 credit hours.*

### Minor

*A minor is required or*

CS 1400 - Fundamentals of Programming **Credits: (4)**  
CS 1410 - Object-Oriented Programming **Credits: (4)**

**and one course chosen from:**

CS 2130 - Computational Structures **Credits: (4)**  
CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**  
CS 2450 - Software Engineering I **Credits: (4)**  
CS 2810 - Computer Architecture/Organization **Credits: (4)**  
MATH 4610 - Numerical Analysis I **Credits: (3)**

### Support Courses Required (10 credit hours)

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

### Graduate School Preparation

It is highly recommended that students planning on graduate work in Mathematics take Linear Algebra (MATH 3270) and Topology (MATH 4320) in addition to the above. See the Mathematics Department for counseling.

## Mathematics Teaching (BA)

### All Mathematics Majors

**Program Prerequisite:** Not required for Mathematics and Applied Mathematics majors. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Required only for the regular mathematics major.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 31-46 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); at least nine credit hours of upper division Mathematics must be completed at Weber State University.

## Advisement

All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the Regular or Applied mathematics emphases. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. PHYS 2210 will fulfill requirements for both the major and general education. PSY 1010 (3) in the Social Sciences area is recommended for the Mathematics Teaching emphasis.

## Language Courses Required to fulfill the BA (14 credit hours)

6 credit hour of foreign language  
and the following language arts courses

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

## Major Course Requirements for Mathematics Teaching BS or BA Degree

Mathematics Courses Required (48 credit hours)

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

MATH 2280 - Ordinary Differential Equations **Credits: (3)** or

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3110 - Foundations of Algebra **Credits: (3)** or

MATH 4110 - Modern Algebra I **Credits: (3)**

MTHE 2120 - Geometry from a Teaching Perspective **Credits: (3)**

MATH 3120 - Foundations of Euclidean and Non-Euclidean Geometry **Credits: (3)**

MATH 3160 - Number Theory **Credits: (3)**

MTHE 3060 - Probability and Statistics from a Teaching Perspective **Credits: (3)**

MATH 3410 - Probability and Statistics I **Credits: (3)**

MTHE 4110 - Algebra from a Teaching Perspective **Credits: (3)**

MTHE 3010 - Methods and Technology for Teaching Secondary Mathematics **Credits: (3)**

MATH 4210 - Introductory Real Analysis I **Credits: (3)**

One upper division MATH course not otherwise required **(3)**

## Support Courses Required (5-10 credit hours)

*Complete either*

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

**or**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

Note:

*A student must also complete requirements for a secondary education licensure as determined by the Jerry and Vickie Moyes College of Education.*

# Mathematics, Applied (BA)

## All Mathematics Majors

**Program Prerequisite:** Not required for Mathematics and Applied Mathematics majors. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Required only for the regular mathematics major.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 31-46 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); at least nine credit hours of upper division Mathematics must be completed at Weber State University.

## Advisement

All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the Regular or Applied mathematics emphases. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. PHYS 2210 will fulfill requirements for both the major and general education. PSY 1010 (3) in the Social Sciences area is recommended for the Mathematics Teaching emphasis.

## Language Courses Required to fulfill the BA (14 credit hours)

6 credit hours of foreign language *and the following language arts courses*

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

## Major Course Requirements for Applied Mathematics BS or BA Degree

The Applied Mathematics Program provides an opportunity for WSU students to apply mathematics to different fields. The program requires 19 credit hours of core lower division mathematics courses, a minimum of 12 credit hours of upper division applied mathematics courses and additional upper division courses in specified fields, including mathematics, so the total upper division credit hours reaches at least 40. To design a specific program different from the following tracks, students must get approval from a Mathematics Department advisor.

### Lower Division Mathematics Courses Required for All Tracks (19 credit hours)

MATH 1200 - Mathematics Computer Laboratory **Credits: (1)**

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

MATH 2280 - Ordinary Differential Equations **Credits: (3)**

#### 1. Regular Track

*A traditional diversified program in applied mathematics.*

Required Upper Division Mathematics Courses (12 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)** or

MATH 3280 - Dynamical Systems **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**

Mathematics Electives (at least 12 credit hours)

*Complete at least an additional 12 credit hours of upper division Mathematics courses.*

Support Courses Required (6-10 credit hours)

*Complete 2 calculus based courses outside the Mathematics Department, for example PHYS 2210 PS - Physics for Scientists and Engineers I (5), ECON 3030 - Managerial Economics (3), CHEM 3400 - Molecular Symmetry and Applied Math for Physical Chemistry (3), etc.*

Graduate School Preparation

It is recommended that students planning on graduate work in Applied Mathematics take MATH 4210/MATH 4220 - Introductory Real Analysis II and all Mathematics courses in the future area of graduate study. See the Mathematics Department for counseling.

## 2. Computing Track

Additional Required Lower Division Courses (12 credit hours)

CS 1400 - Fundamentals of Programming **Credits: (4)**

CS 1410 - Object-Oriented Programming **Credits: (4)**

CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)** or

MATH 1630 - Discrete Mathematics Applied to Computing **Credits: (4)**

Required Upper Division Mathematics Courses (15 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3610 - Graph Theory **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**

MATH 4620 - Numerical Analysis II **Credits: (3)** or

MATH 3620 - Enumeration **Credits: (3)**

Electives (at least 25 credit hours)

*Complete at least an additional 25 credit hours of upper division courses in Computer Science or Mathematics. At least 6 of these credit hours must be in Computer Science.*

## 3. Physical Mathematics Track

Required Upper Division Mathematics Courses (18 credit hours)

*Complete 6 of the following courses*

MATH 3280 - Dynamical Systems **Credits: (3)**

MATH 3410 - Probability and Statistics I **Credits: (3)**

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)**

MATH 3810 - Complex Variables **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**

MATH 4710 - Partial Differential Equations **Credits: (3)**

Electives (at least 22 credit hours)

*Complete at least an additional 22 credit hours of upper division courses in Chemistry, Geosciences, Mathematics, or Physics. At least 6 of these credit hours must be outside Mathematics.*

## 4. Engineering Mathematics Track

Required Upper Division Mathematics Courses (18 credit hours)

*Complete 6 of the following courses*

MATH 3280 - Dynamical Systems **Credits: (3)**

MATH 3410 - Probability and Statistics I **Credits: (3)**

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)**

MATH 3810 - Complex Variables **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**  
MATH 4620 - Numerical Analysis II **Credits: (3)**  
MATH 4710 - Partial Differential Equations **Credits: (3)**

Electives (at least 22 credit hours)

*Complete at least an additional 22 credit hours of upper division Mathematics or upper division courses from the Engineering Technology programs. At least 6 of these credit hours must be outside of Mathematics.*

## 5. Actuarial/Financial Mathematics Track

Required Upper Division Mathematics Courses (15 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**  
MATH 3420 - Probability and Statistics II **Credits: (3)**

And three of the following courses

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**  
MATH 3710 - Boundary Value Problems **Credits: (3)**  
MATH 4610 - Numerical Analysis I **Credits: (3)**  
MATH 4710 - Partial Differential Equations **Credits: (3)**

Electives (at least 25 credit hours)

*Complete at least an additional 25 credit hours of upper division Mathematics courses or courses from the list below offered by the John B. Goddard School of Business and Economics:*

ACTG 3110 - Intermediate Financial Accounting I **Credits: (3)**  
ACTG 3120 - Intermediate Financial Accounting II **Credits: (3)**  
ECON 3030 - Managerial Economics **Credits: (3)**  
ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**  
ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**  
ECON 4550 - Introduction to Econometrics **Credits: (3)**  
ECON 4560 - Mathematical Economics **Credits: (3)**  
FIN 3200 - Financial Management **Credits: (3)**  
FIN 3300 - Investments **Credits: (3)**  
FIN 4400 - Financial Problems - Corporate Finance **Credits: (3)**  
MGMT 3010 - Organizational Behavior and Management **Credits: (3)**  
MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**  
QUAN 3610 - Business Statistics II **Credits: (3)**

## 6. Natural/Life Sciences Track

Required Upper Division Mathematics Courses (12 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**  
MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)** or  
MATH 3280 - Dynamical Systems **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**

Electives (at least 28 credit hours)

*Complete at least an additional 28 credit hours of upper division courses in Botany, Mathematics, Microbiology or Zoology. At least 6 of these credit hours must be outside of Mathematics.*

## Mathematics (BS)

### All Mathematics Majors

**Program Prerequisite:** Not required for Mathematics and Applied Mathematics majors. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Required only for the regular mathematics major.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 31-46 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); at least nine credit hours of upper division Mathematics must be completed at Weber State University.

### Advisement

All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the Regular or Applied mathematics emphases. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

### General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. PHYS 2210 will fulfill requirements for both the major and general education. PSY 1010 (3) in the Social Sciences area is recommended for the Mathematics Teaching emphasis.

## Major Course Requirements for Mathematics BS or BA Degree

Mathematics Courses Required (33 credit hours)

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

MATH 2280 - Ordinary Differential Equations **Credits: (3)**

MATH 3110 - Foundations of Algebra **Credits: (3)**

MATH 4110 - Modern Algebra I **Credits: (3)**

MATH 4120 - Modern Algebra II **Credits: (3)** or  
MATH 4320 - Topology **Credits: (3)**

MATH 4210 - Introductory Real Analysis I **Credits: (3)** and  
MATH 4220 - Introductory Real Analysis II **Credits: (3)**

### Mathematics Electives (at least 9 credit hours)

*Complete any upper division Mathematics courses (not including any required courses) so that required mathematics courses and mathematics electives total at least 42 credit hours.*

### Minor

*A minor is required or*

CS 1400 - Fundamentals of Programming **Credits: (4)**  
CS 1410 - Object-Oriented Programming **Credits: (4)**

**and one course chosen from:**

CS 2130 - Computational Structures **Credits: (4)**  
CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**  
CS 2450 - Software Engineering I **Credits: (4)**  
CS 2810 - Computer Architecture/Organization **Credits: (4)**  
MATH 4610 - Numerical Analysis I **Credits: (3)**

### Support Courses Required (10 credit hours)

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

### Graduate School Preparation

It is highly recommended that students planning on graduate work in Mathematics take Linear Algebra (MATH 3270) and Topology (MATH 4320) in addition to the above. See the Mathematics Department for counseling.

## Mathematics Teaching (BS)

### All Mathematics Majors

**Program Prerequisite:** Not required for Mathematics and Applied Mathematics majors. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Required only for the regular mathematics major.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 31-46 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); at least nine credit hours of upper division Mathematics must be completed at Weber State University.

## Advisement

All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the Regular or Applied mathematics emphases. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. PHYS 2210 will fulfill requirements for both the major and general education. PSY 1010 (3) in the Social Sciences area is recommended for the Mathematics Teaching emphasis.

## Major Course Requirements for Mathematics Teaching BS or BA Degree

### Mathematics Courses Required (48 credit hours)

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

MATH 2280 - Ordinary Differential Equations **Credits: (3)** or

MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3110 - Foundations of Algebra **Credits: (3)** or

MATH 4110 - Modern Algebra I **Credits: (3)**

MTHE 2120 - Geometry from a Teaching Perspective **Credits: (3)**

MATH 3120 - Foundations of Euclidean and Non-Euclidean Geometry **Credits: (3)**

MATH 3160 - Number Theory **Credits: (3)**

MTHE 3060 - Probability and Statistics from a Teaching Perspective **Credits: (3)**

MATH 3410 - Probability and Statistics I **Credits: (3)**

MTHE 4110 - Algebra from a Teaching Perspective **Credits: (3)**

MTHE 3010 - Methods and Technology for Teaching Secondary Mathematics **Credits: (3)**

MATH 4210 - Introductory Real Analysis I **Credits: (3)**

One upper division MATH course not otherwise required **(3)**

### Support Courses Required (5-10 credit hours)

*Complete either*

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

**or**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

Note:

*A student must also complete requirements for a secondary education licensure as determined by the Jerry and Vickie Moyes College of Education.*

## Mathematics, Applied (BS)

### All Mathematics Majors

**Program Prerequisite:** Not required for Mathematics and Applied Mathematics majors. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Required only for the regular mathematics major.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes numbered 1210 or above.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; 31-46 of these are required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); at least nine credit hours of upper division Mathematics must be completed at Weber State University.

### Advisement

All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Call 801-626-6095 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Program of Study (Major/Minor) Declaration) with your advisor. There are no special admission or application requirements for the Regular or Applied mathematics emphases. Mathematics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

### General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. PHYS 2210 will fulfill requirements for both the major and general education. PSY 1010 (3) in the Social Sciences area is recommended for the Mathematics Teaching emphasis.

### Major Course Requirements for Applied Mathematics BS or BA Degree

The Applied Mathematics Program provides an opportunity for WSU students to apply mathematics to different fields. The program requires 19 credit hours of core lower division mathematics courses, a minimum of 12 credit hours of upper division applied mathematics courses and additional upper division courses in specified fields, including mathematics, so the total upper division credit hours reaches at least 40. To design a specific program different from the following tracks, students must get approval from a Mathematics Department advisor.

#### Lower Division Mathematics Courses Required for All Tracks (19 credit hours)

MATH 1200 - Mathematics Computer Laboratory **Credits: (1)**

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**  
MATH 2270 - Elementary Linear Algebra **Credits: (3)**  
MATH 2280 - Ordinary Differential Equations **Credits: (3)**

## 1. Regular Track

*A traditional diversified program in applied mathematics.*

Required Upper Division Mathematics Courses (12 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**  
MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)** or  
MATH 3280 - Dynamical Systems **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**

Mathematics Electives (at least 12 credit hours)

*Complete at least an additional 12 credit hours of upper division Mathematics courses.*

Support Courses Required (6-10 credit hours)

*Complete 2 calculus based courses outside the Mathematics Department, for example PHYS 2210 PS - Physics for Scientists and Engineers I (5), ECON 3030 - Managerial Economics (3), CHEM 3400 - Molecular Symmetry and Applied Math for Physical Chemistry (3), etc.*

Graduate School Preparation

It is recommended that students planning on graduate work in Applied Mathematics take MATH 4210/MATH 4220 - Introductory Real Analysis II and all Mathematics courses in the future area of graduate study. See the Mathematics Department for counseling.

## 2. Computing Track

Additional Required Lower Division Courses (12 credit hours)

CS 1400 - Fundamentals of Programming **Credits: (4)**  
CS 1410 - Object-Oriented Programming **Credits: (4)**

CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)** or  
MATH 1630 - Discrete Mathematics Applied to Computing **Credits: (4)**

Required Upper Division Mathematics Courses (15 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**  
MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**  
MATH 3610 - Graph Theory **Credits: (3)**  
MATH 4610 - Numerical Analysis I **Credits: (3)**

MATH 4620 - Numerical Analysis II **Credits: (3)** or  
MATH 3620 - Enumeration **Credits: (3)**

Electives (at least 25 credit hours)

*Complete at least an additional 25 credit hours of upper division courses in Computer Science or Mathematics. At least 6 of these credit hours must be in Computer Science.*

### 3. Physical Mathematics Track

Required Upper Division Mathematics Courses (18 credit hours)

*Complete 6 of the following courses*

- MATH 3280 - Dynamical Systems **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**
- MATH 3710 - Boundary Value Problems **Credits: (3)**
- MATH 3810 - Complex Variables **Credits: (3)**
- MATH 4610 - Numerical Analysis I **Credits: (3)**
- MATH 4710 - Partial Differential Equations **Credits: (3)**

Electives (at least 22 credit hours)

*Complete at least an additional 22 credit hours of upper division courses in Chemistry, Geosciences, Mathematics, or Physics. At least 6 of these credit hours must be outside Mathematics.*

### 4. Engineering Mathematics Track

Required Upper Division Mathematics Courses (18 credit hours)

*Complete 6 of the following courses*

- MATH 3280 - Dynamical Systems **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**
- MATH 3710 - Boundary Value Problems **Credits: (3)**
- MATH 3810 - Complex Variables **Credits: (3)**
- MATH 4610 - Numerical Analysis I **Credits: (3)**
- MATH 4620 - Numerical Analysis II **Credits: (3)**
- MATH 4710 - Partial Differential Equations **Credits: (3)**

Electives (at least 22 credit hours)

*Complete at least an additional 22 credit hours of upper division Mathematics or upper division courses from the Engineering Technology programs. At least 6 of these credit hours must be outside of Mathematics.*

### 5. Actuarial/Financial Mathematics Track

Required Upper Division Mathematics Courses (15 credit hours)

- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MATH 3420 - Probability and Statistics II **Credits: (3)**

And three of the following courses

- MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)**  
MATH 4610 - Numerical Analysis I **Credits: (3)**  
MATH 4710 - Partial Differential Equations **Credits: (3)**

Electives (at least 25 credit hours)

*Complete at least an additional 25 credit hours of upper division Mathematics courses or courses from the list below offered by the John B. Goddard School of Business and Economics:*

ACTG 3110 - Intermediate Financial Accounting I **Credits: (3)**  
ACTG 3120 - Intermediate Financial Accounting II **Credits: (3)**  
ECON 3030 - Managerial Economics **Credits: (3)**  
ECON 4010 - Intermediate Microeconomic Theory **Credits: (3)**  
ECON 4020 - Intermediate Macroeconomic Theory **Credits: (3)**  
ECON 4550 - Introduction to Econometrics **Credits: (3)**  
ECON 4560 - Mathematical Economics **Credits: (3)**  
FIN 3200 - Financial Management **Credits: (3)**  
FIN 3300 - Investments **Credits: (3)**  
FIN 4400 - Financial Problems - Corporate Finance **Credits: (3)**  
MGMT 3010 - Organizational Behavior and Management **Credits: (3)**  
MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**  
QUAN 3610 - Business Statistics II **Credits: (3)**

## 6. Natural/Life Sciences Track

Required Upper Division Mathematics Courses (12 credit hours)

MATH 3410 - Probability and Statistics I **Credits: (3)**  
MATH 3550 - Introduction to Mathematical Modeling **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)** or  
MATH 3280 - Dynamical Systems **Credits: (3)**

MATH 4610 - Numerical Analysis I **Credits: (3)**

Electives (at least 28 credit hours)

*Complete at least an additional 28 credit hours of upper division courses in Botany, Mathematics, Microbiology or Zoology. At least 6 of these credit hours must be outside of Mathematics.*

# Mathematics Minor

## Mathematics

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 20 credit hours for regular emphasis and 26 credit hours for Mathematics Teaching minor. At least one upper-division mathematics course for three credit hours must be completed at Weber State University.

*Students who select the Mathematics Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department).*

## Course Requirements for Mathematics Minor (Regular Emphasis)

Mathematics Courses Required (11 credit hours)

- MATH 1210 - Calculus I **Credits: (4)**
- MATH 1220 - Calculus II **Credits: (4)**
- MATH 2270 - Elementary Linear Algebra **Credits: (3)**

Electives (9-10 credit hours)

*Take three courses chosen from the following:*

- MATH 2210 - Calculus III **Credits: (4)**
- MATH 2280 - Ordinary Differential Equations **Credits: (3)**
- any upper division mathematics courses (courses numbered 3000 and higher)

## Mathematics Teaching Minor

### Mathematics

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 20 credit hours for regular emphasis and 26 credit hours for Mathematics Teaching minor. At least one upper-division mathematics course for three credit hours must be completed at Weber State University.

*Students who select the Mathematics Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department).*

### Course Requirements for Mathematics Teaching Minor

Mathematics Courses Required (26 credit hours)

- MATH 1210 - Calculus I **Credits: (4)**
- MATH 1220 - Calculus II **Credits: (4)**
- MTHE 2120 - Geometry from a Teaching Perspective **Credits: (3)**
- MATH 2270 - Elementary Linear Algebra **Credits: (3)**
  
- MATH 3110 - Foundations of Algebra **Credits: (3)** or
- MATH 4110 - Modern Algebra I **Credits: (3)**
  
- MATH 3120 - Foundations of Euclidean and Non-Euclidean Geometry **Credits: (3)**
- MATH 3410 - Probability and Statistics I **Credits: (3)**
- MTHE 3010 - Methods and Technology for Teaching Secondary Mathematics **Credits: (3)**

# Mathematics Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Microbiology

**Department Chair:** Matthew Domek

**Location:** Tracy Hall Science Center, Room 302M

**Telephone:** Katie Nelson, 801-626-6949

**Professors:** Matthew Crook, Michele Culumber, Matthew Domek, William Lorowitz, Karen Nakaoka, Craig Oberg, Mohammad Sondossi; **Assistant Professor:** Matthew Crook; **Visiting Assistant Professor:** Daniel Clark

Microbiology is the study of microorganisms (bacteria, viruses, algae, fungi, and protozoa) including their structure, metabolism, distribution, and ecological relationships. Knowledge gained by microbiologists leads to a better understanding of molecular-level life processes and to beneficial applications in agriculture, industry, and medicine. The field is expanding, with special emphasis being given to genetic engineering, biotechnology, cell culture, disease and the immune response, production and storage of food, research and development and quality assurance of industrial products, disposal and detoxification of wastes, and the monitoring of environmental quality.

## Pre-Medical, Pre-Dental, and Pre-Physician Assistant Emphasis, Microbiology

### Microbiology Major

**Program Prerequisite:** Not required.

**Minor:** Not required. However, a Microbiology Minor is offered. Please see "Microbiology Minor" for requirements.

**Grade Requirements:** An overall GPA of 2.00 or higher in Microbiology courses is required for this major in addition to an overall GPA of 2.00 or higher. Also refer to the General Grade Requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 71 credits is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

### Advisement

All Microbiology students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6949 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admissions Requirements

Declare your program of study with the Microbiology Department. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses are required for the Microbiology major and also will satisfy general education requirements: MICR 2054 LS - Principles of Microbiology, CHEM 1210 PS - Principles of Chemistry I, PHYS 1010 PS - Elementary Physics or PHYS 2010 PS - College Physics I.

## Major Course Requirements for BS Degree

### REQUIRED MICROBIOLOGY MAJOR COURSES (19 credit hours)

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

MICR 3053 - Microbiological Procedures **Credits: (3)**

MICR 3154 - Microbial Ecology **Credits: (4)**

MICR 4054 - Microbial Physiology **Credits: (4)**

MICR 4154 - Microbial Genetics **Credits: (4)**

### General Microbiology Electives (20 credit hours)

*Select 20 credit hours from the following categories A-C:*

#### Category A: Upper-division Microbiology Courses (minimum 8 credit hours)

MICR 3012 - Microbiology and Global Public Health **Credits: (2)**

MICR 3254 - Immunology **Credits: (4)**

MICR 3305 - Medical Microbiology **Credits: (5)**

MICR 3403 - Tropical Diseases **Credits: (3)**

MICR 3484 - Environmental Microbiology **Credits: (4)**

MICR 3502 - Environmental Health **Credits: (2)**

MICR 3753 - Geomicrobiology **Credits: (3)**

MICR 3853 - Food Microbiology **Credits: (3)**

MICR 4252 - Cell Culture **Credits: (2)**

MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**

MICR 4554 - Virology **Credits: (4)**

#### Category B: Experience in Microbiology Courses

MICR 2600 - Laboratory Safety **Credits: (1)** or

CHEM 2600 - Laboratory Safety **Credits: (1)**

MICR 2920 - Short Courses, Workshop, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)

MICR 4800 - Directed Research **Credits: (1-2)** \*

MICR 4830 - Directed Readings **Credits: (1-2)** \*

MICR 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)

MICR 4991 - Microbiology Seminar **Credits: (1)**

*\*No more than 3 credit hours of MICR 4800 and no more than 2 credit hours of MICR 4830 may count toward the major.*

#### Category C: Other elective courses in the College of Science (maximum 8 credit hours)

BTNY 3303 - Plant Genetics **Credits: (3)**

BTNY 3504 - Mycology **Credits: (4)**

BTNY 3514 - Algology **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

REQUIRED MICROBIOLOGY SUPPORT COURSES (32-35 credit hours)

*A grade of D- or better is required in each support course.*

CHEMISTRY (19 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 3070 - Biochemistry I **Credits: (3)** and  
CHEM 3075 - Biochemistry I Lab **Credits: (1)**

MATH (minimum of 1 course from the following)

MATH 1050 QL - College Algebra **Credits: (4)** or  
MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)**

PHYSICS (minimum of 1 course from the following)

PHYS 1010 PS - Elementary Physics **Credits: (3)** or  
PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2020 - College Physics II **Credits: (5)** or  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** or  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

LIFE SCIENCE COURSE ELECTIVES (minimum 6 credit hours)

*Minimum of 6 credit hours from two Life Science courses in the following:*

BOTANY

BTNY 1203 LS - Plant Biology **Credits: (3)**  
BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

ZOOLOGY

ZOOL 1010 LS - Animal Biology **Credits: (3)**  
ZOOL 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**  
ZOOL 3450 - Ecology **Credits: (4)**  
ZOOL 3470 - Zoogeography **Credits: (3)**  
ZOOL 3500 - Conservation Biology **Credits: (3)**

ZOOL 3720 - Evolution **Credits: (3)**  
ZOOL 3730 - Population Biology **Credits: (3)**  
ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
ZOOL 4100 - Vertebrate Embryology **Credits: (4)**  
ZOOL 4120 - Histology **Credits: (4)**  
ZOOL 4210 - Advanced Human Physiology **Credits: (4)**  
ZOOL 4220 - Endocrinology **Credits: (4)**  
ZOOL 4250 - Radiation Biology **Credits: (4)**  
ZOOL 4300 - Molecular Genetics **Credits: (4)**  
ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)**  
ZOOL 4480 - Aquatic Ecology **Credits: (4)**  
ZOOL 4490 - Marine Ecology **Credits: (4)**  
ZOOL 4500 - Parasitology **Credits: (4)**  
ZOOL 4600 - Protozoology **Credits: (4)**  
ZOOL 4640 - Entomology **Credits: (4)**  
ZOOL 4650 - Ichthyology **Credits: (4)**  
ZOOL 4660 - Herpetology **Credits: (4)**  
ZOOL 4670 - Ornithology **Credits: (4)**  
ZOOL 4680 - Mammalogy **Credits: (4)**

## Special Emphases

Students considering application to medical, dental, veterinary, physical therapy, optometry and pharmacy schools should consult the beginning of the College of Science section of this catalog. Furthermore, they should meet with the advisors of these programs, each of whom is listed in that section. The Department of Microbiology offers lower and upper level courses that provide superb training for examinations such as the Medical College Admissions Test, as well as medical school courses. Students should meet with the appropriate advisor for specific course suggestions. For information see [weber.edu/premedicalprofessionalprograms](http://weber.edu/premedicalprofessionalprograms).

*Medical schools do not accept AP or CLEP credits in English or science courses.*

## Biotechnology or Industrial Microbiology Emphasis, Microbiology (BS)

*Microbiology majors pursuing this emphasis should consult the appropriate advisor and include the specified Core and Elective Emphasis courses into their Microbiology Major. The below listed Core and Elective courses for this emphasis will complete the required 20 credit hours for the "Microbiology Elective Courses" requirements. Students still need to fulfill the REQUIRED MICROBIOLOGY COURSES (19 credit hours), MICROBIOLOGY REQUIRED SUPPORT COURSES (32-35 credit hours), and LIFE SCIENCE COURSE ELECTIVES (minimum of 6 credit hours). Please note that emphases are not a major. Your major will be Microbiology with a specific emphasis.*

*Students interested in Graduate School should discuss their plans with the major advisor.*

## Microbiology Major

**Program Prerequisite:** Not required.

**Minor:** Not required. However, a Microbiology Minor is offered. Please see "Microbiology Minor" for requirements.

**Grade Requirements:** An overall GPA of 2.00 or higher in Microbiology courses is required for this major in addition to an overall GPA of 2.00 or higher. Also refer to the General Grade Requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 71 credits is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

## Advisement

All Microbiology students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6949 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admissions Requirements

Declare your program of study with the Microbiology Department. No special admission or application requirements are needed for this program.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses are required for the Microbiology major and also will satisfy general education requirements: MICR 2054 LS - Principles of Microbiology, CHEM 1210 PS - Principles of Chemistry I, PHYS 1010 PS - Elementary Physics or PHYS 2010 PS - College Physics I.

## Major Course Requirements for BS Degree

### REQUIRED MICROBIOLOGY MAJOR COURSES (19 credit hours)

- MICR 2054 LS - Principles of Microbiology **Credits: (4)**
- MICR 3053 - Microbiological Procedures **Credits: (3)**
- MICR 3154 - Microbial Ecology **Credits: (4)**
- MICR 4054 - Microbial Physiology **Credits: (4)**
- MICR 4154 - Microbial Genetics **Credits: (4)**

General Microbiology Electives (20 credit hours)

*Select 20 credit hours from the following categories A-C:*

Category A: Upper-division Microbiology Courses (minimum 8 credit hours)

- MICR 3012 - Microbiology and Global Public Health **Credits: (2)**
- MICR 3254 - Immunology **Credits: (4)**
- MICR 3305 - Medical Microbiology **Credits: (5)**
- MICR 3403 - Tropical Diseases **Credits: (3)**
- MICR 3484 - Environmental Microbiology **Credits: (4)**
- MICR 3502 - Environmental Health **Credits: (2)**
- MICR 3753 - Geomicrobiology **Credits: (3)**
- MICR 3853 - Food Microbiology **Credits: (3)**
- MICR 4252 - Cell Culture **Credits: (2)**
- MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**
- MICR 4554 - Virology **Credits: (4)**

Category B: Experience in Microbiology Courses

- MICR 2600 - Laboratory Safety **Credits: (1)** or
- CHEM 2600 - Laboratory Safety **Credits: (1)**

- MICR 2920 - Short Courses, Workshop, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)
- MICR 4800 - Directed Research **Credits: (1-2)** \*
- MICR 4830 - Directed Readings **Credits: (1-2)** \*
- MICR 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)
- MICR 4991 - Microbiology Seminar **Credits: (1)**

*\*No more than 3 credit hours of MICR 4800 and no more than 2 credit hours of MICR 4830 may count toward the major.*

Category C: Other elective courses in the College of Science (maximum 8 credit hours)

BTNY 3303 - Plant Genetics **Credits: (3)**

BTNY 3504 - Mycology **Credits: (4)**

BTNY 3514 - Algology **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

REQUIRED MICROBIOLOGY SUPPORT COURSES (32-35 credit hours)

*A grade of D- or better is required in each support course.*

CHEMISTRY (19 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 3070 - Biochemistry I **Credits: (3)** and  
CHEM 3075 - Biochemistry I Lab **Credits: (1)**

MATH (minimum of 1 course from the following)

MATH 1050 QL - College Algebra **Credits: (4)** or  
MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)**

PHYSICS (minimum of 1 course from the following)

PHYS 1010 PS - Elementary Physics **Credits: (3)** or  
PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2020 - College Physics II **Credits: (5)** or  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** or  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

LIFE SCIENCE COURSE ELECTIVES (minimum 6 credit hours)

*Minimum of 6 credit hours from two Life Science courses in the following:*

BOTANY

BTNY 1203 LS - Plant Biology **Credits: (3)**  
BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**

BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

## ZOOLOGY

ZOOL 1010 LS - Animal Biology **Credits: (3)**  
ZOOL 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**  
ZOOL 3450 - Ecology **Credits: (4)**  
ZOOL 3470 - Zoogeography **Credits: (3)**  
ZOOL 3500 - Conservation Biology **Credits: (3)**  
ZOOL 3720 - Evolution **Credits: (3)**  
ZOOL 3730 - Population Biology **Credits: (3)**  
ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
ZOOL 4100 - Vertebrate Embryology **Credits: (4)**  
ZOOL 4120 - Histology **Credits: (4)**  
ZOOL 4210 - Advanced Human Physiology **Credits: (4)**  
ZOOL 4220 - Endocrinology **Credits: (4)**  
ZOOL 4250 - Radiation Biology **Credits: (4)**  
ZOOL 4300 - Molecular Genetics **Credits: (4)**  
ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)**  
ZOOL 4480 - Aquatic Ecology **Credits: (4)**  
ZOOL 4490 - Marine Ecology **Credits: (4)**  
ZOOL 4500 - Parasitology **Credits: (4)**  
ZOOL 4600 - Protozoology **Credits: (4)**  
ZOOL 4640 - Entomology **Credits: (4)**  
ZOOL 4650 - Ichthyology **Credits: (4)**  
ZOOL 4660 - Herpetology **Credits: (4)**  
ZOOL 4670 - Ornithology **Credits: (4)**  
ZOOL 4680 - Mammalogy **Credits: (4)**

## Special Emphases in Biotechnology or Industrial Microbiology

Microbiology majors pursuing these emphases should consult appropriate advisors and include the specified courses listed below while fulfilling the requirements for the Microbiology major.

MICR 3484 - Environmental Microbiology **Credits: (4)**  
MICR 3853 - Food Microbiology **Credits: (3)**  
MICR 4252 - Cell Culture **Credits: (2)**  
MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**  
ZOOL 3300 - Genetics **Credits: (4)**

and consider the following

BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
CHEM 3050 - Instrumental Analysis **Credits: (4)**

# Microbiology (BS)

## Microbiology Major

**Program Prerequisite:** Not required.

**Minor:** Not required. However, a Microbiology Minor is offered. Please see "Microbiology Minor" for requirements.

**Grade Requirements:** An overall GPA of 2.00 or higher in Microbiology courses is required for this major in addition to an overall GPA of 2.00 or higher. Also refer to the General Grade Requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 71 credits is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

### Advisement

All Microbiology students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6949 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admissions Requirements

Declare your program of study with the Microbiology Department. No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses are required for the Microbiology major and also will satisfy general education requirements: MICR 2054 LS - Principles of Microbiology, CHEM 1210 PS - Principles of Chemistry I, PHYS 1010 PS - Elementary Physics or PHYS 2010 PS - College Physics I.

### Major Course Requirements for BS Degree

REQUIRED MICROBIOLOGY MAJOR COURSES (19 credit hours)

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

MICR 3053 - Microbiological Procedures **Credits: (3)**

MICR 3154 - Microbial Ecology **Credits: (4)**

MICR 4054 - Microbial Physiology **Credits: (4)**

MICR 4154 - Microbial Genetics **Credits: (4)**

General Microbiology Electives (20 credit hours)

*Select 20 credit hours from the following categories A-C:*

Category A: Upper-division Microbiology Courses (minimum 8 credit hours)

MICR 3012 - Microbiology and Global Public Health **Credits: (2)**

MICR 3254 - Immunology **Credits: (4)**

MICR 3305 - Medical Microbiology **Credits: (5)**

MICR 3403 - Tropical Diseases **Credits: (3)**

MICR 3484 - Environmental Microbiology **Credits: (4)**

MICR 3502 - Environmental Health **Credits: (2)**

MICR 3753 - Geomicrobiology **Credits: (3)**

MICR 3853 - Food Microbiology **Credits: (3)**

MICR 4252 - Cell Culture **Credits: (2)**  
MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**  
MICR 4554 - Virology **Credits: (4)**

Category B: Experience in Microbiology Courses

MICR 2600 - Laboratory Safety **Credits: (1)** or  
CHEM 2600 - Laboratory Safety **Credits: (1)**

MICR 2920 - Short Courses, Workshop, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)  
MICR 4800 - Directed Research **Credits: (1-2)** \*  
MICR 4830 - Directed Readings **Credits: (1-2)** \*  
MICR 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)  
MICR 4991 - Microbiology Seminar **Credits: (1)**

*\*No more than 3 credit hours of MICR 4800 and no more than 2 credit hours of MICR 4830 may count toward the major.*

Category C: Other elective courses in the College of Science (maximum 8 credit hours)

BTNY 3303 - Plant Genetics **Credits: (3)**  
BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
ZOOL 3200 - Cell Biology **Credits: (4)**  
ZOOL 3300 - Genetics **Credits: (4)**

REQUIRED MICROBIOLOGY SUPPORT COURSES (32-35 credit hours)

*A grade of D- or better is required in each support course.*

CHEMISTRY (19 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 3070 - Biochemistry I **Credits: (3)** and  
CHEM 3075 - Biochemistry I Lab **Credits: (1)**

MATH (minimum of 1 course from the following)

MATH 1050 QL - College Algebra **Credits: (4)** or  
MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)**

PHYSICS (minimum of 1 course from the following)

PHYS 1010 PS - Elementary Physics **Credits: (3)** or  
PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2020 - College Physics II **Credits: (5)** or  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** or  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

## LIFE SCIENCE COURSE ELECTIVES (minimum 6 credit hours)

*Minimum of 6 credit hours from two Life Science courses in the following:*

### BOTANY

- BTNY 1203 LS - Plant Biology **Credits: (3)**
- BTNY 2104 - Plant Form and Function **Credits: (4)**
- BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**
- BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**
- BTNY 3204 - Plant Physiology **Credits: (4)**
- BTNY 3214 - Soils **Credits: (4)**
- BTNY 3454 - Plant Ecology **Credits: (4)**
- BTNY 3473 - Plant Geography **Credits: (3)**
- BTNY 3523 - Marine Biology **Credits: (3)**
- BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

### ZOOLOGY

- ZOOL 1010 LS - Animal Biology **Credits: (3)**
- ZOOL 1110 LS - Principles of Zoology **Credits: (4)**
- ZOOL 2100 - Human Anatomy **Credits: (4)**
- ZOOL 2200 LS - Human Physiology **Credits: (4)**
- ZOOL 3450 - Ecology **Credits: (4)**
- ZOOL 3470 - Zoogeography **Credits: (3)**
- ZOOL 3500 - Conservation Biology **Credits: (3)**
- ZOOL 3720 - Evolution **Credits: (3)**
- ZOOL 3730 - Population Biology **Credits: (3)**
- ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**
- ZOOL 4100 - Vertebrate Embryology **Credits: (4)**
- ZOOL 4120 - Histology **Credits: (4)**
- ZOOL 4210 - Advanced Human Physiology **Credits: (4)**
- ZOOL 4220 - Endocrinology **Credits: (4)**
- ZOOL 4250 - Radiation Biology **Credits: (4)**
- ZOOL 4300 - Molecular Genetics **Credits: (4)**
- ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)**
- ZOOL 4480 - Aquatic Ecology **Credits: (4)**
- ZOOL 4490 - Marine Ecology **Credits: (4)**
- ZOOL 4500 - Parasitology **Credits: (4)**
- ZOOL 4600 - Protozoology **Credits: (4)**
- ZOOL 4640 - Entomology **Credits: (4)**
- ZOOL 4650 - Ichthyology **Credits: (4)**
- ZOOL 4660 - Herpetology **Credits: (4)**
- ZOOL 4670 - Ornithology **Credits: (4)**
- ZOOL 4680 - Mammalogy **Credits: (4)**

## Microbiology Special Emphases

Microbiology majors pursuing emphases should consult the appropriate advisor and include the specified Core and Elective Emphasis courses into their Microbiology Major. Regardless of the chosen emphasis, students must successfully complete the REQUIRED MICROBIOLOGY COURSES (19 credit hours), MICROBIOLOGY ELECTIVE COURSES (20 credit hours) [the 20 credit hours will be fulfilled through the specific emphasis] MICROBIOLOGY REQUIRED SUPPORT COURSES (32-35 credit hours), and LIFE SCIENCE COURSE ELECTIVES (minimum of 6 credit hours). Please note that emphases are not a major. Your major will be Microbiology with a specific emphasis.

The emphases areas are as follows:

Biotechnology or Industrial Microbiology Emphasis, Microbiology (BS)  
Public Health Emphasis, Microbiology (BS)

If you desire an emphasis, please select one of three emphases that are offered. Students interested in Graduate School should discuss their plans with the major advisor.

## Public Health Emphasis, Microbiology (BS)

*Microbiology majors pursuing this emphasis should consult the appropriate advisor and include the specified Core and Elective Emphasis courses into their Microbiology Major. The below listed Core and Elective courses for this emphasis will complete the required 20 credit hours for the "Microbiology Elective Courses" requirements. Students still need to fulfill the REQUIRED MICROBIOLOGY COURSES (19 credit hours), MICROBIOLOGY REQUIRED SUPPORT COURSES (32-35 credit hours), and LIFE SCIENCE COURSE ELECTIVES (minimum of 6 credit hours). Please note that emphases are not a major. Your major will be Microbiology with a specific emphasis.*

*Students interested in Graduate School should discuss their plans with the major advisor.*

## Microbiology Major

**Program Prerequisite:** Not required.

**Minor:** Not required. However, a Microbiology Minor is offered. Please see "Microbiology Minor" for requirements.

**Grade Requirements:** An overall GPA of 2.00 or higher in Microbiology courses is required for this major in addition to an overall GPA of 2.00 or higher. Also refer to the General Grade Requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 71 credits is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above).

### Advisement

All Microbiology students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6949 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admissions Requirements

Declare your program of study with the Microbiology Department. No special admission or application requirements are needed for this program.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses are required for the Microbiology major and also will satisfy general education requirements: MICR 2054 LS - Principles of Microbiology, CHEM 1210 PS - Principles of Chemistry I, PHYS 1010 PS - Elementary Physics or PHYS 2010 PS - College Physics I.

### Major Course Requirements for BS Degree

REQUIRED MICROBIOLOGY MAJOR COURSES (19 credit hours)

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

MICR 3053 - Microbiological Procedures **Credits: (3)**  
MICR 3154 - Microbial Ecology **Credits: (4)**  
MICR 4054 - Microbial Physiology **Credits: (4)**  
MICR 4154 - Microbial Genetics **Credits: (4)**

General Microbiology Electives (20 credit hours)

*Select 20 credit hours from the following categories A-C:*

Category A: Upper-division Microbiology Courses (minimum 8 credit hours)

MICR 3012 - Microbiology and Global Public Health **Credits: (2)**  
MICR 3254 - Immunology **Credits: (4)**  
MICR 3305 - Medical Microbiology **Credits: (5)**  
MICR 3403 - Tropical Diseases **Credits: (3)**  
MICR 3484 - Environmental Microbiology **Credits: (4)**  
MICR 3502 - Environmental Health **Credits: (2)**  
MICR 3753 - Geomicrobiology **Credits: (3)**  
MICR 3853 - Food Microbiology **Credits: (3)**  
MICR 4252 - Cell Culture **Credits: (2)**  
MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**  
MICR 4554 - Virology **Credits: (4)**

Category B: Experience in Microbiology Courses

MICR 2600 - Laboratory Safety **Credits: (1)** or  
CHEM 2600 - Laboratory Safety **Credits: (1)**

MICR 2920 - Short Courses, Workshop, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)  
MICR 4800 - Directed Research **Credits: (1-2)** \*  
MICR 4830 - Directed Readings **Credits: (1-2)** \*  
MICR 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** (1 credit hour required)  
MICR 4991 - Microbiology Seminar **Credits: (1)**

*\*No more than 3 credit hours of MICR 4800 and no more than 2 credit hours of MICR 4830 may count toward the major.*

Category C: Other elective courses in the College of Science (maximum 8 credit hours)

BTNY 3303 - Plant Genetics **Credits: (3)**  
BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
ZOOL 3200 - Cell Biology **Credits: (4)**  
ZOOL 3300 - Genetics **Credits: (4)**

REQUIRED MICROBIOLOGY SUPPORT COURSES (32-35 credit hours)

*A grade of D- or better is required in each support course.*

CHEMISTRY (19 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 3070 - Biochemistry I **Credits: (3)** and  
CHEM 3075 - Biochemistry I Lab **Credits: (1)**

MATH (minimum of 1 course from the following)

MATH 1050 QL - College Algebra **Credits: (4)** or  
MATH 1080 QL - Pre-calculus **Credits: (5)** or  
MATH 1210 - Calculus I **Credits: (4)**

PHYSICS (minimum of 1 course from the following)

PHYS 1010 PS - Elementary Physics **Credits: (3)** or  
PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2020 - College Physics II **Credits: (5)** or  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** or  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

LIFE SCIENCE COURSE ELECTIVES (minimum 6 credit hours)

*Minimum of 6 credit hours from two Life Science courses in the following:*

BOTANY

BTNY 1203 LS - Plant Biology **Credits: (3)**  
BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3473 - Plant Geography **Credits: (3)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**

ZOOLOGY

ZOOL 1010 LS - Animal Biology **Credits: (3)**  
ZOOL 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**  
ZOOL 3450 - Ecology **Credits: (4)**  
ZOOL 3470 - Zoogeography **Credits: (3)**  
ZOOL 3500 - Conservation Biology **Credits: (3)**  
ZOOL 3720 - Evolution **Credits: (3)**  
ZOOL 3730 - Population Biology **Credits: (3)**  
ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
ZOOL 4100 - Vertebrate Embryology **Credits: (4)**  
ZOOL 4120 - Histology **Credits: (4)**  
ZOOL 4210 - Advanced Human Physiology **Credits: (4)**  
ZOOL 4220 - Endocrinology **Credits: (4)**  
ZOOL 4250 - Radiation Biology **Credits: (4)**  
ZOOL 4300 - Molecular Genetics **Credits: (4)**  
ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)**  
ZOOL 4480 - Aquatic Ecology **Credits: (4)**  
ZOOL 4490 - Marine Ecology **Credits: (4)**

ZOOL 4500 - Parasitology **Credits: (4)**  
ZOOL 4600 - Protozoology **Credits: (4)**  
ZOOL 4640 - Entomology **Credits: (4)**  
ZOOL 4650 - Ichthyology **Credits: (4)**  
ZOOL 4660 - Herpetology **Credits: (4)**  
ZOOL 4670 - Ornithology **Credits: (4)**  
ZOOL 4680 - Mammalogy **Credits: (4)**

## Special Emphasis in Public Health, Microbiology

Microbiology majors pursuing this emphasis should consult appropriate advisors and include the specified courses listed below while fulfilling the requirements for the Microbiology major.

MICR 3254 - Immunology **Credits: (4)**  
MICR 3305 - Medical Microbiology **Credits: (5)**  
MICR 3403 - Tropical Diseases **Credits: (3)**  
MICR 3502 - Environmental Health **Credits: (2)**  
MICR 3853 - Food Microbiology **Credits: (3)**  
MICR 4354 - Industrial Microbiology and Biotechnology **Credits: (4)**

## Microbiology Minor

**Grade Requirements:** A grade of "C-" or better in courses used toward the minor.

**Credit Hour Requirements:** Minimum of 18 hours in Microbiology courses, MICR 2054 LS and above.

## Microbiology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Physics

**Department Chair:** Colin Inglefield

**Location:** Tracy Hall Science Center, Room 302

**Telephone:** Nereyda Hesterberg 801-626-6163

**Web Site:** [weber.edu/physics](http://weber.edu/physics)

**Professors:** John Armstrong, Colin Inglefield, Adam Johnston, Stacy Palen, Daniel Schroeder, John Sohl, Walther Spjeldvik; **Associate Professors:** Michelle Arnold; **Assistant Professor:** Kristin Rabosky; **Visiting Professor:** Kelly Spirito

Physics is the study and application of the fundamental laws of nature, including the laws of motion, gravity, electromagnetism, heat, and microscopic interactions. These laws govern the behavior of objects at all scales, from the smallest subatomic particles to the entire observable universe. In between, physicists study nuclear reactions, the

interaction of atoms with light, properties of materials, the chaotic dynamics of fluids, and the evolution of stars and galaxies, among many other applications.

Our courses in physics introduce all of the most important fundamental laws and many of their applications. Equally valuable, however, are the skills that students develop in these courses, from analytical thinking and problem solving to experimental design and interpretation. Majoring in physics can thus prepare a student for a variety of careers in research, education, business, industry, and government.

The Department offers three major programs: Physics, Applied Physics, and Physics Teaching. The Physics major places emphasis on understanding nature at the deepest possible level, and offers options that emphasize fundamental theoretical physics, astrophysics, computational physics, and physics of materials. Each of these options provides a strong foundation for graduate work. The Applied Physics major places more emphasis on physical phenomena and hands-on experience. Thus, it is more suitable for those planning to go either directly into industrial employment or into graduate programs in certain applied fields. The Physics Teaching major is designed specifically for those planning to teach physics at the secondary school level.

Students who are majoring in other disciplines are encouraged to consider a minor in physics, which includes a year of introductory physics plus eight credit hours of additional physics courses. These electives may be chosen to emphasize basic theory, experimental techniques, or applied subfields such as optics and astrophysics.

## Physical Science Composite Teaching (BS)

**Program Prerequisite:** Composite Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Not required.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation on Degree Requirements.

**Credit Hour Requirements:** A total of 120 credit hours are required for graduation; a minimum of 69 of these is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); a minimum of 13 of these is required within the major.

### Advisement

Teaching majors are encouraged to consult with advisors in both the College of Science (call 801-626-6160) and the College of Education (call 801-626-6269). (Also refer to the Department Advisor Referral List.) Students in this program should work closely with their advisor to ensure their teaching endorsements in multiple subject areas within physical science.

### Admission Requirements

Declare your program of study. Physical Science Composite Teaching majors must satisfy Teacher Education admission and licensure requirements (see Teacher Education Department).

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for this major will satisfy physical science general education requirements: CHEM 1210, GEO 1110 and PHYS 2210.

## Major Course Requirements for BS Degree

### Required Courses (minimum of 69 credit hours)

#### Physics Courses (19 credit hours)

PHYS 1040 PS - Elementary Astronomy **Credits: (3)**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

Physics electives PHYS 2300 and above **(6)**

#### Geology Courses (17 credit hours)

GEO 1060 PS - Environmental Geosciences **Credits: (3)**

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**

GEO 1115 - Physical Geology Lab **Credits: (1)**

GEO 1130 PS - Introduction to Meteorology **Credits: (3)**

GEO 1220 - Historical Geology **Credits: (4)**

GEO 3010 - Oceanography and Earth Systems **Credits: (3)** or

GEO 3210 - Quaternary Environmental Change **Credits: (3)**

#### Chemistry Courses (14-15 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)** and

CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

**or**

CHEM 3000 - Quantitative Analysis **Credits: (4)**

#### General Science Courses (8 credit hours)

PHYS 2600 - Laboratory Safety **Credits: (1)** or

CHEM 2600 - Laboratory Safety **Credits: (1)** or

GEO 2600 - Laboratory Safety **Credits: (1)**

PHYS 3570 - Foundations of Science Education **Credits: (3)** or

CHEM 3570 - Foundations of Science Education **Credits: (3)** or

GEO 3570 - Foundations of Science Education **Credits: (3)**

PHYS 4570 - Secondary School Science Teaching Methods **Credits: (3)** or

CHEM 4570 - Secondary School Science Teaching Methods **Credits: (3)** or

GEO 4570 - Secondary School Science Teaching Methods **Credits: (3)**

PHYS 4800 - Individual Research Problems **Credits: (1-3)** (1 credit hour required) or

CHEM 4800 - Research and Independent Study in Chemistry **Credits: (1-3)** (1 credit hour required) or

GEO 4800 - Independent Research **Credits: (1-3)** (1 credit hour required)

#### Science Support Courses (11 credit hours)

HIST 3350 - History and Philosophy of Science **Credits: (3)**

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

Note:

*Students must also complete the Teacher Education Licensure Program.*

## Physics (BS)

### Physics Major

**Program Prerequisite:** Not required.

**Minor:** No minor is required. However, a math minor is automatically satisfied by the requirements.

**Grade Requirements:** An overall GPA of 2.00 is required. Also refer to the general grade requirements for graduation on Degree Requirements.

**Credit Hour Requirements:** A total of 120 semester credit hours is required for graduation; 75 to 82 of these (depending on the option chosen) are required within the Physics major. Forty upper-division credit hours are required (courses numbered 3000 and above); 30 to 34 of these (depending on the option chosen) are required within the Physics major.

### Advisement

All Physics majors are strongly encouraged to meet with the chair at least annually for course and program advisement. Call 801-626-6163 for more information or to schedule an appointment. Note that because most courses have prerequisites and some advanced courses are offered only in alternate years, careful planning is essential.

### Admissions Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the Physics major.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Physics major will satisfy general education requirements: PHYS 2210 and MATH 1210.

## Physics Major Course Requirements for BS Degree

Physics Courses Required (23 credit hours)

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

PHYS 2300 - Scientific Computing for Physical Systems **Credits: (3)**  
PHYS 2710 - Introductory Modern Physics **Credits: (3)**  
PHYS 3500 - Analytical Mechanics **Credits: (3)**  
PHYS 3510 - Electromagnetic Theory **Credits: (3)**

PHYS 4990 - Seminar in Physics **Credits: (1)**

### Physics Electives (3 credit hours)

Select a minimum of three additional credit hours from Physics courses numbered 3000 and above. Courses in closely related disciplines may also satisfy this requirement when appropriate to the option chosen (see below). In all cases, elective courses must be approved by the department chair.

### Support Courses Required (22 credit hours)

MATH 1200 - Mathematics Computer Laboratory **Credits: (1)**

MATH 1210 - Calculus I **Credits: (4)**

MATH 1220 - Calculus II **Credits: (4)**

MATH 2210 - Calculus III **Credits: (4)**

MATH 2270 - Elementary Linear Algebra **Credits: (3)**

MATH 2280 - Ordinary Differential Equations **Credits: (3)**

MATH 3710 - Boundary Value Problems **Credits: (3)**

### OPTIONS

Physics Majors must also satisfy the requirements of at least one of the following four options.

#### 1. Traditional option.

*By including all of the core courses in theoretical physics, this option provides a strong foundation for graduate study in physics.*

### Additional Physics Courses Required (17 or 18 credit hours)

PHYS 3180 - Thermal Physics **Credits: (3)**

PHYS 3190 - Applied Optics **Credits: (3)** or

PHYS 3410 - Electronics for Scientists **Credits: (4)**

PHYS 3540 - Mechanical and Electromagnetic Waves **Credits: (3)**

PHYS 3710 - Nuclear and Particle Physics **Credits: (3)**

PHYS 4400 - Advanced Physics Laboratory **Credits: (2)**

PHYS 4610 - Quantum Mechanics **Credits: (3)**

### Additional Support Courses Required (10 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and

CHEM 1220 - Principles of Chemistry II **Credits: (5)**

#### 2. Physics of Materials option.

*This option is intended for students who have an interest in the properties of materials and their study using advanced instrumentation.*

### Additional Physics Courses Required (18 credit hours)

PHYS 3180 - Thermal Physics **Credits: (3)**

PHYS 3410 - Electronics for Scientists **Credits: (4)**

PHYS 3540 - Mechanical and Electromagnetic Waves **Credits: (3)**  
PHYS 4200 - The Physics of Materials **Credits: (3)**  
PHYS 4410 - Materials Characterization Laboratory **Credits: (2)**  
PHYS 4610 - Quantum Mechanics **Credits: (3)**

#### Additional Support Courses Required (10 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

### 3. Astrophysics option.

*Supplementing a traditional physics program with several astronomy and astrophysics courses, this option is intended for students with a special interest in astronomy, including those intending to pursue graduate study in astrophysics.*

#### Additional Physics Courses Required (23 or 24 credit hours)

ASTR 2040 PS - Principles of Observational Astronomy **Credits: (3)**  
ASTR 3160 - Stellar and Planetary Astrophysics **Credits: (3)**  
ASTR 3170 - Galaxies and Cosmology **Credits: (3)**  
PHYS 3180 - Thermal Physics **Credits: (3)**

PHYS 3190 - Applied Optics **Credits: (3)** or  
PHYS 3410 - Electronics for Scientists **Credits: (4)**

PHYS 3540 - Mechanical and Electromagnetic Waves **Credits: (3)**  
PHYS 4400 - Advanced Physics Laboratory **Credits: (2)**  
PHYS 4610 - Quantum Mechanics **Credits: (3)**

#### Additional Support Courses Required (9 or 10 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**

***select one of the following:***

CHEM 1220 - Principles of Chemistry II **Credits: (5)**  
MICR 2054 LS - Principles of Microbiology **Credits: (4)**  
GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** and  
GEO 1115 - Physical Geology Lab **Credits: (1)**

### 4. Computational Physics option.

*This option is intended for students with a special interest in computational techniques applied to the physical world.*

#### Additional Physics Courses Required (15 credit hours)

PHYS 3300 - Advanced Computational Physics **Credits: (3)**  
PHYS 3410 - Electronics for Scientists **Credits: (4)**  
PHYS 4400 - Advanced Physics Laboratory **Credits: (2)**

***select two of the following:***

PHYS 3180 - Thermal Physics **Credits: (3)**  
PHYS 3540 - Mechanical and Electromagnetic Waves **Credits: (3)**

PHYS 4610 - Quantum Mechanics **Credits: (3)**

### Additional Physics Courses Required (14 credit hours)

MATH 4610 - Numerical Analysis I **Credits: (3)** and

MATH 4620 - Numerical Analysis II **Credits: (3)**

*select two of the following:*

CS 1410 - Object-Oriented Programming **Credits: (4)**

CS 2420 - Introduction to Data Structures and Algorithms **Credits: (4)**

CS 2450 - Software Engineering I **Credits: (4)**

CS 2810 - Computer Architecture/Organization **Credits: (4)**

## Physics Teaching (BS)

**Program Prerequisite:** Physics Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Not Required.

**Grade Requirements:** An overall GPA of 2.00 is required in courses required for this major. Also refer to the general grade requirements for graduation under General Requirements.

**Credit Hour Requirements:** A total of 120 semester credit hours is required for graduation; 45 hours are required within the major, plus the credits required by the Teacher Education department. Forty upper-division credit hours are required (courses numbered 3000 and above).

### Advisement

Physics Teaching majors are strongly encouraged to meet with the chair at least annually for course and program advisement. Call 801-626-6163 for more information or to schedule an appointment. Physics Teaching majors are also encouraged to meet with a Jerry and Vickie Moyes College of Education advisor (call 801-626-6269). (Also refer to the Department Advisor Referral List.)

### Admissions Requirements

Declare your program of study. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education)

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Physics and Applied Physics majors will satisfy general education requirements: PHYS 1040 PS, PHYS 2210 PS, and MATH 1210.

## Physics Teaching Major Course Requirements for BS Degree

### Physics Courses Required (25 credit hours)

PHYS 1040 PS - Elementary Astronomy **Credits: (3)**

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and

PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

PHYS 2600 - Laboratory Safety **Credits: (1)**  
PHYS 2710 - Introductory Modern Physics **Credits: (3)**  
PHYS 3570 - Foundations of Science Education **Credits: (3)**  
PHYS 4570 - Secondary School Science Teaching Methods **Credits: (3)**  
PHYS 4800 - Individual Research Problems **Credits: (1-3)** (1 credit hour required)  
PHYS 4990 - Seminar in Physics **Credits: (1)**

### Physics Electives (9 credit hours)

*Select nine credit hours in approved Physics classes (courses numbered 2300 and above, excluding other explicit course requirements).*

### Support Courses Required (11 credit hours)

HIST 3350 - History and Philosophy of Science **Credits: (3)**

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

#### **Note:**

*Students must also complete the Teacher Education Licensure Program.*

## Physics, Applied (BS)

**Program Prerequisite:** Not required.

**Minor:** No minor is required. However, a math minor is automatically satisfied by taking one additional Math course (MATH 2270) beyond the Applied Physics major requirements.

**Grade Requirements:** An overall GPA of 2.00 is required. Also refer to the general grade requirements for graduation under Degree Requirements.

**Credit Hour Requirements:** A total of 120 semester credit hours is required for graduation; 75 to 76 of these (depending on choice of courses) are required within the Applied Physics major. Forty upper-division credit hours are required (courses numbered 3000 and above); 32 to 33 of these are required within the Applied Physics major.

#### **Advisement**

All Applied Physics majors are strongly encouraged to meet with the chair at least annually for course and program advisement. Call 801-626-6163 for more information or to schedule an appointment. Note that because most courses have prerequisites and some advanced courses are offered only in alternate years, careful planning is essential.

#### **Admissions Requirements**

Declare your program of study. There are no special admission or application requirements for the Applied Physics major.

#### **General Education**

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Applied Physics major will satisfy general education requirements: PHYS 2210PS, CHEM 1210 PS, and MATH 1210.

## Applied Physics Major Course Requirements for BS Degree

### Physics Courses Required (34 or 35 credit hours)

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

PHYS 2300 - Scientific Computing for Physical Systems **Credits: (3)**  
PHYS 2600 - Laboratory Safety **Credits: (1)**  
PHYS 2710 - Introductory Modern Physics **Credits: (3)**  
PHYS 3190 - Applied Optics **Credits: (3)**  
PHYS 3500 - Analytical Mechanics **Credits: (3)**  
PHYS 3510 - Electromagnetic Theory **Credits: (3)**  
PHYS 3540 - Mechanical and Electromagnetic Waves **Credits: (3)**

PHYS 4400 - Advanced Physics Laboratory **Credits: (2)** or  
PHYS 4410 - Materials Characterization Laboratory **Credits: (2)**

PHYS 4800 - Individual Research Problems **Credits: (1-3)**  
PHYS 4990 - Seminar in Physics **Credits: (1)**

### Electives (9 credit hours)

*Select a minimum of nine additional credit hours from Physics courses numbered 3000 and above. Upper-division courses in closely related disciplines may also satisfy this requirement. In all cases, elective courses must be approved by the department chair.*

### Support Courses Required (32 credit hours)

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

MATH 1200 - Mathematics Computer Laboratory **Credits: (1)**  
MATH 1210 - Calculus I **Credits: (4)**  
MATH 1220 - Calculus II **Credits: (4)**  
MATH 2210 - Calculus III **Credits: (4)**  
MATH 2280 - Ordinary Differential Equations **Credits: (3)**

MATH 3410 - Probability and Statistics I **Credits: (3)** and  
MATH 3420 - Probability and Statistics II **Credits: (3)**

## Physics Minor

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 26 credit hours in Physics and support courses. Prior department approval is required.

## Course Requirements for Minor

### Physics Courses Required (10 credit hours)

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

### Elective Physics Courses (8 credit hours)

*Select at least three Physics courses from the following*

PHYS 2300 - Scientific Computing for Physical Systems **Credits: (3)**  
PHYS 2710 - Introductory Modern Physics **Credits: (3)**  
PHYS 3160 - Stellar and Planetary Astrophysics **Credits: (3)**  
PHYS 3170 - Galaxies and Cosmology **Credits: (3)**  
PHYS 3180 - Thermal Physics **Credits: (3)**  
PHYS 3190 - Applied Optics **Credits: (3)**  
PHYS 3300 - Advanced Computational Physics **Credits: (3)**  
PHYS 3410 - Electronics for Scientists **Credits: (4)**  
PHYS 3420 - Data Analysis, Statistics, and Instrumentation **Credits: (3)**  
PHYS 3500 - Analytical Mechanics **Credits: (3)**  
PHYS 3510 - Electromagnetic Theory **Credits: (3)**  
PHYS 3540 - Mechanical and Electromagnetic Waves **Credits: (3)**  
PHYS 4200 - The Physics of Materials **Credits: (3)**  
PHYS 4400 - Advanced Physics Laboratory **Credits: (2)**  
PHYS 4410 - Materials Characterization Laboratory **Credits: (2)**  
PHYS 4610 - Quantum Mechanics **Credits: (3)**

### Support Courses Required (8 credit hours)

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

## Physics Teaching Minor

**Grade Requirements:** A grade of C or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 25 credit hours in Physics and support courses. Prior department approval is required.

*Students who select the Physics Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

## Course Requirements for Minor

### Physics Courses Required (11 credit hours)

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)** and  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

PHYS 2600 - Laboratory Safety **Credits: (1)**

Elective Physics Courses (6 credit hours)

*Select 6 credit hours in approved Physics courses (numbered 2300 and above)*

Support Courses Required (11 credit hours)

MATH 1210 - Calculus I **Credits: (4)** and  
MATH 1220 - Calculus II **Credits: (4)**

HIST 3350 - History and Philosophy of Science **Credits: (3)**

If a student is not obtaining a Teaching Major in Physical or Life Science, the following courses are also required:

PHYS 3570 - Foundations of Science Education **Credits: (3)**  
PHYS 4570 - Secondary School Science Teaching Methods **Credits: (3)**

## Physics Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Zoology

**Department Chair:** Christopher Hoagstrom

**Location:** Tracy Hall Science Center, Room 402

**Website:** [www.weber.edu/zoology](http://www.weber.edu/zoology)

**Telephone Contact:** Robin Osterhoudt 801-626-6165

**Professors:** Nicole Berthélémy, John Cavitt, Jonathan Clark, Christopher Hoagstrom, Ron Meyers, John Mull, Michele Skopec, Barbara Trask; **Associate Professors:** Brian Chung, Jon Marshall; **Assistant Professor:** Lin Xiang;

**Instructors:** Patrice Connors, Nicole Lewis-Rogers

Zoology is the study of animals. It includes a tremendous diversity of subdivisions and approaches. These range from using electron microscopy to study cells, to field examinations of natural populations. Some zoologists focus their studies on a specific group of animals; others specialize on problems or processes, such as those in physiology or genetics, which are common to many groups. Zoologists have made many important contributions to our understanding of the natural world. Furthermore, they benefit humankind through their work in areas such as medicine and environmental conservation.

Although our majors pursue several tracks, many are involved in pre-medical professional training. We have an excellent record of placing students in the finest medical, dental, veterinary, and physical therapy programs. The faculty strongly encourage majors to pursue guided research, particularly through the department's thesis program.

All students are urged to consult with the department early in their education. Arrangements can then be made for the student to be matched with an appropriate advisor who can offer course and career suggestions.

## DNA Laboratory

The Department of Zoology maintains a DNA Laboratory on the first floor of the Science Laboratory building in the College of Science. It is a modern facility with state-of-the-art equipment for DNA isolation and analysis. The laboratory is used for student course work, faculty-supervised student research, and faculty research.

## Interdisciplinary Programs

The Zoology Department participates in the interdisciplinary Neuroscience Minor and the Urban and Regional Planning Emphasis programs. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

# Biology Composite Teaching (BS)

**Program Prerequisite:** Must meet the Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Not required.

**Grade Requirements:** A grade of "C" or better in courses required for this major (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** This major requires 120-124 credit hours. The student must also complete requirements for a secondary education license as determined by the Jerry and Vicki Moyes College of Education.

## Advisement

Teaching majors are encouraged to consult with advisors in both the College of Science (call 801-626-6160) and the College of Education (call 801-626-6269).

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Biology Composite Teaching majors must satisfy Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Biology Composite Teaching major also will satisfy general education requirements: MICR 2054, GEO 1110, CHEM 1110 or CHEM 1210, PHYS 1010, CHF 1500, COMM 1020, and MATH 1050.

## Major Course Requirements for BS Degree

### Biological Science Courses Required (46 credit hours)

BTNY 2104 - Plant Form and Function **Credits: (4)**

BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

ZOOL 1110 LS - Principles of Zoology **Credits: (4)** and

ZOOL 2220 - Diversity of Animals **Credits: (4)**

ZOOL 2200 LS - Human Physiology **Credits: (4)** or  
ZOOL 3600 - Comparative Physiology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

ZOOL 3720 - Evolution **Credits: (3)** or  
BTNY 4113 - Plant Evolution **Credits: (3)**

BTNY 3454 - Plant Ecology **Credits: (4)** or  
ZOOL 3450 - Ecology **Credits: (4)** or  
MICR 3154 - Microbial Ecology **Credits: (4)**

BTNY 2600 - Laboratory Safety **Credits: (1)** or  
MICR 2600 - Laboratory Safety **Credits: (1)** or

BTNY 3000+ - Electives **(3)** or  
ZOOL 3000+ - Electives **(3)** or  
MICR 3000+ - Electives **(3)**

BTNY 3570 - Foundations of Science Education **Credits: (3)** or  
MICR 3570 - Foundations of Science Education **Credits: (3)** or  
ZOOL 3570 - Foundations of Science Education **Credits: (3)**

ZOOL 4570 - Secondary School Science Teaching Methods **Credits: (3)** or  
BTNY 4570 - Secondary School Science Teaching Methods **Credits: (3)** or  
MICR 4570 - Secondary School Science Teaching Methods **Credits: (3)**

BTNY 4800 - Individual Research **Credits: (2)** or  
MICR 4800 - Directed Research **Credits: (1-2)** or  
ZOOL 4800 - Problems in Zoology **Credits: (1-4)**

### Support Courses Required (23-25 credit hours)

CHEM 1110 PS - Elementary Chemistry **Credits: (5)** and  
CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**

**or**

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)**

PHYS 1010 PS - Elementary Physics **Credits: (3)** or  
PHYS 2010 PS - College Physics I **Credits: (5)**

MATH 1050 QL - College Algebra **Credits: (4)**  
HIST 3350 - History and Philosophy of Science **Credits: (3)**

### Note:

*It is recommended that more advanced courses in Mathematics, Physics and Chemistry be taken, especially if graduate studies are planned. These should be discussed in advance with the advisor.*

# Zoology (BS)

**Program Prerequisite:** Not required.

**Minor:** Required.

**Grade Requirements:** Zoology majors must have an average GPA of 2.00 or higher. Students are required to earn a grade of "C-" in each prerequisite course before taking the next course. Zoology majors must have a grade of "C-" or better in all courses that satisfy specific requirements for the major.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 74 of these is required within the major. A total of 40 upper division hours is required (courses number 3000 and above); a minimum of 34 is required within the major.

## Advisement

All Zoology students should meet with a faculty advisor at least annually for course and program advisement. The department secretary can also assist students. Call 801-626-6165 for more information or to schedule an appointment. (Also, refer to the Department Advisor Referral List.)

## Admissions Requirements

Declare your program of study (Enrollment Services and Information). No special admission or application requirements are needed for the Zoology BS.

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following courses required for the Zoology BS will satisfy general education requirements: CHEM 1210, MATH 1040, MATH 1050, MATH 1080, PHYS 1010, PHYS 2010, PHYS 2210, ZOOL 1110. The following courses that are electives for the Zoology BS will also satisfy general education requirement: BTNY 1203, BTNY 2303, MICR 2054, ZOOL 2200. Students are encouraged to take general education courses concurrently with required and elective courses in the major.

## Major Course Requirements for Zoology BS Degree

### Required Zoology Courses

ZOOL 1110 LS - Principles of Zoology **Credits: (4)**  
ZOOL 2220 - Diversity of Animals **Credits: (4)**  
ZOOL 3200 - Cell Biology **Credits: (4)**  
ZOOL 3300 - Genetics **Credits: (4)**  
ZOOL 3450 - Ecology **Credits: (4)**  
ZOOL 3600 - Comparative Physiology **Credits: (4)**  
ZOOL 3720 - Evolution **Credits: (3)**  
ZOOL 4990 - Seminar **Credits: (1)**

### Upper-division Zoology Electives (minimum 4 courses from the following)

ZOOL 3470 - Zoogeography **Credits: (3)**  
ZOOL 3500 - Conservation Biology **Credits: (3)**  
ZOOL 3730 - Population Biology **Credits: (3)**  
ZOOL 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
ZOOL 4100 - Vertebrate Embryology **Credits: (4)**  
ZOOL 4120 - Histology **Credits: (4)**  
ZOOL 4210 - Advanced Human Physiology **Credits: (4)**  
ZOOL 4220 - Endocrinology **Credits: (4)**  
ZOOL 4250 - Radiation Biology **Credits: (4)**

ZOOL 4300 - Molecular Genetics **Credits: (4)**  
ZOOL 4350 - Animal Behavior **Credits: (4)**  
ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)**  
ZOOL 4480 - Aquatic Ecology **Credits: (4)**  
ZOOL 4500 - Parasitology **Credits: (4)**  
ZOOL 4600 - Protozoology **Credits: (4)**  
ZOOL 4640 - Entomology **Credits: (4)**  
ZOOL 4650 - Ichthyology **Credits: (4)**  
ZOOL 4660 - Herpetology **Credits: (4)**  
ZOOL 4670 - Ornithology **Credits: (4)**  
ZOOL 4680 - Mammalogy **Credits: (4)**  
ZOOL 4900 - Topics in Zoology **Credits: (1-4)** 3 or 4 credits required

Experience in Zoology (minimum 2 credit hours\* from the following or select an additional (5th) course from upper-division Zoology electives (above)).

ZOOL 3099 - Teaching the Human Anatomy Laboratory **Credits: (3)**  
ZOOL 3100 - Advanced Human Anatomy **Credits: (3)**  
ZOOL 4800 - Problems in Zoology **Credits: (1-4)**  
ZOOL 4820 - Human Physiology Laboratory Teaching Assistant **Credits: (1)**  
ZOOL 4830 - Readings in Zoology **Credits: (1-4)**  
ZOOL 4890 - Cooperative Work Experience **Credits: (1-4)**  
ZOOL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**  
ZOOL 4950 - Field Zoology **Credits: (1-3)**  
ZOOL 4970 - Thesis **Credits: (2)**  
ZOOL 4980 - Research Design **Credits: (2)**

Note:

\*The two credit hours can be taken in the same or separate semesters.

### Required Chemistry Courses

CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**

### Required Math Courses (minimum 1 course from the following)

MATH 1050 QL - College Algebra **Credits: (4)**  
MATH 1080 QL - Pre-calculus **Credits: (5)**  
MATH 1210 - Calculus I **Credits: (4)**

### Required Statistics Courses (minimum 1 course from the following; courses taken with separate labs count as 1 course)

MATH 1040 QL - Introduction to Statistics **Credits: (3)**  
MATH 3410 - Probability and Statistics I **Credits: (3)**  
SOC 3600 - Social Statistics **Credits: (3)**  
PSY 3600 - Statistics in Psychology **Credits: (3)**  
with PSY 3605 - Psychology Statistics Lab **Credits: (1)**

### Required Physics Courses (minimum 1 course from the following)

PHYS 1010 PS - Elementary Physics **Credits: (3)**

PHYS 2010 PS - College Physics I **Credits: (5)**  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

Elective support courses (minimum 4 courses from the following including at least 1 course in BTNY or MICR; courses taken with separate labs count as 1 course)

#### Botany

BTNY 1203 LS - Plant Biology **Credits: (3)**  
BTNY 2104 - Plant Form and Function **Credits: (4)**  
BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**  
BTNY 2303 - Ethnobotany **Credits: (3)**  
BTNY 3105 - Anatomy of Vascular Plants **Credits: (4)**  
BTNY 3204 - Plant Physiology **Credits: (4)**  
BTNY 3214 - Soils **Credits: (4)**  
BTNY 3454 - Plant Ecology **Credits: (4)**  
BTNY 3504 - Mycology **Credits: (4)**  
BTNY 3514 - Algology **Credits: (4)**  
BTNY 3523 - Marine Biology **Credits: (3)**  
BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**  
BTNY 4113 - Plant Evolution **Credits: (3)**

#### Chemistry

CHEM 2310 - Organic Chemistry I **Credits: (4)**  
with CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**  
CHEM 2320 - Organic Chemistry II **Credits: (4)**  
with CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**  
CHEM 3070 - Biochemistry I **Credits: (3)**

#### Microbiology

MICR 2054 LS - Principles of Microbiology **Credits: (4)**  
MICR 3053 - Microbiological Procedures **Credits: (3)**  
MICR 3203 - The Immune System in Health & Disease **Credits: (3)**  
MICR 3254 - Immunology **Credits: (4)**  
MICR 3305 - Medical Microbiology **Credits: (5)**  
MICR 3484 - Environmental Microbiology **Credits: (4)**  
MICR 3853 - Food Microbiology **Credits: (3)**  
MICR 4054 - Microbial Physiology **Credits: (4)**  
MICR 4554 - Virology **Credits: (4)**

#### Physics

PHYS 2020 - College Physics II **Credits: (5)**  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

#### Zoology

ZOOL 2100 - Human Anatomy **Credits: (4)**  
ZOOL 2200 LS - Human Physiology **Credits: (4)**

## Special Emphases

### Pre-Medical Professional Training

Students considering application to medical, dental, veterinary, physical therapy, optometry, and pharmacy schools should consult the beginning of the College of Science section of this catalog. Furthermore, they should meet with the advisors of these programs, each of whom is listed in that section. The Department of Zoology offers lower and upper level courses that provide superb training for examinations such as the Medical College Admissions Test, as well as medical school courses. Students should meet with the appropriate advisor for specific course suggestions.

## Ecological/Environmental Training

Students interested in ecologically or environmentally oriented careers should follow the Zoology major and select courses to fill their elective requirements from the following:

### Zoology Course Electives

- ZOOL 3500 - Conservation Biology **Credits: (3)**
- ZOOL 4300 - Molecular Genetics **Credits: (4)**
- ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)**
- ZOOL 4480 - Aquatic Ecology **Credits: (4)**
- ZOOL 4640 - Entomology **Credits: (4)**
- ZOOL 4650 - Ichthyology **Credits: (4)**
- ZOOL 4660 - Herpetology **Credits: (4)**
- ZOOL 4670 - Ornithology **Credits: (4)**
- ZOOL 4680 - Mammalogy **Credits: (4)**

### Support Course Electives in Botany

- BTNY 3624 - Taxonomy of Vascular Plants **Credits: (4)**
- BTNY 3473 - Plant Geography **Credits: (3)**

Note:

*Students desiring employment as a conservation officer should minor in Criminal Justice with a Law Enforcement concentration (see Department of Criminal Justice section of the catalog). Students desiring a career as a wildlife biologist or wildlife manager, or intending to pursue advanced studies in ecology or conservation biology following graduation (MS or PhD degrees), should minor in Botany. (Consult with the department secretary at 801-626- 6165 for information about the advisor of this program.)*

## Zoology (BIS)

**Grade Requirements:** A grade of "C -" or better in courses used toward the Zoology Emphasis in BIS.

**Credit Hour Requirements:** A minimum of 18 credit hours in Zoology courses.

### Advisement

Students must have their Zoology BIS Emphasis contract approved by the departmental advisor and the BIS program coordinator. Call 801-626-6165 for the departmental advisor's contact information. (Also refer to the Departmental Advisor Referral List.)

## Course Requirements for BIS Emphasis

### Zoology Courses Required (11 credit hours)

- ZOOL 1110 LS - Principles of Zoology **Credits: (4)**
- ZOOL 2220 - Diversity of Animals **Credits: (4)**
- ZOOL 3720 - Evolution **Credits: (3)**

## Zoology BIS Emphasis Electives (7 credit hours)

Select 7 credit hours of approved upper division Zoology courses (numbered 3000 and above).

Note:

ZOOL 2100 – Human Anatomy Credits: (4) and ZOOL 2200 – Human Physiology Credits: (4) may be used at half credit (2 credit hours per each) to fulfill elective credit hours in the Zoology BIS Emphasis.

## Zoology Minor

**Grade Requirements:** A grade of "C-" or better in courses used toward the minor.

**Credit Hour Requirements:** Minimum of 19 credit hours in Zoology courses.

### Course Requirements for Minor

#### Zoology Courses Required (11 Credit Hours)

ZOOL 1110 LS - Principles of Zoology **Credits: (4)**

ZOOL 2220 - Diversity of Animals **Credits: (4)**

ZOOL 3720 - Evolution **Credits: (3)**

#### Zoology Minor Elective Courses (8 credit hours)

*Select 8 credit hours of Zoology courses at or above the 2000 level.*

## Biology Teaching Minor

*This minor replaces and is a consolidation of the Botany and Zoology Teaching Minors.*

**Grade Requirements:** A grade of "C-" or better in courses used towards the minor.

**Credit Hour Requirements:** A minimum of 47 credit hours. Students who select the Biology Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department).

### Course Requirements for Biology Teaching Minor

#### Science Courses Required (39 credit hours)

ZOOL 1110 LS - Principles of Zoology **Credits: (4)**

ZOOL 2220 - Diversity of Animals **Credits: (4)**

BTNY 2104 - Plant Form and Function **Credits: (4)**

BTNY 2114 - Evolutionary Survey of Plants **Credits: (4)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

ZOOL 3600 - Comparative Physiology **Credits: (4)** or  
ZOOL 2200 LS - Human Physiology **Credits: (4)**

MICR 3154 - Microbial Ecology **Credits: (4)** or  
BTNY 3454 - Plant Ecology **Credits: (4)** or  
ZOOL 3450 - Ecology **Credits: (4)**

BTNY 3570 - Foundations of Science Education **Credits: (3)** or  
MICR 3570 - Foundations of Science Education **Credits: (3)** or  
ZOOL 3570 - Foundations of Science Education **Credits: (3)**

BTNY 4570 - Secondary School Science Teaching Methods **Credits: (3)** or  
MICR 4570 - Secondary School Science Teaching Methods **Credits: (3)** or  
ZOOL 4570 - Secondary School Science Teaching Methods **Credits: (3)**

BTNY 2600 - Laboratory Safety **Credits: (1)** or  
MICR 2600 - Laboratory Safety **Credits: (1)**

### Required Support Courses (8 credit hours)

HIST 3350 - History and Philosophy of Science **Credits: (3)**

CHEM 1110 PS - Elementary Chemistry **Credits: (5)** or  
CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**

## Zoology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## College of Social & Behavioral Sciences

### **Dr. Francis Harrold, Dean**

The College of Social and Behavioral Sciences is dedicated to studying behavior and thought in their individual, social, cultural, physical, and historical contexts, and to the beneficial application of this knowledge. The College prepares students for productive careers and engaged citizenship through general education instruction, and major, minor and interdisciplinary programs which emphasize critical and scientific thinking. Through teaching, scholarship, and service, the College's faculty aims to enhance social justice, environmental awareness, and the quality of life in northern Utah and beyond.

**Dean:** Dr. Francis Harold

**Telephone Contact:** Jenny Eckenbrecht 801-626-6232

**Location:** Science Laboratory Building, Room 613

**Associate Dean:** Dr. Julie Rich

**Telephone Contact:** Jenny Eckenbrecht 801-626-6232

**Location:** Science Laboratory Building, Room 609

**Senior College Advisor:** Seth Wilhelmsen 801-626-7809

**Location:** Science Laboratory Building, Room 228A

**College Advisor:** Erin Beltran 801-626-6757

**Location:** Science Laboratory Building, Room 229

### **Department Chairs/Directors**

Criminal Justice: Dr. Brent Horn 801-626-6714

Geography: Dr. Eric Ewert 801-626-6197

History: Dr. Sara Dant 801-626-6706

Political Science & Philosophy: Dr. Thomas Kuehls 801-626-6694

Psychology: Dr. Aaron Ashley 801-626-6247

Social Work & Gerontology: Dr. Mark O. Bigler 801-626-6157

Sociology & Anthropology: Dr. Marjukka Ollilainen 801-626-6241

ROTC Units 801-581-6236

Aerospace Studies: Lt Col Angelique P. Brown (SLC) 801-581-6236

*or contact the College of Social & Behavioral Sciences* 801-626-6232

Military Science: Lieutenant Colonel Jason M. Nierman 801-626-6518

### **Social Science Education Center**

**Director:** Dr. Stephen Francis

**Location:** Science Laboratory Building, Room 423

**Telephone:** 801-626-6781

The Social Science Education Center was initiated and organized in 1990 to promote, coordinate, and encourage social science education. The faculty of the College of Social & Behavioral Sciences, the College of Education, public and private schools and their respective districts collaborate in programs and activities designed to improve and enhance the teaching of the Social Sciences. This includes seminars for social science teachers in the area and presentations by Weber State University professors.

### **The Olene S. Walker Institute of Politics and Public Service**

**Director:** Robert Hunter

**Location:** Science Laboratory Building, Room 323A

**Telephone:** 801-626-6206

**Email:** walkerinstitute@weber.edu

The non-partisan Walker Institute is committed to upholding the highest standards of American democracy and providing a visible and vibrant hub of political engagement for the Weber State University community. Through forums, workshops, seminars, symposiums and panel discussions, the Walker Institute strives to bring a better understanding of the political process to students and community members. The Walker Institute is dedicated to the training of future leaders by inspiring students to embrace public service and engaging them in internship opportunities at the local, state and national levels.

## **The Richard Richards Institute for Ethics**

**Director:** Dr. Richard Greene

**Location:** D2-137H (Davis Campus)

**Telephone:** 801-626-6694

The Richard Richards Institute for Ethics was established in 2007 in order to promote ethical leadership in both private industry and government. It works to do so via outreach and education by offering scholarship opportunities to high school and college students, hosting workshops and ethics related activities for community members, and by acknowledging and honoring those leaders of our community who exemplify the highest ethical ideals and standards.

# **Master of Criminal Justice Program**

**Program Director:** *Bruce Bayley*

**Telephone Contact:** *801-626-8134*

## **Who Should Apply**

The program is designed for criminal justice and social service professionals who wish to continue their education.

## **Program Description**

The Master of Science Degree in Criminal Justice is designed to provide post-baccalaureate education to criminal justice professionals and traditional students who have not yet begun a career in criminal justice. The primary goal of the program is to develop in graduates the ability to analyze, comprehend, and explore the complex problems confronting the criminal justice system. The program emphasizes theory, research and administration in the criminal justice system. Students will be able to conceptualize the problems of crime and justice from social, cultural, economic, and political perspectives. In addition, the successful graduate will understand research methods and design as well as statistical strategies used to analyze social science research. Course work will also provide a foundation for those students desiring to pursue doctoral studies.

## **About the Faculty**

The graduate faculty brings diverse backgrounds both in terms of education and professional experience. Faculty graduate degrees include Public Administration, Sociology, Criminal Justice, Psychology, and the Law. Past professional experiences among the faculty include law enforcement administration, prosecuting attorney, criminal defense attorney, probation officer, corrections officer, and forensic investigator. Faculty research interests cross the full spectrum of the justice system and include issues related to the police, courts, criminal procedures, adult and youth corrections.

## **About the Program**

The Master of Science Degree in Criminal Justice is a fully on-line degree program that allows students the opportunity to continue their education from anywhere with active Internet service. Applications are accepted on a continuous basis and courses are offered every semester (fall, spring, and summer). In general, students should be able to complete their degree in as few as 12-16 months.

# Master of Science in Criminal Justice (MCJ)

## Admission Requirements

Admission to the master's program will be competitive and entrance restricted to a limited number of well qualified applicants. Applicants should possess an undergraduate degree from a regionally accredited university or college. Specific admissions criteria include:

- A completed application to the Master of Criminal Justice Program
- A cumulative undergraduate GPA of at least 3.0; or if the cumulative undergraduate GPA is below 3.0, a 3.0 GPA calculated on the last undergraduate work comprising a minimum of 60 semester hours (90 quarter hours) of undergraduate work.\*
- Official transcripts from all colleges/universities attended
- A current resume or vita
- A written personal statement explaining interest in the program
- Three (3) Letters of Recommendation
- TOEFL (required for International students and may be required for students who do not use English as their primary language)

\*Simply meeting the minimum overall GPA of 3.0 does not guarantee admission into the program

[Students should familiarize themselves with the MCJ program policies found on the Criminal Justice Department website.](#)

## Graduation Requirements

The Master of Science Degree in Criminal Justice requires the completion of 36 semester hours. Four core courses totaling 12 semester hours are required. These courses are:

- MCJ 6000 - Criminal Justice Statistics **(3)**
- MCJ 6100 - Contemporary Criminal Justice **(3)**
- MCJ 6110 - Research Methods in Criminal Justice **(3)**
- MCJ 6120 - Theories of Crime and Delinquency **(3)**

*A minimum GPA of 3.0 for all courses is required. No "C" grade or lower is allowed in core courses.*

The remaining hours will be chosen from elective courses of interest to the student. More than one "C" grade in these courses will not count toward completion of the degree.

## Master of Science Degree Criminal Justice Courses

### Required Courses

- MCJ 6000 - Criminal Justice Statistics **Credits: (3)**
- MCJ 6100 - Contemporary Criminal Justice **Credits: (3)**
- MCJ 6110 - Research Methods in Criminal Justice **Credits: (3)**
- MCJ 6120 - Theories of Crime and Delinquency **Credits: (3)**

### Elective Courses

- MCJ 6130 - Law and Social Control **Credits: (3)**
- MCJ 6140 - Technology and Innovation in Criminal Justice **Credits: (3)**
- MCJ 6150 - Diversity Issues in Criminal Justice **Credits: (3)**
- MCJ 6160 - Criminal Justice Policy Analysis **Credits: (3)**
- MCJ 6170 - Juvenile Justice & Delinquency **Credits: (3)**

MCJ 6180 - Contemporary Legal Issues **Credits: (3)**  
MCJ 6190 - Legal Foundations of Criminal Justice **Credits: (3)**  
MCJ 6200 - Advanced Victimology **Credits: (3)**  
MCJ 6210 - Judicial Administration **Credits: (3)**  
MCJ 6220 - Contemporary Law Enforcement **Credits: (3)**  
MCJ 6230 - Contemporary Corrections **Credits: (3)**  
MCJ 6250 - Topics in Criminal Justice **Credits: (1-3)**  
MCJ 6255 - Great Thoughts in Criminal Justice **Credits: (3)**  
MCJ 6260 - Graduate Readings **Credits: (3)**  
MCJ 6810 - Experimental Course **Credits: (1-3)**

## Department of Criminal Justice

**Department Chair:** Brent Horn

**Location:** Social Science Building, Room 218

**Telephone Contact:** Faye Medd 801-626-6146

**Professors:** Bruce Bayley, David Lynch, Scott Senjo; **Associate Professors:** Brent Horn, Bradford Reynolds, Molly Sween; **Assistant Professors:** Russ Dean, Mark Denniston, Heeuk "Dennis" Lee, Monica Williams; **Instructors:** Jean Kapenda, Brian Namba

The Criminal Justice program provides students with a liberal education, while offering academic preparation through an expanded emphasis on criminal justice education. The program also offers a basis for graduate study and seeks to contribute significantly to the improvement of the quality of justice administration.

Criminal justice agencies in the recent past have established advanced academic standards. Education is becoming a more meaningful factor in selection of law enforcement, corrections, and security personnel for initial employment, promotion, and administrative roles.

### Criminal Justice (AS)

**Grade Requirements:** A grade of "C" or better in courses required for an Associate's Degree in Criminal Justice in addition to an overall GPA for these courses of 2.50 or higher. Also refer to the general grade requirements for graduation.

**Credit Hour Requirements:** 60 total hours are required, including at least 21 Criminal Justice credits (CJ prefix).

#### Advisement

All Criminal Justice students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Visit the Criminal Justice Department web page or call 801-626-6146 for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

#### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program.

#### General Education

Refer to Degree Requirements for Associate's Degree requirements.

## Major Course Requirements for AS Degree

### Criminal Justice Required Courses (12 credit hours)

- CJ 1010 SS - Introduction to Criminal Justice **Credits: (3)**
- CJ 1300 - Corrections: History, Theory and Practice **Credits: (3)**
- CJ 1330 - Criminal Law and Courts **Credits: (3)**
- CJ 2300 - Policing: History, Theory and Practice **Credits: (3)**

### Criminal Justice Elective Courses (9 credit hours)

*Select 9 additional credit hours from Criminal Justice (CJ prefix) courses. Students may not use CJ 4830 Directed Readings or CJ 4950 Field Trips/Travel Study to fill this requirement.*

## Criminal Justice (BS)

**Program Prerequisite:** Not required.

**Minor:** Required for students selecting the Criminal Justice Concentration. Not required for students selecting the Crime Scene Investigation Concentration or the Forensic Science Concentration. In lieu of a minor, students may either 1) complete a second major; or 2) submit for approval by the department chair prior to graduation, certification of completion of an Academy for law enforcement recognized by Utah POST (at the Post Module 2 or Law Enforcement Officer level of completion or equivalent (see Criminal Justice Department web page for information on how to claim credits for POST completion); or 3) an 18 hour specialization may be selected in consultation with the chair and only in those instances where a specific minor is not offered by WSU.

**Grade Requirements:** A grade of "C" or better in courses required for a Bachelor's Degree in addition to an overall GPA for these courses of 2.50 or higher. Also refer to the general grade requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; of which 40 hours must be upper division credit hours (courses numbered 3000 and above). A minimum of 46 Criminal Justice credit hours are required for the Criminal Justice Concentration. A minimum of 79-82 credit hours (including 49 Criminal Justice credit hours) are required for the Crime Scene Investigation Concentration. A minimum of 97-98 credit hours (including 32 Criminal Justice credit hours) are required for the Forensic Science Concentration.

### Advisement

All Criminal Justice students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Students are encouraged to take CJ 4860-Criminal Justice Internship. Visit the Criminal Justice Department web page or call 801-626-6146 for more information or to find an advisor. (Also refer to the Department Advisor Referral List).

### Admission Requirements

Declare your program of study. No special admission or application requirements are needed for this program. Students with a criminal history may be precluded from participating in certain forensic science courses and should see the forensic science program director for advisement prior to selecting this program of study.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following course required for the Criminal Justice major will also satisfy general education requirements: CJ 1010 SS. Students selecting the Crime Scene Investigation Concentration should complete general education requirements by taking the following support courses: CHEM 1110 PS, CHEM 1210 PS, PHYS 1010 PS, PHYS 2010 PS, PHYS 2210 PS, MATH 1040 QL, ZOOL 1020 LS, ANTH

1020 LS/DV, HTHS 1110 LS, and/or COMM 1020 HU. Students selecting the Forensic Science Concentration should complete general education requirements by taking the following support courses: CHEM 1210 PS, PHYS 2010 PS, and/or PHYS 2210 PS.

## Major Course Requirements for BS Degree

### CRIMINAL JUSTICE FOUNDATION (9 credit hours)

- CJ 1010 SS - Introduction to Criminal Justice **Credits: (3)**
- CJ 1330 - Criminal Law and Courts **Credits: (3)**
- CJ 4200 - Ethical Issues in Criminal Justice **Credits: (3)**

Select one of the three Concentrations listed below and complete the courses listed.

### CRIMINAL JUSTICE CONCENTRATION

*Complete the following:*

#### Criminal Justice Depth (22 credit hours)

- CJ 1300 - Corrections: History, Theory and Practice **Credits: (3)**
- CJ 2300 - Policing: History, Theory and Practice **Credits: (3)**
- CJ 3270 - Theories of Crime and Delinquency **Credits: (3)**
- CJ 3300 - Victimology **Credits: (3)**
- CJ 3600 - Criminal Justice Statistics **Credits: (3)**
- CJ 4165 - Constitutional Rights **Credits: (3)**
- CJ 4980 - Research Methods in Criminal Justice **Credits: (3)**
- CJ 4995 - Criminal Justice Senior Capstone **Credits: (1)**

#### Criminal Justice Electives (15 credit hours)

*Select 15 credit hours from the following courses (may not be counted twice except where noted in the course description):*

- CJ 1340 - Criminal Investigation **Credits: (3)**
- CJ 1350 - Introduction to Forensic Science **Credits: (3)**
- CJ 2330 - Juvenile Justice **Credits: (3)**
- CJ 2340 - Crime Scene Investigation **Credits: (3)**
- CJ 2350 - Laws of Evidence **Credits: (3)**
- CJ 2810 - Experimental Course **Credits: (1-3)**
- CJ 4810 - Experimental Course **Credits: (1-3)**
- CJ 2860 - Criminal Justice Field Experience **Credits: (3)**
- CJ 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- CJ 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- CJ 3020 - Criminal Justice Management **Credits: (3)**
- CJ 3040 - Community Policing **Credits: (3)**
- CJ 3060 - Corrections in the Community **Credits: (3)**
- CJ 3120 - Professional Practice for the Forensic Expert **Credits: (3)**
- CJ 3130 - Investigation of Computer Crime **Credits: (3)**
- CJ 3340 - Crime Scene Photography **Credits: (3)**
- CJ 3344 - Advanced Forensic Photography **Credits: (3)**
- CJ 3350 - The American Jail **Credits: (3)**
- CJ 3360 - Prisons - Contemporary Issues and Dilemmas **Credits: (3)**
- CJ 3400 - Drugs and Crime **Credits: (3)**
- CJ 3700 - Women & Criminal Justice **Credits: (3)**

- CJ 3800 - White Collar Crime **Credits: (3)**
- CJ 4000 - Critical Legal Studies **Credits: (3)**
- CJ 4065 - Law and Society **Credits: (3)**
- CJ 4110 - Physical Methods in Forensic Science **Credits: (4)**
- CJ 4115 - Friction Ridge Analysis **Credits: (4)**
- CJ 4116 - Friction Ridge Development **Credits: (4)**
- CJ 4125 - Research Methods in Forensic Science **Credits: (4)**
- CJ 4300 - History of Law Enforcement **Credits: (3)**
- CJ 4700 - International Criminal Justice **Credits: (3)**
- CJ 4830 - Directed Readings and Special Projects **Credits: (1-3)**
- CJ 4860 - Criminal Justice Internship **Credits: (3)**
- CJ 4900 - Current Issues in Criminal Justice **Credits: (3)**
- CJ 4950 - Field Trips/Travel Study **Credits: (1-6)**

## CRIME SCENE INVESTIGATION CONCENTRATION

*NOTE: Graduation approval from the forensic science program director after completion of a program portfolio is required of students selecting this program of study.*

Core Crime Scene Investigation (40 credit hours)

- CJ 1340 - Criminal Investigation **Credits: (3)**
- CJ 1350 - Introduction to Forensic Science **Credits: (3)**
- CJ 2340 - Crime Scene Investigation **Credits: (3)**
- CJ 2350 - Laws of Evidence **Credits: (3)**
- CJ 3120 - Professional Practice for the Forensic Expert **Credits: (3)**
- CJ 3340 - Crime Scene Photography **Credits: (3)**
- CJ 3344 - Advanced Forensic Photography **Credits: (3)**
- CJ 4110 - Physical Methods in Forensic Science **Credits: (4)**
- CJ 4115 - Friction Ridge Analysis **Credits: (4)**
- CJ 4116 - Friction Ridge Development **Credits: (4)**
- CJ 4125 - Research Methods in Forensic Science **Credits: (4)**
- CJ 4165 - Constitutional Rights **Credits: (3)**

CSI Support (30-33 credit hours)

- ART 2450 - Foundations of Photography: Color/Digital **Credits: (3)**
- MATH 1040 QL - Introduction to Statistics **Credits: (3)**
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**

***Either***

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and
- HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**

***or***

- ZOOL 1020 LS - Human Biology **Credits: (3)** and
- ZOOL 2100 - Human Anatomy Credits: (4)***

***or***

- ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)** and
- ZOOL 2100 - Human Anatomy Credits: (4)***

***Either***

- CHEM 1110 PS - Elementary Chemistry **Credits: (5)** and
- CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**

***or***

- CHEM 1210 PS - Principles of Chemistry I **Credits: (5)** and
- CHEM 1220 - Principles of Chemistry II **Credits: (5)**

**One of**

PHYS 1010 PS - Elementary Physics **Credits: (3)** or  
PHYS 2010 PS - College Physics I **Credits: (5)** or  
PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**

**One of**

BTNY 2600 - Laboratory Safety **Credits: (1)** or  
CHEM 2600 - Laboratory Safety **Credits: (1)** or  
GEO 2600 - Laboratory Safety **Credits: (1)** or  
MICR 2600 - Laboratory Safety **Credits: (1)** or  
PHYS 2600 - Laboratory Safety **Credits: (1)**

## FORENSIC SCIENCE CONCENTRATION

Core Forensic Science (23 credit hours)

CJ 1350 - Introduction to Forensic Science **Credits: (3)**  
CJ 2340 - Crime Scene Investigation **Credits: (3)**  
CJ 2350 - Laws of Evidence **Credits: (3)**  
CJ 3120 - Professional Practice for the Forensic Expert **Credits: (3)**  
CJ 4110 - Physical Methods in Forensic Science **Credits: (4)**  
CJ 4125 - Research Methods in Forensic Science **Credits: (4)**

***One forensic science elective course (class, workshop, research, etc.) in any department, minimum 3 credit hours, approved by the forensic science program advisor.***

General Science (38 credit hours)

MATH 1210 - Calculus I **Credits: (4)**  
ZOO 1110 LS - Principles of Zoology **Credits: (4)**  
CHEM 1210 PS - Principles of Chemistry I **Credits: (5)**  
CHEM 1220 - Principles of Chemistry II **Credits: (5)**  
CHEM 2310 - Organic Chemistry I **Credits: (4)**  
CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**  
CHEM 2320 - Organic Chemistry II **Credits: (4)**  
CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

***Either***

PHYS 2010 PS - College Physics I **Credits: (5)**  
PHYS 2020 - College Physics II **Credits: (5)**

***or***

PHYS 2210 PS - Physics for Scientists and Engineers I **Credits: (5)**  
PHYS 2220 - Physics for Scientists and Engineers II **Credits: (5)**

Elective Science (27-28)

*Choose one of the following Elective Science disciplines and complete the courses listed:*

Chemical Sciences (28 credit hours)

MATH 1220 - Calculus II **Credits: (4)**  
CHEM 3000 - Quantitative Analysis **Credits: (4)**  
CHEM 3020 - Computer Applications in Chemistry **Credits: (1)**  
CHEM 3050 - Instrumental Analysis **Credits: (4)**  
CHEM 3400 - Molecular Symmetry and Applied Math for Physical Chemistry **Credits: (3)**  
CHEM 3410 - Foundations in Physical Chemistry **Credits: (4)**  
CHEM 4420 - Quantum Chemistry **Credits: (4)**

CHEM 4540 - Spectrometric and Separation Methods **Credits: (4)**

Biological Sciences (27 hours)

CHEM 3070 - Biochemistry I **Credits: (3)**

MICR 2054 LS - Principles of Microbiology **Credits: (4)**

ZOOL 2220 - Diversity of Animals **Credits: (4)**

ZOOL 3200 - Cell Biology **Credits: (4)**

ZOOL 3300 - Genetics **Credits: (4)**

ZOOL 3730 - Population Biology **Credits: (3)**

ZOOL 4300 - Molecular Genetics **Credits: (4)**

## Criminal Justice (BIS)

**Program Prerequisite:** Refer to Integrated Studies (BIS).

**Credit Hour Requirements:** 18 hours of Criminal Justice courses (CJ prefix) selected in consultation with an advisor and approved by the department chair. Thesis completion pursuant to BIS requirements.

## Criminal Justice Minor

**Grade Requirements:** A grade of "C" or better in courses required for a Criminal Justice minor in addition to an overall GPA for these courses of 2.50 or higher. Also refer to the general grade requirements for graduation.

**Credit Hour Requirements:** Minimum of 18 credit hours in Criminal Justice courses (CJ prefix).

## Course Requirements for Minor

Criminal Justice Required Courses (6 credit hours)

CJ 1010 SS - Introduction to Criminal Justice **Credits: (3)**

CJ 3270 - Theories of Crime and Delinquency **Credits: (3)**

Criminal Justice Breadth Courses (6 credit hours)

Select two of the following

CJ 1300 - Corrections: History, Theory and Practice **Credits: (3)**

CJ 1330 - Criminal Law and Courts **Credits: (3)**

CJ 2300 - Policing: History, Theory and Practice **Credits: (3)**

CJ 4200 - Ethical Issues in Criminal Justice **Credits: (3)**

Criminal Justice Elective Courses (6 credit hours)

*Select 6 additional credit hours from Criminal Justice (CJ prefix) courses. An overall total of at least 9 credit hours must be upper division (numbered 3000 or higher). Any course of CJ 1300, 1330, 2300, or 4200 that was taken to fulfill the Breadth requirement may not be used again to fulfill the Elective requirement. Students may not use CJ 4830 Directed Readings or CJ 4950 Field Trips/Travel Study to fill this requirement.*

# Criminal Justice Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Geography

**Department Chair:** Eric Ewert

**Location:** Science Lab Building, SL 520 for Fall Semester, Social Science Building, SS 350 starting Spring Semester

**Telephone Contact:** Sarah Rivkind, 801-626-6207

**Professors:** Daniel Bedford, Bryan Dorsey, Eric Ewert, Julie Rich; **Associate Professors:** Jeremy Bryson, Alice Mulder; **Instructor:** Jesse Morris

Geography is the study of the spatial organization, arrangement, function, movement, and interrelationships of phenomena on the surface of the earth. It is a science concerned with both physical and cultural phenomena and interfaces with other disciplines in the natural sciences, social & behavioral sciences, business, and economics.

### Interdisciplinary Minors

The Geography Department participates in the Asian Studies, Environmental Studies, Ethnic Studies, European Studies and Latin American Studies Minor Programs and the Urban and Regional Planning Emphasis Program. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

## Geography (BS)

**Program Prerequisite:** Not required.

**Minor:** Not required.

**Grade Requirements:** A grade of "C-" or better in courses required for this major, and an overall GPA in the major of 2.00. Also refer to the general grade requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 36 of these is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 27 of these are required within the major.

### Advisement

All Geography students are encouraged to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6207 for more information or to schedule an appointment.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). No special admission or application requirements are needed for this program. (Also refer to the Department Advisor Referral List.)

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. One of the following courses is required for the Geography major or Geography Teaching major: GEOG 1000, GEOG 1300, or GEOG 1520 (these courses will also satisfy general education requirements).

## Major Course Requirements for BS Degree

### Core Courses Required (12 credit hours)

- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**
- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**
- GEOG 3600 - Quantitative Methods in Geography **Credits: (3)** Spring Semester only
- GEOG 4990 - Research Seminar **Credits: (3)** Fall Semester only

## Track A

### (General Geography Emphasis – 24-25 credit hours)

#### Required Systematic Courses (12-13 credit hours)

*Select 4 of the following, with at least 1 course from each group.*

#### Group 1

- GEOG 3050 - Weather and Climate **Credits: (3)**
- GEOG 3070 - Wetland Environments **Credits: (3)**
- GEOG 3080 - Arid Lands **Credits: (3)**
- GEOG 3090 - Arctic and Alpine Environments **Credits: (3)**
- GEO 3010 - Oceanography and Earth Systems **Credits: (3)**
- GEO 3150 - Geomorphology **Credits: (4)**
- GEO 3210 - Quaternary Environmental Change **Credits: (3)**

#### Group 2

- GEOG 3060 - World Environmental Issues **Credits: (3)**
- GEOG 3210 - Urban Geography **Credits: (3)**
- GEOG 3300 - Historical Geography of the United States **Credits: (3)**
- GEOG 3360 - Economic Geography **Credits: (3)**

#### Group 3

- GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**
- GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**
- GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**
- GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**

#### Electives (12 credit hours)

*Select from Geography courses (either upper or lower division) twelve additional credit hours*

## Track B

(Regional Emphasis with Concentrations in Asian Studies, Ethnic Studies, European Studies, or Latin American Studies – 24 credit hours)

Required Regional Courses (6 credit hours)

*Select two of the following*

GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3) \***

GEOG 3500 - Geography of Utah **Credits: (3)**

GEOG 3540 - Geography of Latin America **Credits: (3)**

GEOG 3590 - Geography of Europe **Credits: (3)**

GEOG 3620 - Geography of Russia and the Former USSR **Credits: (3)**

GEOG 3640 - Geography of Asia **Credits: (3)**

GEOG 3660 - Geography of China and Japan **Credits: (3)**

GEOG 3740 - Geography of Africa **Credits: (3)**

GEOG 3780 - Geographic Area Studies **Credits: (1-3)**

Note:

*\* Required for Ethnic Studies concentration*

Asian Studies, Ethnic Studies, European Studies, or Latin American Studies Electives (18 credit hours)

*From the Asian Studies Minor Program list of classes, or from the Ethnic Studies Emphasis Program list of classes, or from the European Studies Minor Program list of classes, or from Latin American Studies Minor Program list of classes select 18 credit hours from at least three different departments or disciplines. No regional courses from the preceding list may be counted twice.*

## Track C

(Regional Emphasis with Concentration in Global Studies – 24 credit hours)

Required Regional Courses (12 credit hours)

*Select four of the following*

GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**

GEOG 3500 - Geography of Utah **Credits: (3)**

GEOG 3540 - Geography of Latin America **Credits: (3)**

GEOG 3590 - Geography of Europe **Credits: (3)**

GEOG 3620 - Geography of Russia and the Former USSR **Credits: (3)**

GEOG 3640 - Geography of Asia **Credits: (3)**

GEOG 3660 - Geography of China and Japan **Credits: (3)**

GEOG 3740 - Geography of Africa **Credits: (3)**

GEOG 3780 - Geographic Area Studies **Credits: (1-3)**

Technique Courses (3 credit hours)

*Select one of the following*

GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**

GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**

Additional Upper Division Courses (9 credit hours)

*Students must take 9 additional hours in geography. These may be environmental, cultural, regional, or technique courses. Support courses in related fields that emphasize global and regional studies are encouraged.*

## **Track D**

(Technical Emphasis – 24 credit hours)

Required Technical Courses (15 credit hours)

GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**

GEO 3400 - Remote Sensing I **Credits: (4)**

GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**

GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)**

Technical Elective Courses (9 credit hours)

*Select 9 hours of the following*

GEOG 3390 - Aerial Photo Interpretation **Credits: (3)**

GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**

GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**

GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**

GEO 1115 - Physical Geology Lab **Credits: (1)**

GEO 4400 - Remote Sensing II: Advanced Digital Image Processing **Credits: (4)**

## **Track E**

(Environmental Studies Emphasis -- 24 credit hours)

Required Geography Courses (4 credit hours)

GEOG 1001 - Natural Environments Field Studies **Credits: (1)**

GEOG 3060 - World Environmental Issues **Credits: (3)**

Environmental Studies Electives (20 credit hours)

*Select 20 credit hours from any of the courses listed below, with at least 9 credit hours chosen from at least three different programs.\**

BTNY 2203 - Home and Garden Plants **Credits: (3)**

BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**

BTNY 2950 - Elementary Field Botany **Credits: (1-2)**

BTNY 3214 - Soils **Credits: (4)** \*\*

BTNY 3403 - Environment Appreciation **Credits: (3)** \*\*

BTNY 3454 - Plant Ecology **Credits: (4)** \*\*

BTNY 3473 - Plant Geography **Credits: (3)** \*\*

ECON 1100 SS - Environmental Issues and Economic Policy **Credits: (3)**

ENGL 3520 HU - Literature of the Natural World **Credits: (3)**

GEOG 1002 - Map Reading and Land Navigation **Credits: (2)**

GEOG 1500 PS - The Science of Global Warming: Myths, Realities and Solutions **Credits: (3)**

GEOG 3050 - Weather and Climate **Credits: (3)** \*\*

GEOG 3070 - Wetland Environments **Credits: (3)**

GEOG 3080 - Arid Lands **Credits: (3)** \*\*  
 GEOG 3090 - Arctic and Alpine Environments **Credits: (3)** \*\*  
 GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**  
 GEOG 3460 - Advanced Cartography and GIS **Credits: (3)** \*\*  
 GEOG 3500 - Geography of Utah **Credits: (3)**  
 GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**  
 GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)** \*\*  
 GEOG 4950 - Advanced Regional Field Studies **(1-3)**  
 GEOG 4950 - Advanced Regional Field Studies **Credits: (1-3)**  
 GEO 3010 - Oceanography and Earth Systems **Credits: (3)** \*\*  
 GEO 3150 - Geomorphology **Credits: (4)** \*\*  
 GEO 3210 - Quaternary Environmental Change **Credits: (3)** \*\*  
 GEO 3400 - Remote Sensing I **Credits: (4)** \*\*  
 GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)** \*\*  
 GEO 4220 - Technical and Applicational Issues in GIS **Credits: (4)** \*\*  
 HNRS 1500 PS - Perspectives in the Physical Sciences **Credits: (3)**  
 HNRS 1540 HU - Perspectives in the Humanities **Credits: (3)**  
 HIST 3270 - American Environmental History **Credits: (3)**  
 MICR 1153 LS - Elementary Public Health **Credits: (3)**  
 MICR 3484 - Environmental Microbiology **Credits: (4)** \*\*  
 MICR 3502 - Environmental Health **Credits: (2)** \*\*  
 SOC 3300 - Environment and Society **Credits: (3)**  
 ZOOL 3450 - Ecology **Credits: (4)** \*\*  
 ZOOL 3470 - Zoogeography **Credits: (3)** \*\*  
 ZOOL 3500 - Conservation Biology **Credits: (3)** \*\*  
 ZOOL 4470 - Wildlife Ecology and Management **Credits: (4)** \*\*

Note:

*\* Other environmental courses not listed here are acceptable with approval of advisor. This includes courses transferred in from other colleges or universities and any directed reading or individual research courses in any department where the topic deals primarily with the natural environment.*

*\*\* Courses with prerequisites.*

## Track F

Urban and Regional Planning Emphasis (24 credit hours)

Courses Required (6 credit hours)

GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**  
 GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**

Electives (18 credit hours) \*

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)**  
 GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**  
 GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**  
 GEOG 3210 - Urban Geography **Credits: (3)**  
 GEOG 3360 - Economic Geography **Credits: (3)**  
 GEO 4150 - Environmental Assessment **Credits: (3)**  
 GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**  
 MICR 1153 LS - Elementary Public Health **Credits: (3)**  
 POLS 3700 - Bureaucratic Politics **Credits: (3)**  
 POLS 3750 - Urban Government and Politics **Credits: (3)**

SOC 3840 - Cities and Urban Life **Credits: (3)**  
SOC 3850 - Race & Ethnicity **Credits: (3)**  
SOC 3300 - Environment and Society **Credits: (3)**

Note:

*\* Other courses related to land use planning not listed here are acceptable with approval of advisor. This includes courses transferred in from other colleges or universities and any directed reading or individual research courses in any department where the topic deals primarily with land use planning.*

## Geography Teaching (BS)

**Program Prerequisite:** Must satisfy Teacher Education admission and licensure requirements (see Department of Teacher Education).

**Minor:** Required.

**Grade Requirements:** A grade of "C-" or better in courses required for this major and an overall GPA within the major of 2.00.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 36 of these is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 18-24 of these are required within the major.

### Advisement

Teaching majors are encouraged to consult with advisors in both the College of Social and Behavioral Sciences (call 801-626-6197) and the College of Education (call 801-626-6269).

### Admissions Requirements

Declare your program of study (see Enrollment Services and Information). Geography Teaching majors must satisfy Teacher Education admission and licensure requirements. (See Teacher Education Department.)

### General Education

Refer to Degree Requirements of this catalog for Bachelor of Science requirements. The following general education courses required for the Geography Teaching major also will satisfy general education requirements: GEOG 1000, GEOG 1300, and GEOG 1520.

## Major Course Requirements for BS Degree

*Students completing the department's Regular Emphasis (see Geography (BS)) with a General Geography concentration (Track A) and HIST 4500, in addition to the courses required by the Teacher Education program, will be recognized as having completed a program of study that is equivalent of the Geography Teaching major.*

### Geography Courses Required (18 credit hours)

GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**  
GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**  
GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**  
GEOG 3500 - Geography of Utah **Credits: (3)**  
GEOG 3600 - Quantitative Methods in Geography **Credits: (3)**

GEOG 4990 - Research Seminar **Credits: (3)**

### Electives (6 credit hours)

*Select two of the following, including one non-western or third world region*

- GEOG 3540 - Geography of Latin America **Credits: (3)**
- GEOG 3590 - Geography of Europe **Credits: (3)**
- GEOG 3620 - Geography of Russia and the Former USSR **Credits: (3)**
- GEOG 3640 - Geography of Asia **Credits: (3)**
- GEOG 3660 - Geography of China and Japan **Credits: (3)**
- GEOG 3740 - Geography of Africa **Credits: (3)**
- GEOG 3780 - Geographic Area Studies **Credits: (1-3)**

### Technique Courses (3 credit hours)

*Select one of the following*

- GEOG 3390 - Aerial Photo Interpretation **Credits: (3)**
- GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**
- GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**

### Additional Upper Division Courses (9 credit hours)

*Students must take 9 additional hours in geography. These may be physical, cultural, regional, or technique courses. Support courses in related majors are encouraged.*

#### **Note:**

*Geography Teaching majors are also required to take HIST 4500, Teaching Social Studies in Grades 5-12, (3) in addition to the courses required by the Teacher Education program.*

## **Environmental Studies Minor**

**Coordinator:** Dr. Alice Mulder

**Location:** SS 302

**Telephone:** 801-626-6198

The Environmental Studies Minor is an interdisciplinary degree that focuses on the work of science in human activity. The curriculum is rooted in science to ground factual knowledge. However, its trunk is solidly comprised of social science and humanities courses because they teach the application of science in policy-making, business decisions and historical precedent even as they call upon the arts for their expression and upon ethics in consideration of health and social justice issues. The minor reaches across campus because all disciplines play an essential role in shaping environmental thought.

Students will gain an appreciation for local, national and international environmental issues and problems as well as their potential solutions. They will develop a personal philosophy about the environment's role in their lives and their own ability to affect nature and their physical environment by making ethical choices.

**Grade Requirements:** A grade of "C" or better is required for all courses.

**Credit Hour Requirements:** A minimum of 25 credit hours is required, at least 15 of these must be upper division (numbered 3000 or higher).

Students must select courses from outside their major academic department whenever a choice is offered. Students are encouraged to consider diversity in curriculum selection.

## Course Requirements for Minor

### Core Courses (19 credit hours)

Select a minimum of 19 hours from the following list

PHYS 2090 PS - Environmental Physics - Energy and Power **Credits: (3)**

GEOG 3060 - World Environmental Issues **Credits: (3)** \*

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** (4 credit hours required)

**or**

GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)** and

GEOG 1001 - Natural Environments Field Studies **Credits: (1)**

**or**

GEO 1060 PS - Environmental Geosciences **Credits: (3)** and

GEO 1065 - Environmental Geosciences Lab **Credits: (1)**

ECON 1100 SS - Environmental Issues and Economic Policy **Credits: (3)** or

POLS 4940 - Topics in American Politics & Thought **Credits: (3)** (3 credit hours required)

ENGL 3520 HU - Literature of the Natural World **Credits: (3)** or

HIST 3270 - American Environmental History **Credits: (3)**

ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)** \* or

HNRS 3900 - Honors Colloquium **Credits: (3)**

### Elective Courses (6 credit hours)

Select a minimum of 6 hours from the following list with no more than one class from each department

BTNY 1303 LS - Plants in Human Affairs **Credits: (3)**

BTNY 2413 - Introduction to Natural Resource Management **Credits: (3)**

BTNY 3454 - Plant Ecology **Credits: (4)** \*

CS 4830 - Advanced Topics in Computer Science **Credits: (1-4)** Social (and Environmental) Implications of Computing (1 credit hour required) \*

ENGL 3580 - Regional Literature in America **Credits: (3)**

ENGL 3750 HU - Topics and Ideas in Literature **Credits: (3)**

ENGL 4530 - American Literature: Realism and Naturalism **Credits: (3)**

ENGL 4710 - Eminent Authors **Credits: (3)**

*as approved by the Environmental Studies Advisor*

MENG 6030 - Studies in Literary Theory and Criticism **Credits: (3)**

GEO 1130 PS - Introduction to Meteorology **Credits: (3)**

GEO 3010 - Oceanography and Earth Systems **Credits: (3)** \*

GEOG 3050 - Weather and Climate **Credits: (3)** \*

GEOG 3070 - Wetland Environments **Credits: (3)** \*

GEOG 3080 - Arid Lands **Credits: (3)** \*

GEOG 3090 - Arctic and Alpine Environments **Credits: (3)** \*

HIM 3200 - Epidemiology and Biostatistics **Credits: (3)** \*

HNRS 1540 HU - Perspectives in the Humanities **Credits: (3)**

HNRS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

*as approved by the Environmental Studies Advisor*

MICR 3484 - Environmental Microbiology **Credits: (4)** \*

MICR 3502 - Environmental Health **Credits: (2)** \*

PHYS 3570 - Foundations of Science Education **Credits: (3)**  
OCRE 4550 - Outdoor Education Philosophies & Principles **Credits: (3)**  
SOC 3300 - Environment and Society **Credits: (3)**  
ZOO 1010 LS - Animal Biology **Credits: (3)**  
ZOO 3450 - Ecology **Credits: (4) \***  
ZOO 3500 - Conservation Biology **Credits: (3) \***

Note:

*\* A prerequisite or consent of the instructor is required. Most prerequisites are in the core curriculum.*

## Geography Minor

### Geography Minor and Teaching Minor

**Grade Requirements:** A grade of "C-" or better in courses used toward the minor in addition to an overall GPA for these courses of 2.00 or higher.

**Credit Hour Requirements:** Minimum of 21 credit hours in Geography courses.

*Students who select the Geography Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department).*

#### Course Requirements for Minor

Geography Courses Required (9 credit hours)

GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**  
GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**  
GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**

Elective Geography Courses (12 credit hours)

*Select 12 additional credit hours of upper division Geography courses.*

*It is required that Geography Teaching minors also take HIST 4500, Teaching Social Studies in Grades 5-12, (3) in addition to the courses required by the Teacher Education program.*

## Geography Teaching Minor

### Geography Minor and Teaching Minor

**Grade Requirements:** A grade of "C-" or better in courses used toward the minor in addition to an overall GPA for these courses of 2.00 or higher.

**Credit Hour Requirements:** Minimum of 21 credit hours in Geography courses.

*Students who select the Geography Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Teacher Education Department).*

## Course Requirements for Minor

Geography Courses Required (9 credit hours)

GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**

GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**

Elective Geography Courses (12 credit hours)

*Select 12 additional credit hours of upper division Geography courses.*

*It is required that Geography Teaching minors also take HIST 4500, Teaching Social Studies in Grades 5-12, (3) in addition to the courses required by the Teacher Education program.*

## Geography Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of History

**Department Chair:** Sara Dant

**Location:** Social Science Building, Room 234

**Telephone Contact:** Jenna Daniels, 801-626-6706

**Professors:** Sara Dant, Gregory Lewis, Kathryn MacKay, Susan Matt, Richard Sadler, Gene Sessions, Eric Swedin;

**Associate Professors:** Brady Brower, Vikki Deakin, Stephen Francis, LaRae Larkin, Branden Little; **Assistant**

**Professor:** Jeffrey Richey

History is a record of political, social and cultural events and achievements of humankind. Historians analyze and evaluate this record in an attempt to understand and interpret the present.

The history offerings are designed to: provide adequate programs to prepare teachers; prepare students who plan to do graduate work; and provide courses which contribute to the general education of all students.

### Interdisciplinary Minors

The History Department participates in the Asian Studies, Environmental Studies, Ethnic Studies, European Studies and Latin American Studies Minor Programs. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

# History (BA)

**Program Prerequisite:** Not required.

**Minor:** Required. The Public History and Asian Studies minors also eligible with a History Major.

**Grade Requirements:** A grade of "C" or better in courses applied toward this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation..

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 36 of these is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 24 of these are required within the major.

## Advisement

History majors are required to meet with their faculty advisor at least annually for course and program advisement. They must also meet with their advisor or the department chair before registration for HIST 4990. Call 801-626-6706 for additional information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the History major.

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

## Major Course Requirements for BA Degree

### History Core Courses Required (13 credit hours)

HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**

HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**

HIST 2000 - Introduction to the Craft of History **Credits: (1)**

HIST 2700 - History of the United States to 1877 **Credits: (3)**

HIST 2710 - History of the United States since 1877 **Credits: (3)**

Note:

*All the above should be taken before upper-division course work (courses numbered 3000 and above).*

### Language Courses Required to fulfill the BA (12 credit hours)

6 credit hours of foreign language

and the following language arts courses

HIST 4985 - Historical Research and Methods **Credits: (3)**

HIST 4990 - Senior Seminar **Credits: (3)** \*

Note:

*\* Should be taken during senior year. HIST 4985 is a prerequisite to HIST 4990.*

## Upper Division Elective Courses (18 credit hours)

*Select at least one course in each area.*

### North American History

- HIST 3010 - Native American History: 1300 to Present **Credits: (3)**
- HIST 3030 - African-American History **Credits: (3)**
- HIST 3050 - History of U.S. Latinos **Credits: (3)**
- HIST 3070 - Women in American History: 1600 to Present **Credits: (3)**
- HIST 3090 - American Social History **Credits: (3)**
- HIST 3110 - American Ideas and Culture **Credits: (3)**
- HIST 3130 - U.S. Urban History **Credits: (3)**
- HIST 3210 - U.S. Constitutional History **Credits: (3)**
- HIST 3230 - American Foreign Relations **Credits: (3)**
- HIST 3250 - Religion in American History **Credits: (3)**
- HIST 3270 - American Environmental History **Credits: (3)**
- HIST 3280 - American Military History from 1500 to 1890 **Credits: (3)**
- HIST 3290 - American Military History from 1890 to the Present **Credits: (3)**
- HIST 4010 - Colonial America **Credits: (3)**
- HIST 4020 - Era of the American Revolution: 1763-1800 **Credits: (3)**
- HIST 4030 - New Nation: 1800-1840 **Credits: (3)**
- HIST 4040 - Era of the Civil War and Reconstruction: 1840-1877 **Credits: (3)**
- HIST 4050 - U.S. in the Gilded Age and Progressive Era: 1877-1919 **Credits: (3)**
- HIST 4060 - Twentieth-Century United States: 1919-1945 **Credits: (3)**
- HIST 4070 - Twentieth-Century United States since 1945 **Credits: (3)**
- HIST 4110 - History of the American West to 1900 **Credits: (3)**
- HIST 4120 - The American West since 1900 **Credits: (3)**
- HIST 4130 - History of Utah **Credits: (3)**
- HIST 4710 - Special Issues and Topics in American History **Credits: (3)**

### European History

- HIST 4210 - Ancient History **Credits: (3)**
- HIST 4220 - History of the Middle Ages 300-1300 **Credits: (3)**
- HIST 4230 - Renaissance and Reformation - Europe: 1300-1660 **Credits: (3)**
- HIST 4240 - Absolutism, Enlightenment and Revolution - Europe: 1660-1815 **Credits: (3)**
- HIST 4250 - Nineteenth-Century Europe **Credits: (3)**
- HIST 4260 - Twentieth-Century Europe **Credits: (3)**
- HIST 4280 - History of Christianity in Europe **Credits: (3)**
- HIST 4310 - History of Russia to 1917 **Credits: (3)**
- HIST 4320 - Russia since 1917 **Credits: (3)**
- HIST 4330 - History of England to 1485 **Credits: (3)**
- HIST 4335 - Tudor and Stuart England **Credits: (3)**
- HIST 4340 - History of England since 1714 **Credits: (3)**
- HIST 4350 - History of Modern Germany **Credits: (3)**
- HIST 4370 - History of Modern France 1789-present **Credits: (3)**
- HIST 4410 - History of Spain and Portugal **Credits: (3)**
- HIST 4450 - History of Modern Eastern Europe since 1815 **Credits: (3)**
- HIST 4720 - Special Issues and Topics in European History **Credits: (3)**

### Global, Comparative, and General

- HIST 3350 - History and Philosophy of Science **Credits: (3)**
- HIST 4510 - Twentieth Century World **Credits: (3)**
- HIST 4530 - Far Eastern History **Credits: (3)**

HIST 4550 - Southeast Asian History **Credits: (3)**  
HIST 4590 - Middle Eastern History **Credits: (3)**  
HIST 4610 - History of Africa **Credits: (3)**  
HIST 4630 - History of Ancient and Colonial Latin America **Credits: (3)**  
HIST 4650 - Modern Latin America **Credits: (3)**  
HIST 4670 - History of Mexico **Credits: (3)**  
HIST 4730 - Special Issues and Topics in Global and Comparative History **Credits: (3)**

Other Electives

*May be taken to meet credit hour requirements.*

HIST 3400 - Principles of Public History **Credits: (3)**  
HIST 3500 - Historic Preservation **Credits: (3)**  
HIST 4810 Experimental Courses **(1-3)**  
HIST 4810 - Experimental Courses **Credits: (3)**  
HIST 4830 - Directed Readings **Credits: (1-3)** (*max 3 cr towards major/minor*)  
HIST 4860 - Internships in Historical Studies **Credits: (1-6)** (*max 6 cr towards major/minor*)  
HIST 4920 - Short Courses, Workshops, and Special Programs **Credits: (1-6)** (*max 6 cr towards major/minor*)

Note:

*History majors are encouraged to also take POLS 1100 AI - American National Government (3).*

## History Teaching (BA)

**Program Prerequisite:** Not required. However, History Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

**Minor:** Required. Does not need to be in the teaching field. Asian Studies minor eligible with History Teaching major.

**Grade Requirements:** A grade of "C" or better in courses applied toward this major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation on Degree Requirements.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 36 of these is required within the major. A total of 40 upper division credit hours is required (courses numbered 3000 and above); 24 of these are required within the major.

### Advisement

History Teaching majors are required to meet with their faculty advisor at least annually for course and program advisement. They must also meet with their advisor or the department chair before registration for HIST 4990. Call 801-626-6706 for additional information or to schedule an appointment. Teaching majors are also encouraged to consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the History Teaching major. However, Teaching majors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department). (Also refer to the Department Advisor Referral List.)

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements.

## Major Course Requirements for BA Degree

### History Core Courses Required (13 credit hours)

- HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**
- HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**
- HIST 2000 - Introduction to the Craft of History **Credits: (1)**
- HIST 2700 - History of the United States to 1877 **Credits: (3)**
- HIST 2710 - History of the United States since 1877 **Credits: (3)**

Note:

*All the above should be taken before upper-division course work (courses numbered 3000 and above).*

*In addition, please note that HIST 4500 is required for completion of the Secondary Education Licensure program.*

### Language Courses Required to fulfill the BA (12 credit hours)

6 credit hours of foreign language

and the following language arts courses

- HIST 4985 - Historical Research and Methods **Credits: (3)**
- HIST 4990 - Senior Seminar **Credits: (3)** \*

Note:

*\* Should be taken during senior year. HIST 4985 is a prerequisite to HIST 4990.*

### Upper Division Elective Courses (18 credit hours)

*Select at least one course in each area.*

*History Teaching majors must select either HIST 4110, HIST 4120 or HIST 4130 as part of their 18 credit hours.*

### North American History

- HIST 3010 - Native American History: 1300 to Present **Credits: (3)**
- HIST 3030 - African-American History **Credits: (3)**
- HIST 3050 - History of U.S. Latinos **Credits: (3)**
- HIST 3070 - Women in American History: 1600 to Present **Credits: (3)**
- HIST 3090 - American Social History **Credits: (3)**
- HIST 3110 - American Ideas and Culture **Credits: (3)**
- HIST 3130 - U.S. Urban History **Credits: (3)**
- HIST 3210 - U.S. Constitutional History **Credits: (3)**
- HIST 3230 - American Foreign Relations **Credits: (3)**
- HIST 3250 - Religion in American History **Credits: (3)**
- HIST 3270 - American Environmental History **Credits: (3)**
- HIST 3280 - American Military History from 1500 to 1890 **Credits: (3)**

- HIST 3290 - American Military History from 1890 to the Present **Credits: (3)**
- HIST 4010 - Colonial America **Credits: (3)**
- HIST 4020 - Era of the American Revolution: 1763-1800 **Credits: (3)**
- HIST 4030 - New Nation: 1800-1840 **Credits: (3)**
- HIST 4040 - Era of the Civil War and Reconstruction: 1840-1877 **Credits: (3)**
- HIST 4050 - U.S. in the Gilded Age and Progressive Era: 1877-1919 **Credits: (3)**
- HIST 4060 - Twentieth-Century United States: 1919-1945 **Credits: (3)**
- HIST 4070 - Twentieth-Century United States since 1945 **Credits: (3)**
- HIST 4110 - History of the American West to 1900 **Credits: (3)**
- HIST 4120 - The American West since 1900 **Credits: (3)**
- HIST 4130 - History of Utah **Credits: (3)**
- HIST 4710 - Special Issues and Topics in American History **Credits: (3)**

## European History

- HIST 4210 - Ancient History **Credits: (3)**
- HIST 4220 - History of the Middle Ages 300-1300 **Credits: (3)**
- HIST 4230 - Renaissance and Reformation - Europe: 1300-1660 **Credits: (3)**
- HIST 4240 - Absolutism, Enlightenment and Revolution - Europe: 1660-1815 **Credits: (3)**
- HIST 4250 - Nineteenth-Century Europe **Credits: (3)**
- HIST 4260 - Twentieth-Century Europe **Credits: (3)**
- HIST 4310 - History of Russia to 1917 **Credits: (3)**
- HIST 4320 - Russia since 1917 **Credits: (3)**
- HIST 4330 - History of England to 1485 **Credits: (3)**
- HIST 4335 - Tudor and Stuart England **Credits: (3)**
- HIST 4340 - History of England since 1714 **Credits: (3)**
- HIST 4350 - History of Modern Germany **Credits: (3)**
- HIST 4370 - History of Modern France 1789-present **Credits: (3)**
- HIST 4410 - History of Spain and Portugal **Credits: (3)**
- HIST 4450 - History of Modern Eastern Europe since 1815 **Credits: (3)**
- HIST 4720 - Special Issues and Topics in European History **Credits: (3)**

## Global, Comparative, and General

- HIST 3350 - History and Philosophy of Science **Credits: (3)**
- HIST 4510 - Twentieth Century World **Credits: (3)**
- HIST 4530 - Far Eastern History **Credits: (3)**
- HIST 4550 - Southeast Asian History **Credits: (3)**
- HIST 4590 - Middle Eastern History **Credits: (3)**
- HIST 4610 - History of Africa **Credits: (3)**
- HIST 4630 - History of Ancient and Colonial Latin America **Credits: (3)**
- HIST 4650 - Modern Latin America **Credits: (3)**
- HIST 4670 - History of Mexico **Credits: (3)**
- HIST 4730 - Special Issues and Topics in Global and Comparative History **Credits: (3)**

## Other Electives

*May be taken to meet credit hour requirements.*

- HIST 3400 - Principles of Public History **Credits: (3)**
- HIST 3500 - Historic Preservation **Credits: (3)**
- HIST 4830 - Directed Readings **Credits: (1-3)**
- HIST 4860 - Internships in Historical Studies **Credits: (1-6)**
- HIST 4920 - Short Courses, Workshops, and Special Programs **Credits: (1-6)**

Note: History Teaching majors are encouraged to also take POLS 1100 AI, American National Government (3).

# Social Science Composite Teaching (BA)

**Program Prerequisite:** Must satisfy Teacher Education admission and licensure requirements (see Teacher Education Department).

**Minor:** Not required.

**Grade Requirements:** A grade of "C" or better in courses applied toward this major (a grade of "C-" is not acceptable). Also refer to the requirements of the Teacher Education Program.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation--a minimum of 66 of these is required within the Social Science Composite Teaching Major. A total of 40 upper-division credit hours is required (courses numbered 3000 and above).

## Advisement

After declaring the Composite major, a student should meet with the Composite Coordinator to establish the track to be taken as part of the program. The student is also encouraged to consult with the advisors in the Teacher Education Department. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). Social Science Composite Teaching majors must satisfy Teacher Education admission and licensure requirements (see Teacher Education Department in this catalog).

## General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements for the teaching major selected.

## Major Course Requirement for BA

### Required Major Courses

*Complete a Teaching major in one of the following three areas*

- History (minimum of 36 credit hours)
- Geography (minimum of 36 credit hours)
- Political Science (minimum of 39 credit hours)

*The student will also fulfill the requirements of the track that corresponds with their major.*

## History Teaching Major Track

*Fulfill all the requirements for a History Teaching Major and also take the following:*

### Geography Courses (9 credit hours)

GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

One of the following

- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**

One of the following

- GEOG 3060 - World Environmental Issues **Credits: (3)**
- GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**
- GEOG 3500 - Geography of Utah **Credits: (3)**

### Political Science Courses (9 credit hours)

- POLS 1100 AI - American National Government **Credits: (3)**

One of the following

- POLS 3140 - Foreign Policy of the United States **Credits: (3)**
- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**

One of the following

- POLS 3600 - Political Parties **Credits: (3)**
- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 4640 - American Presidency **Credits: (3)**

### Psychology Courses (9 credit hours)

- PSY 1010 SS - Introductory Psychology **Credits: (3)**

Two of the following

- PSY 2730 - Biopsychology **Credits: (3)**
- PSY 3010 - Abnormal Psychology **Credits: (3)**
- PSY 3430 - Theories of Personality **Credits: (3)**
- PSY 3460 - Social Psychology **Credits: (3)**

### Social Science Elective Course (3 credit hours)

One of the following

- ANTH 3600 - Culture Area Studies **Credits: (1-3)** (3 credit hours required)
- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- SOC 1020 SS/DV - Social Problems **Credits: (3)**

## Geography Teaching Major Track

*Fulfill all the requirements for a Geography Teaching Major and also take the following:*

### History Courses (15 credit hours)

One of the following

- HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**
- HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**

Both of the following

- HIST 2700 - History of the United States to 1877 **Credits: (3)**
- HIST 2710 - History of the United States since 1877 **Credits: (3)**

One of the following

- HIST 3010 - Native American History: 1300 to Present **Credits: (3)**
- HIST 3030 - African-American History **Credits: (3)**
- HIST 3050 - History of U.S. Latinos **Credits: (3)**
- HIST 3070 - Women in American History: 1600 to Present **Credits: (3)**
- HIST 3090 - American Social History **Credits: (3)**
- HIST 3110 - American Ideas and Culture **Credits: (3)**
- HIST 3130 - U.S. Urban History **Credits: (3)**
- HIST 3210 - U.S. Constitutional History **Credits: (3)**
- HIST 3230 - American Foreign Relations **Credits: (3)**
- HIST 3250 - Religion in American History **Credits: (3)**
- HIST 3270 - American Environmental History **Credits: (3)**

One of the following

- HIST 4110 - History of the American West to 1900 **Credits: (3)**
- HIST 4120 - The American West since 1900 **Credits: (3)**
- HIST 4130 - History of Utah **Credits: (3)**

Political Science Courses (9 credit hours)

- POLS 1100 AI - American National Government **Credits: (3)**

One of the following

- POLS 3140 - Foreign Policy of the United States **Credits: (3)**
- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**

One of the following

- POLS 3600 - Political Parties **Credits: (3)**
- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 4640 - American Presidency **Credits: (3)**

Psychology Course (3 credit hours)

- PSY 1010 SS - Introductory Psychology **Credits: (3)**

Social Science Elective Course (3 credit hours)

One of the following

- ANTH 3600 - Culture Area Studies **Credits: (1-3)** (3 credit hours required)
- ECON 1010 SS - Economics as a Social Science **Credits: (3)**
- SOC 1020 SS/DV - Social Problems **Credits: (3)**

## Political Science Teaching Major Track

Fulfill all the requirements for a Political Science Teaching Major and also take the following:

### History Courses (15 credit hours)

One of the following

- HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**
- HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**

Both of the following

- HIST 2700 - History of the United States to 1877 **Credits: (3)**
- HIST 2710 - History of the United States since 1877 **Credits: (3)**

One of the following

- HIST 4010 - Colonial America **Credits: (3)**
- HIST 4020 - Era of the American Revolution: 1763-1800 **Credits: (3)**
- HIST 4030 - New Nation: 1800-1840 **Credits: (3)**
- HIST 4040 - Era of the Civil War and Reconstruction: 1840-1877 **Credits: (3)**
- HIST 4050 - U.S. in the Gilded Age and Progressive Era: 1877-1919 **Credits: (3)**
- HIST 4060 - Twentieth-Century United States: 1919-1945 **Credits: (3)**
- HIST 4070 - Twentieth-Century United States since 1945 **Credits: (3)**

One of the following

- HIST 4110 - History of the American West to 1900 **Credits: (3)**
- HIST 4120 - The American West since 1900 **Credits: (3)**
- HIST 4130 - History of Utah **Credits: (3)**

### Geography Courses (9 credit hours)

- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

One of the following

- GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**
- GEOG 1520 SS/DV - Geography of the United States and Canada **Credits: (3)**

One of the following

- GEOG 3060 - World Environmental Issues **Credits: (3)**
- GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**
- GEOG 3500 - Geography of Utah **Credits: (3)**

### Psychology Course (3 credit hours)

- PSY 1010 SS - Introductory Psychology **Credits: (3)**

## Social Science Elective Course (3 credit hours)

One of the following

ANTH 3600 - Culture Area Studies **Credits: (1-3)** (3 credit hours required)

ECON 1010 SS - Economics as a Social Science **Credits: (3)**

SOC 1020 SS/DV - Social Problems **Credits: (3)**

## History Minor

**Grade Requirements:** A grade of "C" or better in courses applied toward the minor (a grade of "C-" is not acceptable) in addition to an overall GPA for these courses of 2.50 or higher.

**Credit Hour Requirements:** Minimum of 24 credit hours in History courses. Transferring students with History minors must take at least one approved History course at Weber State.

### Course Requirements for Minor

History Courses Required (6 credit hours)

HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**

HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**

Upper-division History Electives (18 credit hours)

*Select at least 18 credit hours from the upper-division History courses. These courses are listed under the History Program.*

## Public History Minor

**Coordinator:** Dr. Kathryn L. MacKay

**Location:** Social Science, Room 244

**Telephone:** 801-626-6782 email: kmackay@weber.edu

**Grade Requirements:** A grade of "C" or better in courses used toward this minor (a grade of "C-" is not acceptable) in addition to an overall GPA for these courses of 2.50 or higher.

**Credit Hour Requirements:** A minimum of 24 credit hours is required.

*This minor may be taken by all majors, including those majoring in History. Courses may not be counted for both the History major and this minor. This minor may be taken as a component of the Bachelor of Integrated Studies.*

### Course Requirements for Minor

Required Core Courses (15 credit hours)

HIST 3400 - Principles of Public History **Credits: (3)**

One additional upper division course in History (3 credits) taken in consultation with coordinator.

HIST 4860 - Internships in Historical Studies **Credits: (1-6)** (6 credit hours required)

One of the following (3 credit hours)

HIST 3500 - Historic Preservation **Credits: (3)**

ART 4010 - Museum Methods **Credits: (3)**

Required Interdisciplinary Courses (9 credit hours)

*Only 6 credit hours may be taken under one course prefix*

ANTH 3100 - Prehistory of North America **Credits: (3)**

ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)** (3 credit hours required)

ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**

ANTH 3600 - Culture Area Studies **Credits: (1-3)** (3 credit hours required)

ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**

ART 3420 A-D Introduction to Digital Media **(1 credit each)**

ART 3430 - Typography and Publication Design **Credits: (3)**

ART 2430 - Introduction to Graphic Design **Credits: (3)**

COMM 3400 - Introduction to Public Relations **Credits: (3)**

COMM 3440 - Public Relations Writing **Credits: (3)**

COMM 3730 - Media Programming and Audiences **Credits: (3)**

COMM 3740 - Writing for Screen and Television **Credits: (3)**

ENGL 3100 - Professional and Technical Writing **Credits: (3)**

ENGL 3210 - Advanced College Writing **Credits: (3)**

ENGL 3270 - Magazine Article Writing **Credits: (3)**

ENGL 3280 - Biographical Writing **Credits: (3)**

GEOG 3300 - Historical Geography of the United States **Credits: (3)**

GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**

GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**

GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**

POLS 3700 - Bureaucratic Politics **Credits: (3)**

POLS 3750 - Urban Government and Politics **Credits: (3)**

## History Teaching Minor

*History Teaching minors must meet the Teacher Education admission and licensure requirements (see Teacher Education Department). You cannot declare a teaching minor without also having a Teaching major.*

**Grade Requirements:** A grade of "C" or better in courses applied toward the minor (a grade of "C-" is not acceptable) in addition to an overall GPA for these courses of 2.50 or higher.

**Credit Hour Requirements:** Minimum of 24 credit hours in History courses.

## Course Requirements for Teaching Minor

History Courses Required (12 credit hours)

HIST 1500 SS - World History to 1500 C.E. **Credits: (3)**

HIST 1510 SS/DV - World History from 1500 C.E. to the Present **Credits: (3)**

HIST 2700 - History of the United States to 1877 **Credits: (3)**

HIST 2710 - History of the United States since 1877 **Credits: (3)**

Note:

In addition, please note that HIST 4500 is required for completion of the Secondary Education Licensure program.

### Upper-Division Electives (12 credit hours)

*Select at least 12 credit hours from the upper-division History courses, including one course from each of the upper division areas. These courses are listed under the History Program.*

*Teaching minors must select either HIST 4110, HIST 4120 or HIST 4130 as part of their 12 credit hours.*

## History Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Political Science and Philosophy

**Department Chair:** Thomas Kuehls

**Location:** Social Science Building, Room 280

**Telephone Contact:** Sarah Anderson 801-626-6694

**Professors:** Robert Fudge, Richard Greene, Gary Johnson, Thomas Kuehls, Leah Murray, T. R. Reddy **Associate**

**Professor:** Mary Beth Willard; **Assistant Professors:** Richard Price, Stephanie Wolfe

### Political Science

Political Science, in the broadest sense, is the study of politics particularly as it relates to governments and people. Political scientists study governments: The origins and preconditions for governments, the growth and evolution of governments, and the decline and conflict among governments. Political scientists also are interested in how governments are structured, how governments make decisions, the policies that result from political decisions and the consequences of these policies, and how governments manage societal and international conflicts. Political scientists also study people: Their values and positions on issues, their preferences among candidates, their support for public officials, and their appraisals of their government. True to their oldest academic traditions, political scientists retain their concern with the fundamental questions of how governments ought to be constituted, and how they can best serve their citizens.

The study of political science has value in several different ways. First, it contributes to a solid liberal arts education and preparation for citizenship. The Greek word "idiot" was used to refer to one who took no interest in the affairs of state. Today, no less than twenty centuries later, it is incumbent upon all useful citizens to learn something about the political system in which they will spend their lives. Educated people ought to know something of the nature of government even if they have no professional interest in political science.

Second, a degree in political science furnishes an excellent background for graduate study in political science, law, administration, business, and international relations. Political science helps students develop reasoning and analytical skills and build competence in oral and written expression. In addition, the department of political science requires students to acquire basic skills in statistical analysis and computer competency.

Third, there are some careers for which an extensive training in political science can be most useful. This is true especially for those planning to seek careers in higher education, the legal profession, state and local government, urban planning, the federal bureaucracy, journalism, the military, law enforcement, teaching, the civil service, or in any of the proliferating organizations that seek to monitor the political processes to influence content of public policy. Further, the training students receive in political science will be useful to students no matter what their ultimate career choices. The comprehensive career guide, *Careers and the study of Political Science*, is available from the department chair.

### **Internships**

Internships are offered through the Political Science program and the Walker Institute of Politics and Public Service to provide students practical understanding of political processes in governmental organizations. Many students have received practical training and gained valuable knowledge by working with United States senators, members of Congress, and Utah State senators and representatives. Moreover, some students work as interns in City and County administrations and in the Utah Legal Services office in Ogden.

### **Pre-Law**

The pre-law advisement program is designed to assist students in scheduling courses, in preparing for the law school admissions test, and in obtaining admission at one of the nationally recognized law schools. Data on the placement of graduates in law schools show the success and the immense value of the program to students. (Dr. Richard Price acts as the Pre-Law Advisor.)

### **Interdisciplinary Minors**

The Political Science Department participates in the Asian Studies, Environmental Studies, European Studies, International Politics, Latin American Studies, Legal Studies, and Public Administration Minor Programs and the Urban and Regional Planning Emphasis Program. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

### **Philosophy**

The philosophy program offers courses that fall under three general categories: 1) Liberal Education: teaches the ideas of influential past and contemporary thinkers who have sought to understand the world and our experience of it. These ideas concern such topics as the nature of truth and reality, the limits of knowledge, standards of right and wrong, the experience of beauty, and world religions. 2) Methodology: emphasizes methods of sound practical reasoning, deductive logic, and language analysis. 3) Application: critically analyzes non-philosophical disciplines. For example, the philosophy of democracy analyzes the value assumptions behind democratic forms of government, while medical ethics seeks to identify and resolve dilemmas arising from conflicts between medical technology and the quality of life.

## **Philosophy (BA)**

**Program Prerequisite:** Not required.

**Minor:** Required

**Grade Requirements:** A grade of "C" or better in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 upper division credit hours are required (courses numbered 3000 and above). Philosophy majors are required to take 36 credit hours within the major, of which at least 27 must be upper division.

## Advisement

All Philosophy students are required to meet with a faculty advisor at least annually for course and program advisement. Call 801-626-6694 for more information or to schedule an appointment.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements.

## Core and General Education

Refer to Degree Requirements for Bachelor of Arts requirements. See Language Courses Required to fulfill the BA listed under the major course requirements. One of the following courses may be used to fulfill both general education (humanities) and program requirements: PHIL 1000, PHIL 1250, PHIL 1120.

Students majoring or minoring in Philosophy who transfer from another institution and who intend to graduate from WSU will be required to take, in the case of the minor, at least one class in PHIL, and in the case of the major, at least two classes in PHIL, including Senior Capstone Seminar.

## Major Course Requirements for BA Degree

### Core Courses Required (9 credit hours)

PHIL 1000 HU - Introduction to Philosophy **Credits: (3)**

PHIL 1250 HU - Critical Thinking **Credits: (3)** or  
PHIL 2200 - Deductive Logic **Credits: (3)**

PHIL 4900 - Senior Capstone Seminar **Credits: (3)**

### Electives (27 credit hours minimum)

*Select a minimum of 27 credit hours from the following list, of which at least 24 must be upper division, including one of either PHIL 3010 or PHIL 3020, one of either PHIL 3650 or PHIL 4600, and one of either PHIL 4510 or PHIL 4520.*

PHIL 1120 HU - Contemporary Moral Problems **Credits: (3)**

PHIL 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

PHIL 3010 - History of Philosophy: Classical & Medieval **Credits: (3)**

PHIL 3020 - History of Philosophy: Modern **Credits: (3)**

PHIL 3150 - Existentialism **Credits: (3)**

PHIL 3200 - Philosophy of Democracy **Credits: (3)**

PHIL 3250 - Philosophy of Law **Credits: (3)**

PHIL 3350 - Medical Ethics **Credits: (3)**

PHIL 3500 - Philosophy of Western Religion **Credits: (3)**

PHIL 3550 - Philosophy of Eastern Religion **Credits: (3)**

PHIL 3650 - Aesthetics **Credits: (3)**

PHIL 4400 - Great Issues in Philosophy **Credits: (3)**

PHIL 4450 - Great Thinkers of Philosophy **Credits: (3)**

PHIL 4510 - Metaphysics **Credits: (3)**

PHIL 4520 - Epistemology **Credits: (3)**

PHIL 4530 - Philosophy of Mind **Credits: (3)**

PHIL 4540 - Philosophy of Language **Credits: (3)**

PHIL 4600 - Ethical Theory **Credits: (3)**

PHIL 4810 - Experimental **Credits: (1-6)**

PHIL 4830 - Directed Readings **Credits: (1-2)**

PHIL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

## Language Courses Required to fulfill the BA

Students completing a BA in philosophy must complete 6 hours of foreign language courses (these can be taken in more than one language) or demonstrate equivalent competency. Students must also complete 6 hours of language arts, which are automatically satisfied by completing the philosophy course requirements.

## Political Science (BA)

**Program Prerequisite:** Not required for Political Science major. Political Science Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education). Teaching Majors are also required to take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 semester hours including HIST 4500.

**Minor:** A minor or a double major is required.

**Grade Requirements:** Political Science majors must have an overall GPA of 2.00 and a "C" or better grade in courses used toward the major (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 upper division credit hours are required (courses numbered 3000 and above). Political Science majors are required to take 39 credit hours within the major; teaching majors must also take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 credit hours.

### Advisement

All Political Science and Political Science Teaching students are required to meet with Dr. Thom Kuehls, the Political Science faculty advisor, at least annually for course and program advisement. Call 801-626-6698 or email Dr. Kuehls at tkuehls@weber.edu for more information or to schedule an appointment. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

### Admission Requirements

To declare your program of study, please contact Debbie Strait in the Political Science Department office at 801-626-6694 (see Enrollment Services and Information). There are no special admission or application requirements for the Political Science major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

### General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. Five Political Science courses can fulfill both general education and Political Science major or minor requirements: POLS 1100 fulfills the American Institutions requirement; POLS 2100, POLS 2200, POLS 2300, and POLS 2400 are all Social Science General Education courses, but students may only count one of these three courses towards the Social Science General Education requirement. Consult with a department advisor for specific general education guidelines. Political Science majors are encouraged to take MATH 1040 (Statistics) to fulfill their Quantitative Literacy Requirement and LIBS 2804 to fulfill Part D of their Computer and Information Literacy requirement.

*Students who transfer from another institution and who intend to graduate from WSU with a minor in Political Science or a Political Science Teaching minor will be required to take at least two classes in Political Science at WSU. Students who transfer from another institution and who intend to graduate from WSU with a major in Political Science or a*

*Political Science Teaching major will be required to take at least three classes in POLS, plus POLS 4990 Senior Seminar at WSU. These classes must be taken during the calendar year immediately preceding graduation.*

*AP credit for high school American Government courses will be accepted for Political Science POLS 1100 . It will count toward the total hours required for graduation and count toward the total of 39 credit hours required for a Political Science major. A score of "4" or above is required.*

## **Political Science Major Course Requirements for BA**

### **Language Courses Required to fulfill the BA (12 credit hours)**

Majors obtaining a Bachelor of Arts in Political Science must take either a minimum of twelve hours of foreign language, or six hours of foreign language and six hours of language arts coursework that are primarily intended to develop a student's ability to communicate ideas and concepts with others. The six hours of language arts coursework shall be met by taking any two of the following courses:

- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**
- POLS 4190 - Theories of International Politics **Credits: (3)**
- POLS 4360 - Classical Political Thought **Credits: (3)**
- POLS 4380 - Modern Political Thought **Credits: (3)**
- WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- PHIL 3020 - History of Philosophy: Modern **Credits: (3)**
- PHIL 3200 - Philosophy of Democracy **Credits: (3)**

Note:

*Any of the Political Science courses taken to meet the BA requirements may also be used to meet the appropriate Political Science requirements listed below. Also, any of the above courses may have pre-requisites not listed here that will need to be met.*

### **Core Courses Required for BA (15 credit hours)**

- POLS 1010 - Introduction to Political Science **Credits: (3)**
- POLS 4990 - Senior Seminar/Senior Thesis **Credits: (3)** Fall Only. POLS 1010 is a prerequisite for POLS 4990.

And three of the following lower division area courses:

- POLS 1100 AI - American National Government **Credits: (3)**
- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**
- POLS 2700 - Introduction to Public Administration **Credits: (3)**

## **Political Science Additional Upper Division Major Course Requirements for BA (18 Credits)**

*Take at least three courses in one of the following areas, at least two courses in a second area, and at least one course in the final area.*

## Area 1: American Government

POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**  
POLS 3600 - Political Parties **Credits: (3)**  
POLS 3610 - Campaigns and Elections **Credits: (3)**  
POLS 3620 - Political Behavior **Credits: (3)**  
POLS 3630 - Identity Politics **Credits: (3)**  
POLS 3700 - Bureaucratic Politics **Credits: (3)**  
POLS 3750 - Urban Government and Politics **Credits: (3)**  
POLS 3760 - State Government and Politics **Credits: (3)**  
POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**  
POLS 4020 - American Constitutional Law I **Credits: (3)**  
POLS 4030 - American Constitutional Law II **Credits: (3)**

POLS 4060 - Law and Society **Credits: (3)** or  
CJ 4065 - Law and Society **Credits: (3)**

POLS 4100 - Free Speech in Law and Politics **Credits: (3)**  
POLS 4600 - American Congress **Credits: (3)**  
POLS 4620 - The U.S. Supreme Court **Credits: (3)**  
POLS 4640 - American Presidency **Credits: (3)**  
POLS 4750 - Public Policy Analysis **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

## Area 2: Global Politics

POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**

POLS 3210 - Politics and Governments of Europe **Credits: (3)**  
POLS 3220 - Politics and Governments of Asia **Credits: (3)**  
POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**  
POLS 4160 - Topics in World Politics **Credits: (3)**  
POLS 4180 - International Law and Organization **Credits: (3)**  
POLS 4190 - Theories of International Politics **Credits: (3)**  
POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**

## Area 3: Political Theory

POLS 3330 - American Political Thought **Credits: (3)**  
POLS 3340 - Environmental Political Theory **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)** \*  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

***\*Counts in this area when the topic is in Political Theory***

## Other Elective Courses

*Take any of the following as needed for additional credit hour total, or select additional courses from the courses in the three areas above.*

POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4830 - Directed Readings **Credits: (1-2)**

Note:

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

## Political Science Teaching (BA)

**Program Prerequisite:** Political Science Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education). Teaching Majors are also required to take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 semester hours including HIST 4500.

**Minor:** A minor or a double major is required.

**Grade Requirements:** Political Science majors must have an overall GPA of 2.00 and a "C" or better grade in courses used toward the major (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 upper division credit hours are required (courses numbered 3000 and above). Political Science majors are required to take 39 credit hours within the major; teaching majors must also take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 credit hours.

### Advisement

All Political Science and Political Science Teaching students are required to meet with Dr. Thom Kuehls, the Political Science faculty advisor, at least annually for course and program advisement. Call 801-626-6698 or email Dr. Kuehls at tkuehls@weber.edu for more information or to schedule an appointment. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

### Admission Requirements

To declare your program of study, please contact Debbie Strait in the Political Science Department office at 801-626-6694 (see Enrollment Services and Information). There are no special admission or application requirements for the Political Science major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. Five Political Science courses can fulfill both general education and Political Science major or minor requirements: POLS 1100 fulfills the American Institutions requirement; POLS 2100, POLS 2200, POLS 2300, and POLS 2400 are all Social Science General Education courses, but students may only count one of these three courses towards the Social Science General Education requirements. Consult with a department advisor for specific general education guidelines. Political Science majors are encouraged to take MATH 1040 (Statistics) to fulfill their Quantitative Literacy Requirement and LIBS 2804 to fulfill Part D of their Computer and Information Literacy requirement.

*Students who transfer from another institution and who intend to graduate from WSU with a minor in Political Science or a Political Science Teaching minor will be required to take at least two classes in Political Science at WSU. Students who transfer from another institution and who intend to graduate from WSU with a major in Political Science or a Political Science Teaching major will be required to take at least three classes in POLS, plus POLS 4990 Senior Seminar at WSU. These classes must be taken during the calendar year immediately preceding graduation.*

*AP credit for high school American Government courses will be accepted for Political Science POLS 1100. It will count toward the total hours required for graduation and count toward the total of 39 credit hours required for a Political Science major. A score of "4" or above is required.*

## Political Science Major Course Requirements for Teaching BA

### Language Courses Required to fulfill the BA (12 credit hours)

Majors obtaining a Bachelor of Arts in Political Science must take either a minimum of twelve hours of foreign language, or six hours of foreign language and six hours of language arts coursework that are primarily intended to develop a student's ability to communicate ideas and concepts with others. The six hours of language arts coursework shall be met by taking any two of the following courses:

- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**
- POLS 4190 - Theories of International Politics **Credits: (3)**
- POLS 4360 - Classical Political Thought **Credits: (3)**
- POLS 4380 - Modern Political Thought **Credits: (3)**
- WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**
- ENGL 3210 - Advanced College Writing **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- PHIL 3020 - History of Philosophy: Modern **Credits: (3)**
- PHIL 3200 - Philosophy of Democracy **Credits: (3)**

Note:

*Any of the Political Science courses taken to meet the BA requirements may also be used to meet the appropriate Political Science requirements listed below. Also, any of the above courses may have pre-requisites not listed here that will need to be met.*

### Core Courses Required for Teaching BA (18 credit hours)

- POLS 1010 - Introduction to Political Science **Credits: (3)**
- POLS 4990 - Senior Seminar/Senior Thesis **Credits: (3)** Fall Only. POLS 1010 is a prerequisite for POLS 4990
- HIST 4500 - Teaching Social Studies in Grades 5-12 **Credits: (3)**

And three of the following lower division area courses:

- POLS 1100 AI - American National Government **Credits: (3)**
- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**
- POLS 2700 - Introduction to Public Administration **Credits: (3)**

### Political Science Additional Upper Division Major Course Requirements for Teaching BA (18 credits)

*Take at least three courses in one of the following areas, at least two courses in a second area, and at least one course in the final area.*

#### Area 1: American Government

- POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**
- POLS 3600 - Political Parties **Credits: (3)**
- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 3620 - Political Behavior **Credits: (3)**
- POLS 3630 - Identity Politics **Credits: (3)**
- POLS 3700 - Bureaucratic Politics **Credits: (3)**
- POLS 3750 - Urban Government and Politics **Credits: (3)**
- POLS 3760 - State Government and Politics **Credits: (3)**
- POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**
  
- POLS 4060 - Law and Society **Credits: (3)** or  
CJ 4065 - Law and Society **Credits: (3)**
  
- POLS 4100 - Free Speech in Law and Politics **Credits: (3)**
- POLS 4600 - American Congress **Credits: (3)**
- POLS 4620 - The U.S. Supreme Court **Credits: (3)**
- POLS 4640 - American Presidency **Credits: (3)**
- POLS 4750 - Public Policy Analysis **Credits: (3)**
- POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

#### Area 2: Global Politics

- POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**
  
- POLS 3210 - Politics and Governments of Europe **Credits: (3)**
- POLS 3220 - Politics and Governments of Asia **Credits: (3)**
- POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**
- POLS 4160 - Topics in World Politics **Credits: (3)**
- POLS 4180 - International Law and Organization **Credits: (3)**
- POLS 4190 - Theories of International Politics **Credits: (3)**
- POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**
- POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**

#### Area 3: Political Theory

- POLS 3330 - American Political Thought **Credits: (3)**

POLS 3340 - Environmental Political Theory **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3) \***  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

***\*Counts in this area when the topic is in Political Theory***

Other Elective Courses

*Take any of the following as needed for additional credit hour total, or select additional courses from the courses in the three areas above.*

POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4830 - Directed Readings **Credits: (1-2)**

Note:

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

## Political Science (BS)

**Program Prerequisite:** Not required for Political Science major. Political Science Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education). Teaching Majors are also required to take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 semester hours including HIST 4500.

**Minor:** A minor or a double major is required.

**Grade Requirements:** Political Science majors must have an overall GPA of 2.00 and a "C" or better grade in courses used toward the major (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 upper division credit hours are required (courses numbered 3000 and above). Political Science majors are required to take 39 credit hours within the major; teaching majors must also take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 credit hours.

## Advisement

All Political Science and Political Science Teaching students are required to meet with Dr. Thom Kuehls, the Political Science faculty advisor, at least annually for course and program advisement. Call 801-626-6698 or email Dr. Kuehls at tkuehls@weber.edu for more information or to schedule an appointment. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

## Admission Requirements

To declare your program of study, please contact Debbie Strait in the Political Science Department office at 801-626-6694 (see Enrollment Services and Information). There are no special admission or application requirements for the Political Science major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. Four Political Science courses can fulfill both general education and Political Science major or minor requirements: POLS 1100 fulfills the American Institutions requirement; POLS 2100, POLS 2200, and POLS 2300 are all Social Science General Education courses, but students may only count one of these three courses towards the Social Science General Education requirement. Consult with a department advisor for specific general education guidelines. Political Science majors are encouraged to take MATH 1040 (Statistics) to fulfill their Quantitative Literacy Requirement and LIBS 2804 to fulfill Part D of their Computer and Information Literacy requirement.

*Students who transfer from another institution and who intend to graduate from WSU with a minor in Political Science or a Political Science Teaching minor will be required to take at least two classes in Political Science at WSU. Students who transfer from another institution and who intend to graduate from WSU with a major in Political Science or a Political Science Teaching major will be required to take at least three classes in POLS, plus POLS 4990 Senior Seminar at WSU. These classes must be taken during the calendar year immediately preceding graduation.*

*AP credit for high school American Government courses will be accepted for Political Science POLS 1100. It will count toward the total hours required for graduation and count toward the total of 39 credit hours required for a Political Science major. A score of "4" or above is required.*

## Political Science Major Course Requirements for BS

Majors obtaining a Bachelor of Science in Political Science must take a minimum of twelve hours of coursework that emphasizes analysis of data, application of evidence based investigation, formulation and testing of predictive models, or address quantitative methods at a level that requires quantitative literacy. Three of these twelve hours will be met by taking POLS 3990, a core requirement for Political Science majors seeking a Bachelor of Science. The other nine hours must come from the following list of courses:

- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 3620 - Political Behavior **Credits: (3)**
- POLS 4750 - Public Policy Analysis **Credits: (3)**
- SOC 3600 - Social Statistics **Credits: (3)**
- ANTH 4300 - Anthropological Research Methods **Credits: (3)**
- GEOG 3060 - World Environmental Issues **Credits: (3)**
- GEOG 3600 - Quantitative Methods in Geography **Credits: (3)**
- GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- PSY 3600 - Statistics in Psychology **Credits: (3)**
- PSY 4760 - Tests and Measurements **Credits: (3)**

SW 3600 - Social Statistics **Credits: (3)**

Note:

*Any of the Political Science courses taken to meet the BS requirements may also be used to meet the appropriate Political Science requirements listed below. Also, any of the above courses may have pre-requisites not listed here that will need to be met.*

### Core Courses Required for BS (18 credit hours)

POLS 1010 - Introduction to Political Science **Credits: (3)**

POLS 3990 - Political Analysis **Credits: (3)**

POLS 4990 - Senior Seminar/Senior Thesis **Credits: (3)** Fall Only. *POLS 1010 is a prerequisite for POLS 4990*

And three of the following lower division area courses:

POLS 1100 AI - American National Government **Credits: (3)**

POLS 2100 SS - Introduction to International Politics **Credits: (3)**

POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**

POLS 2300 SS - Introduction to Political Theory **Credits: (3)**

POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**

POLS 2700 - Introduction to Public Administration **Credits: (3)**

### Additional Upper Division Major Course Requirements (18 credit hours)

*See Additional Upper Division Major Course Requirements below*

## **Political Science Additional Upper Division Major Course Requirements for BS**

*Take at least three courses in one of the following areas, at least two courses in a second area, and at least one course in the final area.*

### Area 1: American Government

POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**

POLS 3600 - Political Parties **Credits: (3)**

POLS 3610 - Campaigns and Elections **Credits: (3)**

POLS 3620 - Political Behavior **Credits: (3)**

POLS 3630 - Identity Politics **Credits: (3)**

POLS 3700 - Bureaucratic Politics **Credits: (3)**

POLS 3750 - Urban Government and Politics **Credits: (3)**

POLS 3760 - State Government and Politics **Credits: (3)**

POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**

POLS 4020 - American Constitutional Law I **Credits: (3)**

POLS 4030 - American Constitutional Law II **Credits: (3)**

POLS 4060 - Law and Society **Credits: (3)** or

CJ 4065 - Law and Society **Credits: (3)**

POLS 4100 - Free Speech in Law and Politics **Credits: (3)**

POLS 4600 - American Congress **Credits: (3)**

POLS 4620 - The U.S. Supreme Court **Credits: (3)**

POLS 4640 - American Presidency **Credits: (3)**

POLS 4750 - Public Policy Analysis **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

## Area 2: Global Politics

POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**

POLS 3210 - Politics and Governments of Europe **Credits: (3)**  
POLS 3220 - Politics and Governments of Asia **Credits: (3)**  
POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**  
POLS 4160 - Topics in World Politics **Credits: (3)**  
POLS 4180 - International Law and Organization **Credits: (3)**  
POLS 4190 - Theories of International Politics **Credits: (3)**  
POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**  
POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**

## Area 3: Political Theory

POLS 3330 - American Political Thought **Credits: (3)**  
POLS 3340 - Environmental Political Theory **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)** \*  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

***\*Counts in this area when the topic is in Political Theory***

## Other Elective Courses

*Take any of the following as needed for additional credit hour total, or select additional courses from the courses in the three areas above.*

POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4830 - Directed Readings **Credits: (1-2)**

Note:

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the*

*political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

## Political Science Teaching (BS)

**Program Prerequisite:** Political Science Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education). Teaching Majors are also required to take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 semester hours including HIST 4500.

**Minor:** A minor or a double major is required.

**Grade Requirements:** Political Science majors must have an overall GPA of 2.00 and a "C" or better grade in courses used toward the major (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; 40 upper division credit hours are required (courses numbered 3000 and above). Political Science majors are required to take 39 credit hours within the major; teaching majors must also take HIST 4500 - Teaching Social Studies in Grades 5-12, for a total of 42 credit hours.

### Advisement

All Political Science and Political Science Teaching students are required to meet with Dr. Thom Kuehls, the Political Science faculty advisor, at least annually for course and program advisement. Call 801-626-6698 or email Dr. Kuehls at tkuehls@weber.edu for more information or to schedule an appointment. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

### Admission Requirements

To declare your program of study, please contact Debbie Strait in the Political Science Department office at 801-626-6694 (see Enrollment Services and Information). There are no special admission or application requirements for the Political Science major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

### General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. Five Political Science courses can fulfill both general education and Political Science major or minor requirements: POLS 1100 fulfills the American Institutions requirement; POLS 2100, POLS 2200, POLS 2300, and POLS 2400 are all Social Science General Education courses, but students may only count one of these three courses towards the Social Science General Education requirements. Consult with a department advisor for specific general education guidelines. Political Science majors are encouraged to take MATH 1040 (Statistics) to fulfill their Quantitative Literacy Requirement and LIBS 2804 to fulfill Part D of their Computer and Information Literacy requirement.

*Students who transfer from another institution and who intend to graduate from WSU with a minor in Political Science or a Political Science Teaching minor will be required to take at least two classes in Political Science at WSU. Students who transfer from another institution and who intend to graduate from WSU with a major in Political Science or a Political Science Teaching major will be required to take at least three classes in POLS, plus POLS 4990 Senior Seminar at WSU. These classes must be taken during the calendar year immediately preceding graduation.*

*AP credit for high school American Government courses will be accepted for Political Science POLS 1100. It will count toward the total hours required for graduation and count toward the total of 39 credit hours required for a Political Science major. A score of "4" or above is required.*

## Political Science Major Course Requirements for BS

Majors obtaining a Bachelor of Science in Political Science must take a minimum of twelve hours of coursework that emphasizes analysis of data, application of evidence based investigation, formulation and testing of predictive models, or address quantitative methods at a level that requires quantitative literacy. Three of these twelve hours will be met by taking POLS 3990, a core requirement for Political Science majors seeking a Bachelor of Science. The other nine hours must come from the following list of courses:

- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 3620 - Political Behavior **Credits: (3)**
- POLS 4750 - Public Policy Analysis **Credits: (3)**
- SOC 3600 - Social Statistics **Credits: (3)**
- ANTH 4300 - Anthropological Research Methods **Credits: (3)**
- GEOG 3060 - World Environmental Issues **Credits: (3)**
- GEOG 3600 - Quantitative Methods in Geography **Credits: (3)**
- GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**
- ECON 3120 - International Finance and Monetary Systems **Credits: (3)**
- ECON 4170 - Economic Development **Credits: (3)**
- ECON 4520 - Public Finance **Credits: (3)**
- PSY 3600 - Statistics in Psychology **Credits: (3)**
- PSY 4760 - Tests and Measurements **Credits: (3)**
- SW 3600 - Social Statistics **Credits: (3)**

### Note:

*Any of the Political Science courses taken to meet the BS requirements may also be used to meet the appropriate Political Science requirements listed below. Also, any of the above courses may have pre-requisites not listed here that will need to be met.*

### Core Courses Required for Teaching BS (21 credit hours)

- POLS 1010 - Introduction to Political Science **Credits: (3)**
- POLS 3990 - Political Analysis **Credits: (3)**
- POLS 4990 - Senior Seminar/Senior Thesis **Credits: (3)** Fall Only. POLS 1010 is a prerequisite for POLS 4990.
- HIST 4500 - Teaching Social Studies in Grades 5-12 **Credits: (3)**

And three of the following lower division area courses:

- POLS 1100 AI - American National Government **Credits: (3)**
- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**
- POLS 2700 - Introduction to Public Administration **Credits: (3)**

### Additional Upper Division Major Course Requirements (18 credit hours)

*See Additional Upper Division Major Course Requirements below*

### Political Science Additional Upper Division Major Course Requirements for BS

*Take at least three courses in one of the following areas, at least two courses in a second area, and at least one course in the final area.*

Area 1: American Government

POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**  
POLS 3600 - Political Parties **Credits: (3)**  
POLS 3610 - Campaigns and Elections **Credits: (3)**  
POLS 3620 - Political Behavior **Credits: (3)**  
POLS 3630 - Identity Politics **Credits: (3)**  
POLS 3700 - Bureaucratic Politics **Credits: (3)**  
POLS 3750 - Urban Government and Politics **Credits: (3)**  
POLS 3760 - State Government and Politics **Credits: (3)**  
POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**  
POLS 4020 - American Constitutional Law I **Credits: (3)**  
POLS 4030 - American Constitutional Law II **Credits: (3)**

POLS 4060 - Law and Society **Credits: (3)** or  
CJ 4065 - Law and Society **Credits: (3)**

POLS 4100 - Free Speech in Law and Politics **Credits: (3)**  
POLS 4600 - American Congress **Credits: (3)**  
POLS 4620 - The U.S. Supreme Court **Credits: (3)**  
POLS 4640 - American Presidency **Credits: (3)**  
POLS 4750 - Public Policy Analysis **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

Area 2: Global Politics

POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**

POLS 3210 - Politics and Governments of Europe **Credits: (3)**  
POLS 3220 - Politics and Governments of Asia **Credits: (3)**  
POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**  
POLS 4160 - Topics in World Politics **Credits: (3)**  
POLS 4180 - International Law and Organization **Credits: (3)**  
POLS 4190 - Theories of International Politics **Credits: (3)**  
POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**

Area 3: Political Theory

POLS 3330 - American Political Thought **Credits: (3)**  
POLS 3340 - Environmental Political Theory **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3) \***  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

***\*Counts in this area when the topic is in Political Theory***

Other Elective Courses

*Take any of the following as needed for additional credit hour total, or select additional courses from the courses in the three areas above.*

POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4830 - Directed Readings **Credits: (1-2)**

Note:

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

## Political Science (BIS)

### Political Science Minor/ Teaching Minor/ BIS

**Grade Requirements:** An overall GPA of 2.00 or higher is required and a grade of "C" or better in all Political Science courses used toward the minor/BIS (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 21 credit hours for Political Science minor/BIS and a minimum of 24 credit hours for the teaching minor, which includes HIST 4500 - Teaching Social Studies in Grades 5-12, a required course for Political Science Teaching Minors.

*Students who select the Political Science Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

### Course Requirements

Political Science Courses Required (6 credit hours)

*Select two of the following courses*

POLS 1100 AI - American National Government **Credits: (3)**  
POLS 2100 SS - Introduction to International Politics **Credits: (3)**  
POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**  
POLS 2300 SS - Introduction to Political Theory **Credits: (3)**  
POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**  
POLS 2700 - Introduction to Public Administration **Credits: (3)**

Elective Requirements (15 credit hours)

*Select at least four courses from the following upper division electives.*

POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**

POLS 3210 - Politics and Governments of Europe **Credits: (3)**  
POLS 3220 - Politics and Governments of Asia **Credits: (3)**  
POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**  
POLS 3330 - American Political Thought **Credits: (3)**  
POLS 3340 - Environmental Political Theory **Credits: (3)**  
POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**  
POLS 3600 - Political Parties **Credits: (3)**  
POLS 3610 - Campaigns and Elections **Credits: (3)**  
POLS 3620 - Political Behavior **Credits: (3)**  
POLS 3630 - Identity Politics **Credits: (3)**  
POLS 3700 - Bureaucratic Politics **Credits: (3)**  
POLS 3750 - Urban Government and Politics **Credits: (3)**  
POLS 3760 - State Government and Politics **Credits: (3)**  
POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**  
POLS 4020 - American Constitutional Law I **Credits: (3)**  
POLS 4030 - American Constitutional Law II **Credits: (3)**

POLS 4060 - Law and Society **Credits: (3)** or  
CJ 4065 - Law and Society **Credits: (3)**

POLS 4100 - Free Speech in Law and Politics **Credits: (3)**  
POLS 4160 - Topics in World Politics **Credits: (3)**  
POLS 4180 - International Law and Organization **Credits: (3)**  
POLS 4190 - Theories of International Politics **Credits: (3)**  
POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4600 - American Congress **Credits: (3)**  
POLS 4620 - The U.S. Supreme Court **Credits: (3)**  
POLS 4640 - American Presidency **Credits: (3)**  
POLS 4750 - Public Policy Analysis **Credits: (3)**  
POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

Additional Electives

*These courses may be used to complete the credit requirements.*

POLS 1010 - Introduction to Political Science **Credits: (3)**  
POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**

POLS 4830 - Directed Readings **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

Note:

*Students may count up to 3 hours of POLS 4830, 3 hours of POLS 4800, and 3 hours of POLS 4860 toward the total of 21 hours required for the minor, if needed.*

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

## International Politics Minor

**Contact:** Dr. Stephanie Wolfe  
**Office:** SS 296  
**Website:** [stephaniewolfe@weber.edu](mailto:stephaniewolfe@weber.edu)  
**Phone:** 801-626-6696

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 24 credit hours required.

*Students may not major in Political Science and Minor in International Politics.*

## Course Requirements for Minor

Required Core Courses (9 credit hours)

POLS 2100 SS - Introduction to International Politics **Credits: (3)**  
POLS 3140 - Foreign Policy of the United States **Credits: (3)**  
POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**

Elective Courses (6 credit hours required)

POLS 3210 - Politics and Governments of Europe **Credits: (3)**  
POLS 3220 - Politics and Governments of Asia **Credits: (3)**  
POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**  
POLS 4160 - Topics in World Politics **Credits: (3)**  
POLS 4180 - International Law and Organization **Credits: (3)**  
POLS 4190 - Theories of International Politics **Credits: (3)**

## Interdisciplinary Electives (9 credit hours required)

*Select 9 credit hours with no more than 3 credit hours from each prefix.*

ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)** or  
GEOG 1300 SS/DV - Places and Peoples of the World **Credits: (3)**

CJ 4700 - International Criminal Justice **Credits: (3)**  
ECON 3110 - International Trade **Credits: (3)**  
ECON 3120 - International Finance and Monetary Systems **Credits: (3)**  
FL 2020 HU - Fourth Semester **Credits: (3)**

FL 3550 - Cultural Heritage I **Credits: (3)** or  
FL 3560 - Cultural Heritage II **Credits: (3)** or  
FL 3570 - Special Topics in Culture **Credits: (3)**

FL 3710 - Business Language I **Credits: (3)**

FL 3850 - Study Abroad **Credits: (1-6)** or  
FL 4850 - Study Abroad **Credits: (1-6)**

GEOG 3060 - World Environmental Issues **Credits: (3)**  
GEOG 3360 - Economic Geography **Credits: (3)**  
GEOG 3540 - Geography of Latin America **Credits: (3)**  
GEOG 3590 - Geography of Europe **Credits: (3)**  
GEOG 3620 - Geography of Russia and the Former USSR **Credits: (3)**  
GEOG 3640 - Geography of Asia **Credits: (3)**  
GEOG 3660 - Geography of China and Japan **Credits: (3)**  
GEOG 3740 - Geography of Africa **Credits: (3)**  
HIST 4450 - History of Modern Eastern Europe since 1815 **Credits: (3)**  
HIST 4510 - Twentieth Century World **Credits: (3)**  
HIST 4530 - Far Eastern History **Credits: (3)**  
HIST 4550 - Southeast Asian History **Credits: (3)**  
HIST 4590 - Middle Eastern History **Credits: (3)**  
HIST 4610 - History of Africa **Credits: (3)**  
HIST 4650 - Modern Latin America **Credits: (3)**  
SOC 4410 - Sociology of Globalization **Credits: (3)**

## See also:

Legal Studies Minor

# Philosophy Minor

**Grade Requirements:** A grade of “C” or better in courses used toward the minor (a grade of “C-” is not acceptable).

**Credit Hour Requirements:** Minimum of 21 credit hours.

## Course Requirements for Minor

Philosophy Courses Required (6 credit hours).

PHIL 1000 HU - Introduction to Philosophy **Credits: (3)**

PHIL 1250 HU - Critical Thinking **Credits: (3)** or  
PHIL 2200 - Deductive Logic **Credits: (3)**

Philosophy Electives (minimum 15 credit hours)

*Select a minimum of 15 credit hours from the following, of which at least 12 must be upper division, including one of either PHIL 3010 or PHIL 3020.*

PHIL 1120 HU - Contemporary Moral Problems **Credits: (3)**

PHIL 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

PHIL 3010 - History of Philosophy: Classical & Medieval **Credits: (3)**

PHIL 3020 - History of Philosophy: Modern **Credits: (3)**

PHIL 3150 - Existentialism **Credits: (3)**

PHIL 3200 - Philosophy of Democracy **Credits: (3)**

PHIL 3250 - Philosophy of Law **Credits: (3)**

PHIL 3350 - Medical Ethics **Credits: (3)**

PHIL 3500 - Philosophy of Western Religion **Credits: (3)**

PHIL 3550 - Philosophy of Eastern Religion **Credits: (3)**

PHIL 3650 - Aesthetics **Credits: (3)**

PHIL 4400 - Great Issues in Philosophy **Credits: (3)**

PHIL 4450 - Great Thinkers of Philosophy **Credits: (3)**

PHIL 4510 - Metaphysics **Credits: (3)**

PHIL 4520 - Epistemology **Credits: (3)**

PHIL 4530 - Philosophy of Mind **Credits: (3)**

PHIL 4540 - Philosophy of Language **Credits: (3)**

PHIL 4600 - Ethical Theory **Credits: (3)**

PHIL 4810 - Experimental **Credits: (1-6)**

PHIL 4830 - Directed Readings **Credits: (1-2)**

PHIL 4900 - Senior Capstone Seminar **Credits: (3)**

PHIL 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

# Political Science Minor

## Political Science Minor/ Teaching Minor/ BIS

**Grade Requirements:** An overall GPA of 2.00 or higher is required and a grade of "C" or better in all Political Science courses used toward the minor/BIS (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 21 credit hours for Political Science minor/BIS and a minimum of 24 credit hours for the teaching minor, which includes HIST 4500 - Teaching Social Studies in Grades 5-12, a required course for Political Science Teaching Minors.

*Students who select the Political Science Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

### Course Requirements

Political Science Courses Required (6 credit hours)

*Select two of the following courses*

- POLS 1100 AI - American National Government **Credits: (3)**
- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**
- POLS 2700 - Introduction to Public Administration **Credits: (3)**

Elective Requirements (15 credit hours)

*Select at least four courses from the following upper division electives.*

- POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**
  
- POLS 3210 - Politics and Governments of Europe **Credits: (3)**
- POLS 3220 - Politics and Governments of Asia **Credits: (3)**
- POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**
- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 3340 - Environmental Political Theory **Credits: (3)**
- POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**
- POLS 3600 - Political Parties **Credits: (3)**
- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 3620 - Political Behavior **Credits: (3)**
- POLS 3630 - Identity Politics **Credits: (3)**
- POLS 3700 - Bureaucratic Politics **Credits: (3)**
- POLS 3750 - Urban Government and Politics **Credits: (3)**
- POLS 3760 - State Government and Politics **Credits: (3)**
- POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**
  
- POLS 4060 - Law and Society **Credits: (3)** or  
CJ 4065 - Law and Society **Credits: (3)**
  
- POLS 4100 - Free Speech in Law and Politics **Credits: (3)**
- POLS 4160 - Topics in World Politics **Credits: (3)**

POLS 4180 - International Law and Organization **Credits: (3)**  
POLS 4190 - Theories of International Politics **Credits: (3)**  
POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4600 - American Congress **Credits: (3)**  
POLS 4620 - The U.S. Supreme Court **Credits: (3)**  
POLS 4640 - American Presidency **Credits: (3)**  
POLS 4750 - Public Policy Analysis **Credits: (3)**  
POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

#### Additional Electives

*These courses may be used to complete the credit requirements.*

POLS 1010 - Introduction to Political Science **Credits: (3)**  
POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**  
POLS 4830 - Directed Readings **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

Note:

*Students may count up to 3 hours of POLS 4830, 3 hours of POLS 4800, and 3 hours of POLS 4860 toward the total of 21 hours required for the minor, if needed.*

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

# Public Administration Minor

**Contact:** Dr. Gary Johnson

**Office:** SS 288

**Website:** garyjohnson@weber.edu

**Phone:** 801-626-6697

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 24 credit hours required.

*Students may not major in Political Science and Minor in Public Administration.*

## Course Requirements for Minor

Required Core Courses (9 credit hours)

POLS 3700 - Bureaucratic Politics **Credits: (3)**

POLS 3750 - Urban Government and Politics **Credits: (3)**

POLS 4750 - Public Policy Analysis **Credits: (3)**

Elective Courses (15 credit hours required)

ECON 1010 SS - Economics as a Social Science **Credits: (3)**

ECON 2010 SS - Principles of Microeconomics **Credits: (3)**

ECON 4520 - Public Finance **Credits: (3)**

ECON 4550 - Introduction to Econometrics **Credits: (3)**

ENGL 3100 - Professional and Technical Writing **Credits: (3)**

FIN 3500 - Capital Budgeting **Credits: (3)**

GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**

GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**

MGMT 3010 - Organizational Behavior and Management **Credits: (3)**

MGMT 4400 - Advanced Organizational Behavior **Credits: (3)**

HIST 3130 - U.S. Urban History **Credits: (3)**

PSY 3460 - Social Psychology **Credits: (3)**

SCM 4400 - Global Supply Chain Management **Credits: (3)**

SOC 3840 - Cities and Urban Life **Credits: (3)**

SOC 3850 - Race & Ethnicity **Credits: (3)**

SOC 4270 - Sociology of Law **Credits: (3)**

POLS 3760 - State Government and Politics **Credits: (3)**

## See also:

Legal Studies Minor

# Political Science Teaching Minor

## Political Science Minor/ Teaching Minor/ BIS

**Grade Requirements:** An overall GPA of 2.00 or higher is required and a grade of "C" or better in all Political Science courses used toward the minor/BIS (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 21 credit hours for Political Science minor/BIS and a minimum of 24 credit hours for the teaching minor, which includes HIST 4500 - Teaching Social Studies in Grades 5-12, a required course for Political Science Teaching Minors.

*Students who select the Political Science Teaching minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

### Course Requirements

Political Science Courses Required (6 credit hours)

*Select two of the following courses*

- POLS 1100 AI - American National Government **Credits: (3)**
- POLS 2100 SS - Introduction to International Politics **Credits: (3)**
- POLS 2200 SS - Introduction to Comparative Politics **Credits: (3)**
- POLS 2300 SS - Introduction to Political Theory **Credits: (3)**
- POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**
- POLS 2700 - Introduction to Public Administration **Credits: (3)**

Elective Requirements (15 credit hours)

*Select at least four courses from the following upper division electives.*

- POLS 3140 - Foreign Policy of the United States **Credits: (3)** or  
HIST 3230 - American Foreign Relations **Credits: (3)**
  
- POLS 3210 - Politics and Governments of Europe **Credits: (3)**
- POLS 3220 - Politics and Governments of Asia **Credits: (3)**
- POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)**
- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 3340 - Environmental Political Theory **Credits: (3)**
- POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**
- POLS 3600 - Political Parties **Credits: (3)**
- POLS 3610 - Campaigns and Elections **Credits: (3)**
- POLS 3620 - Political Behavior **Credits: (3)**
- POLS 3630 - Identity Politics **Credits: (3)**
- POLS 3700 - Bureaucratic Politics **Credits: (3)**
- POLS 3750 - Urban Government and Politics **Credits: (3)**
- POLS 3760 - State Government and Politics **Credits: (3)**
- POLS 3780 - Lobbying: Theory and Practice **Credits: (3)**
- POLS 4020 - American Constitutional Law I **Credits: (3)**
- POLS 4030 - American Constitutional Law II **Credits: (3)**
  
- POLS 4060 - Law and Society **Credits: (3)** or  
CJ 4065 - Law and Society **Credits: (3)**
  
- POLS 4100 - Free Speech in Law and Politics **Credits: (3)**
- POLS 4160 - Topics in World Politics **Credits: (3)**
- POLS 4180 - International Law and Organization **Credits: (3)**

POLS 4190 - Theories of International Politics **Credits: (3)**  
POLS 4280 - Foreign Policies of Major Powers **Credits: (3)**  
POLS 4360 - Classical Political Thought **Credits: (3)**  
POLS 4380 - Modern Political Thought **Credits: (3)**  
POLS 4600 - American Congress **Credits: (3)**  
POLS 4620 - The U.S. Supreme Court **Credits: (3)**  
POLS 4640 - American Presidency **Credits: (3)**  
POLS 4750 - Public Policy Analysis **Credits: (3)**  
POLS 4760 - Rwanda: Genocide and Aftermath **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**  
PHIL 3200 - Philosophy of Democracy **Credits: (3)**  
WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

#### Additional Electives

*These courses may be used to complete the credit requirements.*

POLS 1010 - Introduction to Political Science **Credits: (3)**  
POLS 1520 SS - Leadership and Political Life **Credits: (3)**  
POLS 2500 SS/DV - Human Rights in the World **Credits: (3)**

POLS 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)** or  
POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3)**

POLS 2930 - Peacebuilding in Rwanda **Credits: (3)**  
POLS 3150 - Model United Nations **Credits: (3)**  
POLS 3990 - Political Analysis **Credits: (3)**  
POLS 4800 - Individual Projects and Research **Credits: (1-2)**  
POLS 4830 - Directed Readings **Credits: (1-2)**  
POLS 4860 - Washington D.C. Internships **Credits: (1-6)**  
POLS 4861 - International Internships **Credits: (1-6)**  
POLS 4865 - State and Local Internship **Credits: (1-6)**  
POLS 4870 - Internship in Perspective **Credits: (3)**  
POLS 4880 - Internship Research **Credits: (3)**  
POLS 4940 - Topics in American Politics & Thought **Credits: (3)**

Note:

*Students may count up to 3 hours of POLS 4830, 3 hours of POLS 4800, and 3 hours of POLS 4860 toward the total of 21 hours required for the minor, if needed.*

*All Political Science courses- as well as HIST 3230, PHIL 3200, CJ 4065, and WGS 3050-count toward the total hours required for the political science major and minor. However, none of these courses, if they are being counted for the political science major or minor, may count toward another major or minor. Similarly, if any of these courses are being counted for a major or minor that is not political science, they cannot be counted for the major or minor requirements of political science.*

## Philosophy Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Political Science Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Department of Psychology

**Department Chair:** Aaron Ashley

**Location:** Social Science Building, Room 370

**Telephone Contact:** Mickey Cole 801-626-6247

**Professors:** Aaron Ashley, Eric Amsel, Lauren Fowler, Azenett Garza, Joseph Horvat, Leigh Shaw; **Associate**

**Professors:** Todd C. Baird, Theresa Kay; **Assistant Professors:** Sarah Herrmann, Todd Hillhouse, Cade Mansfield, Shannon McGillivray, Melinda Russell-Stamp; **Instructor:** Maria Parrilla de Kokal

The reasons for selecting a major, minor, or BIS emphasis in Psychology are to understand human behavior and to prepare for careers working or doing research with people. The program is designed for students to learn the core content of psychology and the foundational methods of psychological inquiry, as well as to have opportunities to integrate and apply psychological concepts.

Students majoring (including teaching majors) in Psychology have a program of study which provides training in the foundation in the field but allows for additional coursework in students' areas of interest. BIS students are trained in the conceptual and methodological foundation of the discipline while pursuing topics of interest in the field and related ones. Minors are free to pursue topics of interest to augment their major without the requirement that they acquire the discipline's foundational knowledge, skills, and abilities.

### Psychology Curriculum, Requirements, and Policies

The Psychology Department offers a 45 credit hour major, a 20 hour BIS emphasis, and an 18 credit hour minor. The curriculum provides classes addressing the conceptual, methodological, and statistical knowledge of the discipline (Core General Courses), the breadth of the discipline (Core Content Courses), and the integration and application of the discipline (Capstone Experience). Additional classes provide greater content area specialization (Elective Group A) and experiential or individualized instruction opportunities (Elective Group B).

All Psychology major (including teaching major) and minor students must meet with the designated Department Adviser as soon as they declare to plan their course of study. BIS students with an emphasis in psychology must additionally have their psychology courses approved by the designated Department Adviser (Advising Policy).

To count towards students' degree in Psychology, psychology courses must be passed with a grade of C or higher (Course Grade Policy).

Students declaring a Psychology major, minor, or BIS emphasis in a given catalog year can apply previously completed courses towards their degree (see Course Grade Policy) as long as the courses were taken no longer than 15 years prior to the date of declaration (Course Sunset Policy).

A student with a Psychology major, minor, or BIS emphasis must earn at least a 2.50 Psychology GPA for courses being used for graduation (Psychology GPA Policy).

Students may transfer undergraduate psychology credits from any other accredited institution of higher education toward their degree (see the Sunset Policy) by submitting a request through the University's Transfer Office. Courses taught in departments other than Psychology will not generally transfer as Psychology courses. Lower division (1000- or 2000-level) courses at another institution will not generally count as equivalent to upper division (3000- or 4000-level) WSU

courses. To challenge a transfer articulation, please contact the Department Chair with documentation including the syllabi from the courses taken (Transfer Articulation Policy).

Students who are majoring in Psychology must complete at least 9 credit hours of Psychology courses (see Course Grade Policy) in residence at Weber State University; students who are minoring in Psychology must complete at least 6 credit hours of Psychology courses (see Course Grade Policy) in residence at Weber State University (Residency Requirement).

## **Degree Programs in Psychology**

### Bachelor of Science

#### **Psychology Major (BS)**

45 credit hours total, including 11 Core General Course credits, 18 Core Content Course credits, 4 Capstone Course credits, and 12 elective credits taken from any area (only 1 course from Area Group 3). However, only a maximum of 6 credits from Electives Group B will be allowed to apply toward the Psychology Major.

#### **Psychology Teaching Major (BS)**

45 credit hours total, including 11 Core General Course credits, 18 Core Content Course credits, 4 Capstone Course credits, PSY 4000 (taken as a capstone or elective), and 9 elective credits taken from any area. Only 6 credits from Electives Group B will be allowed to apply toward the Psychology Teaching Major.

### Emphasis Option for Bachelor of Integrated Studies

#### **Psychology (BIS)**

20 credit hours total, including 11 Core General Course credits and 9 credits taken from any area with the approval of the designated Department Adviser.

### Minor

#### **Psychology Minor**

18 credits, including PSY 1010 and 15 credits taken from any area. Only 3 credits from Electives Group B will be allowed to apply toward the Psychology Minor.

### Honors, Departmental

#### **Psychology Departmental Honors**

Department Honors is conferred on students who keep at least a 3.70 GPA in Psychology and 3.25 overall GPA. Students must complete PSY 4910 and 3 credits from the Honors Program. An application for department honors in Psychology is available from the Department Adviser.

### **Interdisciplinary Minors**

The Psychology Department participates in the Latin American Studies, Linguistics, Neuroscience, and Women & Gender Studies minor programs. Students who wish to enroll in one of these programs should indicate their desire to do so with the relevant program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

# Psychology Major (BS)

## Psychology Major and Psychology Teaching Major (BS)

**Program Prerequisite:** None. Psychology Teaching majors and minors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

**Minor:** Required, unless a student is a double major.

**Grade Requirements:** A grade of "C" or better is required in all courses used to fulfill requirements for the psychology major or minor (a grade of "C-" is not acceptable). In addition an overall GPA for Psychology courses of 2.50 or higher is required. Also refer to the general grade requirements for graduation Degree Requirements.

**Credit Hour Requirements:** The University requires a total of 120 credit hours for graduation. For psychology, a minimum of 45 credit hours are required within the major. The University requires a total of 40 upper division credit hours (courses numbered 3000 and above).

### Advisement

After declaring psychology as a major, each student is assigned an advisor. Psychology majors should consult with their advisor each semester prior to registration or as needed. Call the department secretary to schedule an appointment. Psychology teaching majors are encouraged to also consult with an advisor in the Jerry and Vickie Moyes College of Education (call 801-626-6269, Teacher Education Department). (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the psychology major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. A number of courses in the major fulfill general education requirements (PSY 1010, PSY 2000) or graduation requirements (PSY 2370, PSY 3100).

### Major Course Requirements for BS Degree

Summary of Psychology Courses Required (45 credit hours)

*Refer to the Psychology Courses Table in the Department of Psychology.*

Core General Courses: 11 credit hours

Core Content Courses: 18 credit hours; Required to take 1 course from Areas A-F

Capstone Requirement: 4 credit hours

Additional Courses: 12 credit hours

Additional Course requirements may be fulfilled by taking further Core Courses, Electives Group A (Area Specialization) Courses, or Electives Group B (Individualized Instruction and Experiential) Courses.

*Psychology Teaching majors are also required to take courses required by the Teacher Education program, and also PSY 4000 or PSY 4090. PSY 4000 is recommended as the choice unless a case can be made for PSY 4090.*

# Psychology Teaching (BS)

## Psychology Major and Psychology Teaching Major (BS)

**Program Prerequisite:** None. Psychology Teaching majors and minors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

**Minor:** Required, unless a student is a double major.

**Grade Requirements:** A grade of "C" or better is required in all courses used to fulfill requirements for the psychology major or minor (a grade of "C-" is not acceptable). In addition an overall GPA for Psychology courses of 2.50 or higher is required. Also refer to the general grade requirements for graduation Degree Requirements.

**Credit Hour Requirements:** The University requires a total of 120 credit hours for graduation. For psychology, a minimum of 45 credit hours are required within the major. The University requires a total of 40 upper division credit hours (courses numbered 3000 and above).

### Advisement

After declaring psychology as a major, each student is assigned an advisor. Psychology majors should consult with their advisor each semester prior to registration or as needed. Call the department secretary to schedule an appointment. Psychology teaching majors are encouraged to also consult with an advisor in the Jerry and Vickie Moyes College of Education (call 801-626-6269, Teacher Education Department). (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the psychology major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. A number of courses in the major fulfill general education requirements (PSY 1010, PSY 2000) or graduation requirements (PSY 2370, PSY 3100).

### Major Course Requirements for BS Degree

Summary of Psychology Courses Required (45 credit hours)

*Refer to the Psychology Courses Table in the Department of Psychology.*

Core General Courses: 11 credit hours

Core Content Courses: 18 credit hours; Required to take 1 course from Areas A-F

Capstone Requirement: 4 credit hours

Additional Courses: 12 credit hours

Additional Course requirements may be fulfilled by taking further Core Courses, Electives Group A (Area Specialization) Courses, or Electives Group B (Individualized Instruction and Experiential) Courses.

*Psychology Teaching majors are also required to take courses required by the Teacher Education program, and also PSY 4000 or PSY 4090. PSY 4000 is recommended as the choice unless a case can be made for PSY 4090.*

# Psychology (BIS)

## BIS Emphasis

**Grade Requirements:** A grade of "C" or better in courses used toward the BIS emphasis (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 20 credit hours (includes PSY 1010).

*For advisement contact the Department Chairperson who will help you select courses which will compliment your other two BIS areas or complement your major.*

### Course Requirements for BIS Emphasis

#### Psychology Courses Required

Core General Courses (**11 credits**)

PSY 1010 SS - Introductory Psychology **Credits: (3)**

**OPTION A OR OPTION B** to complete Statistics and Research Methods Sequence - **Credits (8)**

Elective Courses (minimum 9 additional credit hours)

*Refer to the Psychology Courses Table in the Department of Psychology.*

*Only one course from Electives Group B will be allowed to apply toward the BIS. Approval of the Department Chair is required. (Also refer to the Psychology (BIS) Bachelor of Integrated Studies Program.)*

# Psychology Minor

## Minor

**Grade Requirements:** A grade of "C" or better in courses used toward the Minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 18 credit hours (includes PSY 1010).

*For advisement contact the Department Chairperson who will help you select courses which will compliment your other two BIS areas or complement your major.*

### Course Requirements for Minor

#### Psychology Course Required

PSY 1010 SS - Introductory Psychology **Credits: (3)**

Elective Courses (minimum 15 credit hours)

Note:

*Refer to the Psychology Courses Table in the Department of Psychology.*

*May be taken from any of the courses in the Core General Courses, Core Content Courses, Elective Groups A or B. However, only one course from Electives Group B will be allowed to apply toward the minor.*

# Psychology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Psychology Courses Table

Core General Courses (11 credit hours, required of Psychology Majors, Teaching Majors and BIS students)

PSY 1010 SS - Introductory Psychology **Credits: (3)** \*

***There are two options to complete the required Statistics and Research Methods course sequence in Psychology. A student must complete one option or the other and cannot complete the sequence by a combination of courses in each option.***

OPTION A:

This option is strongly encouraged for all Psychology Majors including teaching majors and those with a BIS emphasis.

PSY 3615 - Psychological Statistics and Methods I **Credits: (4)** \*\*

PSY 3616 - Psychological Statistics and Methods II **Credits: (4)** \*\*

OPTION B:

PSY 3600 - Statistics in Psychology **Credits: (3)** \*\*\*

PSY 3605 - Psychology Statistics Lab **Credits: (1)** \*\*\*\*

PSY 3610 - Research Methods in Psychology **Credits: (4)** \*\*\*\*\*

NOTE:

*\*PSY 1010 is required for all courses in the psychology curriculum EXCEPT the following: PSY 1540, PSY 2000, PSY 2370, PSY 3000, PSY 3010, PSY 3100, PSY 3140, PSY 3600, PSY 3605, PSY 3615, PSY 3616, and PSY 4900.*

*\*\*PSY 3615 and 3616 is a yearlong course sequence offered each academic year, with 3615 offered in the Fall of a given academic year and 3616 offered in the Spring. The sequence must be completed in the same academic year and with the same faculty member to complete the departmental Statistics and Research Methods requirement. It is recommended that the course sequence be taken in the junior year and has the prerequisite of MATH 1010 or equivalent.*

*\*\*\* PSY 3600 is recommended to be taken no later than first semester junior year and has a prerequisite of MATH 1010 or equivalent. PSY majors may substitute CJ 3600, SW 3600, or SOC 3600 for PSY 3600, but an additional 3 credits will be added to the graduation requirement (this addition is waived for dual majors).*

*\*\*\*\*PSY 3605 is recommended to be taken no later than first semester junior year and has PSY 3600 or its equivalent as a prerequisite/co-requisite.*

*\*\*\*\*\* PSY 3610 is recommended to be taken no later than second semester junior year. Note that PSY 3600 and PSY 3605 (or equivalents approved by the Department Chair) are prerequisite courses for PSY 3610.*

## Core Content Courses (18 credit hours, required of Psychology Majors and Teaching Majors)

### Area A: Biological Basis of Behavior (Choose 1 course)

PSY 2730 - Biopsychology **Credits: (3)** † or  
NEUR 2050 - Introduction to Neuroscience **Credits: (3)** †

### Area B: Development Basis of Behavior (Choose 1 course)

PSY 3000 - Child Psychology **Credits: (3)** † or  
PSY 3140 - Adolescent Psychology **Credits: (3)** †

### Area C: Abnormal Psychology

PSY 3010 - Abnormal Psychology **Credits: (3)**

### Area D: Cognitive Basis of Behavior (Choose 1 course)

PSY 2250 - Learning and Memory **Credits: (3)** † or  
PSY 3500 - Cognition **Credits: (3)** †

### Area E: Individual Differences and Social Processes (Choose 1 course)

PSY 3460 - Social Psychology **Credits: (3)** † or  
PSY 3430 - Theories of Personality **Credits: (3)** †

### Area F: Diversity (Choose 1 course)

PSY 2000 SS - The Psychology of Human Relationships **Credits: (3)** † or  
PSY 2370 - Psychology of Women and Gender **Credits: (3)** † or  
PSY 3100 - Psychology of Diversity **Credits: (3)** †

### NOTE:

† One of these courses must be taken to fulfill the core course requirements. However, students may opt to take the other course(s) in each section as electives.

Capstone Requirement (4 credit hours, required of Psychology Majors and Teaching Majors, prerequisite: PSY 3610 or 3616).

Student must complete PSY 4950 and one other capstone class to fulfill the capstone requirements in Psychology.

PSY 4950 - Capstone Experience: Promoting Psychological Literacy **Credits: (1)** (Required)\*

#### **AND**

PSY 4000 - Advanced General **Credits: (3)** † \*\* or  
PSY 4050 - Evolutionary Psychology **Credits: (3)** † or  
PSY 4090 - History and Systems of Psychology **Credits: (3)** † or  
PSY 4100 - Psychology in the Media **Credits: (3)** † or  
PSY 4310 - Introduction to Counseling Theories **Credits: (3)** † \*\*\* or  
PSY 4390 - Capstone Practicum **Credits: (3)** † & or  
PSY 4760 - Tests and Measurements **Credits: (3)** † or  
PSY 4805 - Capstone Projects and Research **Credits: (3)** † & or  
PSY 4835 - Capstone Directed Readings **Credits: (3)** † & or  
PSY 4905 - Capstone Selected Topics in Psychology **Credits: (3)** † \*\*\*\* or

PSY 4910 - Senior Thesis **Credits: (3)** (3 + 3) † & \*\*\*\*\*

NOTE:

† In addition to 4950, one of these courses must be taken to fulfill the capstone course requirement. Each has PSY 3610 or 3616 as a prerequisite. Students may opt to take the other courses in this group as an elective.

& Permission of instructor and/or application/contract required.

\* PSY 4950 requires one of the other capstone courses as a prerequisite or co-requisite.

\*\*PSY 4000 required of teaching majors as a capstone or elective class.

\*\*\*PSY 4310 requires PSY 3010 as a prerequisite.

\*\*\*\*PSY 4905 prerequisite course(s) will depend on class topic.

\*\*\*\*\*PSY 4910 is taken for one semester to complete and defend a research proposal. This course is taken for a second semester to complete and defend the research project.

Additional Courses (12 credit hours required for Majors and Teaching Majors taken from the Core General, Core Content, Capstone Experience, or Elective (Group A or B) courses).

Electives Group A: Area Specialization Courses

PSY 2010 - Science and Profession of Psychology **Credits: (3)**  
PSY 3020 - Child and Adolescent Psychopathology **Credits: (3)**  
PSY 3200 - Psychology of Sport, Injury & Rehabilitation **Credits: (3)** +  
PSY 3240 - The Psychology of Drug Use and Abuse **Credits: (3)**  
PSY 3255 - Conditioning, Learning, & Behavior Modification **Credits: (3)**  
PSY 3270 - Motivation and Emotion **Credits: (3)**  
PSY 3450 - Psychology of Language **Credits: (3)** +  
PSY 3550 - Psychology of Consciousness **Credits: (3)** +  
PSY 3560 - Group Dynamics and Counseling **Credits: (3)**  
PSY 3730 - Perception **Credits: (3)** +  
PSY 3740 - Neuropsychopharmacology **Credits: (3)** +  
PSY 3850 - Forensic Psychology **Credits: (3)**  
PSY 4340 - Skills and Techniques of Counseling **Credits: (3)** +  
PSY 4510 - Industrial and Organizational Behavior **Credits: (3)**  
PSY 4575 - Psychology of Criminal Behavior **Credits: (3)** +  
PSY 4900 - Selected Topics in Psychology **Credits: (2-3)** +  
PSY 4990 - Seminar **Credits: (1)**

NOTE:

+ see class description for specific prerequisites.

Electives Group B: Individualized Instruction and Experiential Courses

PSY 1540 - Psychology of Adjustment and Growth **Credits: (3)**  
PSY 2800 - Projects and Research **Credits: (1-3)** \* &  
PSY 2830 - Directed Readings **Credits: (1-3)** \*\* &  
PSY 2890 - Cooperative Work Experience **Credits: (1-2)** \*\*\* &  
PSY 4380 - Practicum **Credits: (1-4)** \*\*\*\* &  
PSY 4800 - Projects and Research **Credits: (1-3)** \*\* &  
PSY 4830 - Directed Readings **Credits: (1-3)** \*\* &

PSY 4890 - Cooperative Work Experience **Credits: (1-2) \*\*\*** &  
PSY 4920 - Workshops, Institutes and Special Programs **Credits: (1-3) \*\*\*\*\***

NOTE:

*& Permission of instructor or chair and/or application/contract required.*

*\* PSY 2800 must be taken prior to completing PSY 3610 otherwise student may enroll in PSY 4800.*

*\*\* PSY 2830 must be taken prior to completing PSY 3610 otherwise student may enroll in PSY 4830.*

*\*\*\* PSY 2830/4890 requires the student to have a current job in the field. 2830 may be taken by non-psychology majors or minors, 4830 requires PSY major or minor status.*

*\*\*\*\* PSY 4380 requires 18 credit hours of psychology courses, approved by the supervising instructor, one of which must be PSY 1010. Also, permission of the instructor is required.*

*\*\*\*\*\* PSY 4920 may be used for credit toward a major or minor or BIS in psychology but only when written permission of the department is given at the time of registration.*

Course Designations:

DV = Fulfills a University Diversity Requirement

SS = Fulfills a Social Science General Education Requirement

## Department of Social Work and Gerontology

**Department Chair:** Mark Bigler

**Location:** Social Science Building, Room 140

**Telephone Contact:** Tracy Hicks, 801-626-6157

**Professor:** Mark Bigler, Kerry Kennedy-Pressey, **Associate Professor:** Corina Segovia Tadehara; **Assistant**

**Professors:** Barrett Bonella, Steve Vigil; **Instructor:** Kristina Moleni

### Social Work

The goal of social work education at every level is for students to integrate the knowledge, skills, and values of the profession into a generalist practice framework. Social work education takes place in four year undergraduate and two-year graduate programs and leads to professional degrees at the baccalaureate and master's levels, respectively. These levels of education differ from each other in the level of knowledge and skill they expect students to synthesize in practice competence. These distinctions and the discretion provided by the tradition of academic freedom contribute to the desired uniqueness of each program. The Social Work program at Weber State University is accredited at the baccalaureate level by the Council on Social Work Education.

Social Work is a self-regulating profession with sanction from public, private and voluntary auspices. Through all its roles and functions and multiple settings, social work is based on knowledge and competence in evidence-based practice skills, and is guided by professional values and ethics. With its central focus on the transactions between people and their environments, social work uses research and theory from social, behavioral, and biological sciences as well as from social work practice itself, developing a unique perspective on the human condition.

Sound curriculum designs give the educational program the integrated focus inherent in the profession's enduring philosophical base. This ensures historical continuity and provides a stable framework from which to assess and incorporate practice innovations, emerging knowledge, and interdisciplinary exchanges. This combination of curricular stability and flexibility is essential if the program is to respond effectively to changing social forces and provide leadership in the profession's ongoing quest for progressive social change.

It is, therefore, essential that all professional social workers have in common knowledge, skills, and values that are generally transferable from one setting, population group, geographic area, or problem to another.

The Social Work program is designed to: (1) prepare students for generalist entry-level social work practice; (2) prepare students for graduate social work education; (3) prepare students to take the Social Service Worker licensing examination; (4) provide a liberal, interdisciplinary learning experience to help students in their understanding of and adjustment to living in a democratic society; and (5) provide continuing educational opportunities for baccalaureate and paraprofessional social welfare providers.

## Gerontology

Gerontology is the multi-disciplinary study of the processes of aging from conception to death with special focus on the later life cycle and the problems associated with aging and the aged in society. Individuals working in the field of aging need a broad range of knowledge that transcends a single academic discipline. The Gerontology Program at Weber State University is designed to: (1) provide preparation for employment in both the private and public sector including working with senior citizen centers, nutrition programs, housing projects, long-term care facilities, state and local aging programs, Hospice, research, senior volunteer programs, job services, retirement planning and other age-related employment; (2) provide continuing education for job enrichment and preparation for persons already in the aging employment sector through consultation, workshops and academic courses to enhance career opportunities; (3) provide general education courses designed to assist students in understanding and dealing with older persons within their family and society at large; (4) encourage students to go directly into aging employment and/or to seek graduate degrees in gerontology or related fields leading to positions in national, regional and local aging network sectors.

*Note: No new majors are being accepted in this program at this time. However, the minor, BIS emphasis, and non-degree certificate programs are active and available.*

# Social Work (BA)

## Social Work Major Bachelor's Degree (BS or BA)

**Program Prerequisite:** Must be accepted to the program (see Admissions Requirements described later in this section).

**Minor:** The Social Work Major requires either: (a) the completion of a minor; or (b) a minor alternative. Minor requirements are found in the University catalog under the specific programs that offer them. As an alternative to a minor, a Social Work Major may choose to complete 18 credits (generally the equivalent of six courses) from a set of approved elective enrichment courses listed below.

**Grade Requirements:** A grade of "C" or better is required in all courses toward and included in this major (a grade of "C-" is not acceptable). In addition, an overall GPA for these courses of 2.5 must be maintained. Also refer to the general grade requirements Degree Requirements. Students not meeting the minimum grade requirements for an individual Social Work course may repeat that course one (1) time before being dropped from the Social Work program. In the rare event a student is unable to complete SW 4860 and SW 4861 in the field agency they are originally placed, at the discretion of the field placement advisor, the student may request a new placement one (1) time only. Students at any time failing to meet the overall GPA of 2.5 will be given a probationary semester to raise their GPA to the minimum standard. Failure to comply with this policy will result in being dropped from the Social Work program.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 41 of these is required within the major not counting the prerequisite courses totaling 18 semester hours. A total of 40 upper division credit hours is required for graduation from Weber State University (courses numbered 3000 and above).

## Advisement

Students accepted into the program are assigned to a faculty advisor for academic and professional advising. The faculty advisor assists students with course scheduling, academic counseling, and professional self-assessment. Students are required to see their faculty advisor at least one time per semester prior to registration. Call the Social Work/Gerontology office number, 801-626-6157, or the Department Chair, 801-626-6156, for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

## Admission Requirements

Declare a program of study (see Enrollment Services and Information). Satisfactory completion of the following is required prior to formal acceptance into the program:

WSU Writing Competency (Composition)\*

WSU Quantitative Literacy\*

WSU Information Literacy\*

60-63 semester graduation hours (or equivalent) including the prerequisite courses listed below for the Behavioral and Social Sciences, Human Development, and Social Work prerequisites. These courses must be completed with a grade of "C" or better and with a total GPA of 2.5 or better.

Students agree to abide by the National Association of Social Workers Code of Ethics.

### Note:

*\* Refer to General Requirements on Degree Requirements*

## Courses Required Prior to Formal Acceptance to the Social Work Program

Behavioral and Social Science Prerequisites (9 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

PSY 1010 SS - Introductory Psychology **Credits: (3)**

SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)**

Human Development Prerequisite (3 credit hours)

ZOOL 1020 LS - Human Biology **Credits: (3)**

Note:

*Any transfer course in this area must contain only human biology content, courses with animal or plant content are not acceptable*

Social Work Prerequisites (6 credit hours)

SW 1010 SS - Introduction to Generalist Social Work **Credits: (3)**

SW 2100 SS - Human Behavior and the Social Environment I **Credits: (3)**

Note:

*ZOOL 1020 should be taken prior to or concurrently with SW 2100*

## Formal Admission to the Social Work Program

Formal applications for admission to the program will be considered during the semester the student is in the process of completing final prerequisites or anytime thereafter. Applications may be downloaded from the Department's website or obtained at the Social Work office (Social Science Building, room 140). The Admissions and Retention Committee will consider all applications and make one of the following recommendations:

- Full admission to the program;
- Admission to the program with contingencies;
- Denial of admission to the program.

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. The following courses for the Social Work prerequisite requirements will also fulfill general education requirements: SW 1010 SS - Introduction to Generalist Social Work; ANTH 1000 SS/DV - Introduction to Anthropology; PSY 1010 SS - Introductory Psychology; SOC 1010 SS/DV - Introduction to Sociology; and ZOOL 1020 LS - Human Biology.

## Major Course Requirements for BS or BA Degree

*The following should be taken after completing the above prerequisites.*

Required Social Work Core Courses (38 credit hours)

- SW 2200 SS/DV - Issues in Diversity **Credits: (3)**
- SW 3100 - Human Behavior and the Social Environment II **Credits: (2)**
- SW 3200 - Child and Family Welfare **Credits: (2)**
- SW 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**
- SW 3600 - Social Statistics **Credits: (3)** (or equivalent)  
*(Prerequisite – Quantitative Literacy. Must be completed prior to SW 4861)*
- SW 3700 - Social Work Research **Credits: (3)** *(It is recommended to take a Statistics course [SW 3600] prior to Research)*
- SW 3900 - Social Work Methods, Values, and Ethics **Credits: (3)**
- SW 3910 - Social Work Practice I **Credits: (3)** *(Make application for Social Service Field Experience prior to completing SW 3910)*
- SW 3920 - Social Work Practice II **Credits: (3)**
- SW 3930 - Social Work Practice III **Credits: (3)**
- SW 4500 - Interventions for Populations at Risk **Credits: (3)**
- SW 4860 - Social Service Field Experience I **Credits: (4)**
- SW 4861 - Social Service Field Experience II **Credits: (4)**
- SW 4990 - Social Work Senior Seminar **Credits: (2)**

## Courses Required to fulfill the BA

*The following must be taken to qualify for a Bachelor of Arts (BA) degree in Social Work*

12 semester credits in any foreign language

OR

6 semester credits in any foreign language

and

SW 3800 - Writing in Social Work **(3)**

and

Select one of the following

- ANTH 1040 HU/DV - Language and Culture **Credits: (3)**
- COMM 1020 HU - Principles of Public Speaking **Credits: (3)**
- COMM 2110 HU - Interpersonal and Small Group Communication **Credits: (3)**
- ENGL 2200 HU/DV - Introduction to Literature **Credits: (3)**
- ENGL 2220 HU/DV - Introduction to Fiction **Credits: (3)**
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**
- ENGL 3510 HU/DV - World Literature **Credits: (3)**
- PHIL 1120 HU - Contemporary Moral Problems **Credits: (3)**
- PHIL 1250 HU - Critical Thinking **Credits: (3)**

Note:

*Courses taken to meet BA requirements may also be applied to fill general education requirements. SW 3800 Writing in Social Work may NOT be counted by BA candidates as credit toward the 18 credit hours approved as an alternative to a traditional minor.*

## **Electives (Optional)**

SW 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**

GERT 3000 - Death and Dying **Credits: (3)** or  
SW 3000 - Death and Dying **Credits: (3)**

GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)** or  
SW 3120 - Aging: Adaptation and Behavior **Credits: (3)**

GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)** or  
SW 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

SW 3800 - Writing in Social Work **Credits: (3)** (optional for BS in Social Work)  
SW 4140 - Perspectives on Drug Use and Substance Abuse **Credits: (3)**  
SW 4150 - DSM-5 **Credits: (3)** (optional for BA in Social Work)

GERT 4220 - Societal Responses to Aging **Credits: (3)** or  
SW 4220 - Societal Responses to Aging **Credits: (3)**

SW 4250 - Medical Social Work **Credits: (3)**  
SW 4600 - Social Work in Special Settings **Credits: (2-4)**

GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)** or  
SW 4650 - Retirement: Adjustment/Planning **Credits: (3)**

SW 4800 - Projects and Research **Credits: (1-3)**  
SW 4810 - Experimental Courses **Credits: (2-3)**  
SW 4830 - Directed Readings **Credits: (1-3)**  
SW 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (2-4)**

## **Courses Approved as an Alternative to a Traditional Minor**

As an alternative to a minor, a Social Work Major may choose to complete a minimum of 18 credits (generally the equivalent of six courses) from the following list of elective enrichment courses. Other courses not on this list may be approved to meet this requirement at the discretion of a student's faculty advisor with the consent of the Social Work faculty. At least six of these credits must be taken in Social Work. No more than six credits may be taken within a single

discipline. Students are strongly encouraged to consult with their faculty advisor in selecting one of these options. Courses used to meet the minor alternative MUST be pre-approved by a faculty advisor.

## Social Work (6 credit hours)

- SW 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- SW 3000 - Death and Dying **Credits: (3)** \*
- SW 3120 - Aging: Adaptation and Behavior **Credits: (3)** \*
- SW 3320 - Ethnicity and Older Women in the American Society **Credits: (3)** \*
- SW 3800 - Writing in Social Work **Credits: (3)** (optional for BS in Social Work)
- SW 4140 - Perspectives on Drug Use and Substance Abuse **Credits: (3)**
- SW 4150 - DSM-5 **Credits: (3)** (optional for BA in Social Work)
- SW 4250 - Medical Social Work **Credits: (3)**
- SW 4600 - Social Work in Special Settings **Credits: (2-4)**
- SW 4650 - Retirement: Adjustment/Planning **Credits: (3)** \*
- SW 4800 - Projects and Research **Credits: (1-3)** (consent of department chair required)
- SW 4810 - Experimental Courses **Credits: (2-3)**
- SW 4830 - Directed Readings **Credits: (1-3)** (consent of department chair required)
- SW 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (2-4)**

Note:

*\*Cross-listed with Gerontology (GERT)*

## Anthropology

- ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**
- ANTH 3700 - Sex Roles: Past, Present and Future **Credits: (3)**
- ANTH 3900 - Magic, Shamanism and Religion **Credits: (3)**

## Communication

- COMM 3080 - Intercultural Communication **Credits: (3)** (prerequisite COMM 2110)

## Child and Family Studies

- CHF 3350 - Diverse Families **Credits: (3)**
- CHF 3500 - Young Children at Risk **Credits: (3)** (prerequisite CHF 1500)
- CHF 3550 - Parenting Education **Credits: (3)**
- CHF 3650 - Family Processes **Credits: (3)** (prerequisite CHF 2400, CHF 3350)
- CHF 4400 - The Family in Stress **Credits: (3)**

## Criminal Justice

- CJ 3040 - Community Policing **Credits: (3)**
- CJ 3060 - Corrections in the Community **Credits: (3)**
- CJ 3270 - Theories of Crime and Delinquency **Credits: (3)**
- CJ 3300 - Victimology **Credits: (3)**
- CJ 3400 - Drugs and Crime **Credits: (3)**

## Economics

- ECON 3410 - Women in the World Economy **Credits: (3)** (prerequisite ECON 2010)

## Gerontology

- GERT 3000 - Death and Dying **Credits: (3) \***
- GERT 3120 - Aging: Adaptation and Behavior **Credits: (3) \***
- GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3) \***
- GERT 4650 - Retirement: Adjustment/Planning **Credits: (3) \***

Note:

*\* Cross-listed with Social Work (SW)*

## Health

- HLTH 3000 - Foundations of Health Promotion **Credits: (3)** (prerequisite HLTH 1030)
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 3420 - Multicultural Health and Nutrition **Credits: (3)** (same as NUTR 3420)
- HLTH 3500 - Human Sexuality **Credits: (3)**

## Health Administrative Services

- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**
- HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)** (prerequisite HAS 3000)
- HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)** (prerequisite HAS 3000 & HAS 3260)
- HAS 4520 - Long-Term Care Administration **Credits: (2)** (prerequisite HAS 3000 & HAS 4400)

## Management

- MGMT 3010 - Organizational Behavior and Management **Credits: (3)**
- MGMT 4400 - Advanced Organizational Behavior **Credits: (3)** (prerequisite MGMT 3010)

## Philosophy

- PHIL 3350 - Medical Ethics **Credits: (3)**

## Political Science

- POLS 3330 - American Political Thought **Credits: (3)**
- POLS 3630 - Identity Politics **Credits: (3)**
- POLS 3700 - Bureaucratic Politics **Credits: (3)**
- POLS 4600 - American Congress **Credits: (3)**
- POLS 4750 - Public Policy Analysis **Credits: (3)**

## Psychology

- PSY 3000 - Child Psychology **Credits: (3)**
- PSY 3010 - Abnormal Psychology **Credits: (3)**
- PSY 3100 - Psychology of Diversity **Credits: (3)**
- PSY 3430 - Theories of Personality **Credits: (3)** (prerequisite PSY 1010)
- PSY 3460 - Social Psychology **Credits: (3)** (prerequisite PSY 1010)
- PSY 3500 - Cognition **Credits: (3)** (prerequisite PSY 1010)

## Sociology

- SOC 3110 - Sociology of Family **Credits: (3)**
- SOC 3270 - Criminology **Credits: (3)** (prerequisite SOC 1010 or SOC 1020)
- SOC 3300 - Environment and Society **Credits: (3)**
- SOC 3410 - Sociology of Religion **Credits: (3)**
- SOC 3420 - Sociology of Education **Credits: (3)**
- SOC 3430 - Medicine and Healthcare in Society **Credits: (3)**

## Women's Studies

- WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

## Gerontology (BS)

*Note: No new majors are being accepted in this program at this time. However, the minor, BIS emphasis, and non-degree certificate programs are active and available.*

**Program Prerequisite:** Not required.

**Minor:** Required.

**Grade Requirements:** A grade of "C" or better is required in all courses used toward the major (a grade of "C-" is not acceptable) in addition to an overall GPA for Gerontology courses of 2.5 or higher. Also refer to the general grade requirements for graduation on Degree Requirements.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 31 of these is required within the major. A total of 40 upper division credit hours is required for graduation from Weber State University (courses numbered 3000 and above); 19-28 of these are required within the major.

### Advisement

Students are assigned to a faculty advisor for academic and professional advising. The faculty advisor assists students with course scheduling, academic counseling, and professional self-assessment. Students are required to see their faculty advisor at least one time per semester prior to registration. Call the Social Work/Gerontology office number, 801-626-6157, for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). Students must file "Major/Minor Declaration" form with the department office.

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. GERT 1010 will fill both a major/minor and general education requirement.

## Major Course Requirements for BS Degree

### Required Gerontology Courses (22 credit hours)

- GERT 1010 SS - Introduction to Gerontology **Credits: (3)**
- GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

- GERT 3400 - Methods of Research: Social and Behavioral Research **Credits: (4)**
- GERT 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**
- GERT 3600 - Social Statistics **Credits: (3)**
- GERT 4860 - Introductory Field Practicum **Credits: (2)**
- GERT 4861 - Advanced Field Practicum **Credits: (2)**
- GERT 4990 - Senior Seminar **Credits: (2)**

## Gerontology Elective (3 credit hours)

*Select 1 course from the following*

- GERT 2220 - Introduction to Social Gerontology **Credits: (3)**
- GERT 3000 - Death and Dying **Credits: (3)**
- GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**
- GERT 4220 - Societal Responses to Aging **Credits: (3)**
- GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)**

## Area Course Electives (6 credit hours)

*Select a minimum of six credit hours from one of the following five areas (all six credits MUST be from the same area): (1) Counseling, (2) Health and Leisure, (3) Administrative/Management, (4) Social Services, and (5) Nutrition. Students who complete a double major in a related approved field will satisfy this requirement. It should be noted that prerequisites for classes listed below must be satisfied.*

### 1. Counseling

- PSY 3430 - Theories of Personality **Credits: (3)**
- PSY 4310 - Introduction to Counseling Theories **Credits: (3)**
- PSY 4340 - Skills and Techniques of Counseling **Credits: (3)**
- SOC 3000 - Self and Society **Credits: (3)**
- ANTH 1040 HU/DV - Language and Culture **Credits: (3)**
- SW 3910 - Social Work Practice I **Credits: (3)**
- SW 3920 - Social Work Practice II **Credits: (3)**

### 2. Health and Leisure

- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HTHS 1101 - Medical Terminology **Credits: (2)**
- HTHS 3328 - Pathophysiology of Cells and Tissues **Credits: (2)**
- PE 1098 - Fitness for Life **Credits: (1)**
- PEP 2480 - Fitness for Life Concepts **Credits: (1)**
- OCRE 3100 - Recreation Leadership and Group Facilitation **Credits: (3)**

### 3. Administrative/Management

- ACTG 2010 - Survey of Accounting I **Credits: (3)**
- ACTG 2020 - Survey of Accounting II **Credits: (3)**
- BSAD 3000 - Small Business Management **Credits: (3)**
- MKTG 3010 - Marketing Concepts and Practices **Credits: (3)**

### 4. Social Services (select from two academic areas)

- SW 1010 SS - Introduction to Generalist Social Work **Credits: (3)**
- SW 2100 SS - Human Behavior and the Social Environment I **Credits: (3)**
- SW 3900 - Social Work Methods, Values, and Ethics **Credits: (3)**

ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**

CHF 2400 SS/DV - Family Relations **Credits: (3)**

CHF 4400 - The Family in Stress **Credits: (3)**

## 5. Nutrition

NUTR 1020 LS - Science and Application of Human Nutrition **Credits: (3)**

NUTR 2320 - Food Values, Diet Design and Health **Credits: (3)**

NUTR 3320 - Health and Nutrition in the Older Adult **Credits: (3)** or

HLTH 3320 - Health and Nutrition in the Older Adult **Credits: (3)**

NUTR 3420 - Multicultural Health & Nutrition **Credits: (3)** or

HLTH 3420 - Multicultural Health and Nutrition **Credits: (3)**

## Social Work (BS)

### Social Work Major Bachelor's Degree (BS or BA)

**Program Prerequisite:** Must be accepted to the program (see Admissions Requirements described later in this section).

**Minor:** The Social Work Major requires either: (a) the completion of a minor; or (b) a minor alternative. Minor requirements are found in the University catalog under the specific programs that offer them. As an alternative to a minor, a Social Work Major may choose to complete 18 credits (generally the equivalent of six courses) from a set of approved elective enrichment courses listed below.

**Grade Requirements:** A grade of "C" or better is required in all courses toward and included in this major (a grade of "C-" is not acceptable). In addition, an overall GPA for these courses of 2.5 must be maintained. Also refer to the general grade requirements Degree Requirements. Students not meeting the minimum grade requirements for an individual Social Work course may repeat that course one (1) time before being dropped from the Social Work program. In the rare event a student is unable to complete SW 4860 and SW 4861 in the field agency they are originally placed, at the discretion of the field placement advisor, the student may request a new placement one (1) time only. Students at any time failing to meet the overall GPA of 2.5 will be given a probationary semester to raise their GPA to the minimum standard. Failure to comply with this policy will result in being dropped from the Social Work program.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation; a minimum of 41 of these is required within the major not counting the prerequisite courses totaling 18 semester hours. A total of 40 upper division credit hours is required for graduation from Weber State University (courses numbered 3000 and above).

### Advisement

Students accepted into the program are assigned to a faculty advisor for academic and professional advising. The faculty advisor assists students with course scheduling, academic counseling, and professional self-assessment. Students are required to see their faculty advisor at least one time per semester prior to registration. Call the Social Work/Gerontology office number, 801-626-6157, or the Department Chair, 801-626-6156, for more information or to schedule an appointment. (Also refer to the Department Advisor Referral List.)

### Admission Requirements

Declare a program of study (see Enrollment Services and Information). Satisfactory completion of the following is required prior to formal acceptance into the program:

WSU Writing Competency (Composition)\*

WSU Quantitative Literacy\*

WSU Information Literacy\*

60-63 semester graduation hours (or equivalent) including the prerequisite courses listed below for the Behavioral and Social Sciences, Human Development, and Social Work prerequisites. These courses must be completed with a grade of "C" or better and with a total GPA of 2.5 or better.

Students agree to abide by the National Association of Social Workers Code of Ethics.

**Note:**

*\* Refer to General Requirements on Degree Requirements*

## Courses Required Prior to Formal Acceptance to the Social Work Program

Behavioral and Social Science Prerequisites (9 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

PSY 1010 SS - Introductory Psychology **Credits: (3)**

SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)**

Human Development Prerequisite (3 credit hours)

ZOOL 1020 LS - Human Biology **Credits: (3)**

Note:

*Any transfer course in this area must contain only human biology content, courses with animal or plant content are not acceptable*

Social Work Prerequisites (6 credit hours)

SW 1010 SS - Introduction to Generalist Social Work **Credits: (3)**

SW 2100 SS - Human Behavior and the Social Environment I **Credits: (3)**

Note:

*ZOOL 1020 should be taken prior to or concurrently with SW 2100*

## Formal Admission to the Social Work Program

Formal applications for admission to the program will be considered during the semester the student is in the process of completing final prerequisites or anytime thereafter. Applications may be downloaded from the Department's website or obtained at the Social Work office (Social Science Building, room 140). The Admissions and Retention Committee will consider all applications and make one of the following recommendations:

Full admission to the program;

Admission to the program with contingencies;

Denial of admission to the program.

## General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. See specific requirements for the BA and BS under the major course requirements. The following courses for the Social Work prerequisite requirements will also fulfill general education requirements: SW 1010 SS - Introduction to Generalist Social Work;

ANTH 1000 SS/DV - Introduction to Anthropology; PSY 1010 SS - Introductory Psychology; SOC 1010 SS/DV - Introduction to Sociology; and ZOOL 1020 LS - Human Biology.

## Major Course Requirements for BS or BA Degree

*The following should be taken after completing the above prerequisites.*

Required Social Work Core Courses (38 credit hours)

- SW 2200 SS/DV - Issues in Diversity **Credits: (3)**
- SW 3100 - Human Behavior and the Social Environment II **Credits: (2)**
- SW 3200 - Child and Family Welfare **Credits: (2)**
- SW 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**
- SW 3600 - Social Statistics **Credits: (3)** (or equivalent)  
(Prerequisite – Quantitative Literacy. Must be completed prior to SW 4861)
- SW 3700 - Social Work Research **Credits: (3)** (It is recommended to take a Statistics course [SW 3600] prior to Research)
- SW 3900 - Social Work Methods, Values, and Ethics **Credits: (3)**
- SW 3910 - Social Work Practice I **Credits: (3)** (Make application for Social Service Field Experience prior to completing SW 3910)
- SW 3920 - Social Work Practice II **Credits: (3)**
- SW 3930 - Social Work Practice III **Credits: (3)**
- SW 4500 - Interventions for Populations at Risk **Credits: (3)**
- SW 4860 - Social Service Field Experience I **Credits: (4)**
- SW 4861 - Social Service Field Experience II **Credits: (4)**
- SW 4990 - Social Work Senior Seminar **Credits: (2)**

## Courses Required to fulfill the BS

*The following must be taken to qualify for a Bachelor of Science (BS) degree in Social Work*

- SW 3600 - Social Statistics **Credits: (3)**
- SW 3700 - Social Work Research **Credits: (3)**
- SW 4150 - DSM-5 **Credits: (3)**

And select one of the following

- HLTH 1020 LS - Science and Application of Human Nutrition **Credits: (3)**
- HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)**
- ZOOL 1020 LS - Human Biology **Credits: (3)**

Note:

*Courses taken to meet BS requirements may also be applied to fill general education requirements, program prerequisites and required Social Work core courses. SW 4150 - DSM-5 may NOT be counted by BS candidates as credit toward the 18 credit hours approved as an alternative to a traditional minor.*

*Additional science courses may be counted as electives or be applied to fill general education requirements.*

## Electives (Optional)

- SW 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**
- GERT 3000 - Death and Dying **Credits: (3)** or
- SW 3000 - Death and Dying **Credits: (3)**

GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)** or  
SW 3120 - Aging: Adaptation and Behavior **Credits: (3)**

GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)** or  
SW 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

SW 3800 - Writing in Social Work **Credits: (3)** (optional for BS in Social Work)  
SW 4140 - Perspectives on Drug Use and Substance Abuse **Credits: (3)**  
SW 4150 - DSM-5 **Credits: (3)** (optional for BA in Social Work)

GERT 4220 - Societal Responses to Aging **Credits: (3)** or  
SW 4220 - Societal Responses to Aging **Credits: (3)**

SW 4250 - Medical Social Work **Credits: (3)**  
SW 4600 - Social Work in Special Settings **Credits: (2-4)**

GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)** or  
SW 4650 - Retirement: Adjustment/Planning **Credits: (3)**

SW 4800 - Projects and Research **Credits: (1-3)**  
SW 4810 - Experimental Courses **Credits: (2-3)**  
SW 4830 - Directed Readings **Credits: (1-3)**  
SW 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (2-4)**

## **Courses Approved as an Alternative to a Traditional Minor**

As an alternative to a minor, a Social Work Major may choose to complete a minimum of 18 credits (generally the equivalent of six courses) from the following list of elective enrichment courses. Other courses not on this list may be approved to meet this requirement at the discretion of a student's faculty advisor with the consent of the Social Work faculty. At least six of these credits must be taken in Social Work. No more than six credits may be taken within a single discipline. Students are strongly encouraged to consult with their faculty advisor in selecting one of these options. Courses used to meet the minor alternative MUST be pre-approved by a faculty advisor.

### **Social Work (6 credit hours)**

SW 2920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)**  
SW 3000 - Death and Dying **Credits: (3)** \*  
SW 3120 - Aging: Adaptation and Behavior **Credits: (3)** \*  
SW 3320 - Ethnicity and Older Women in the American Society **Credits: (3)** \*  
SW 3800 - Writing in Social Work **Credits: (3)** (optional for BS in Social Work)  
SW 4140 - Perspectives on Drug Use and Substance Abuse **Credits: (3)**  
SW 4150 - DSM-5 **Credits: (3)** (optional for BA in Social Work)  
SW 4250 - Medical Social Work **Credits: (3)**  
SW 4600 - Social Work in Special Settings **Credits: (2-4)**  
SW 4650 - Retirement: Adjustment/Planning **Credits: (3)** \*  
SW 4800 - Projects and Research **Credits: (1-3)** (consent of department chair required)  
SW 4810 - Experimental Courses **Credits: (2-3)**  
SW 4830 - Directed Readings **Credits: (1-3)** (consent of department chair required)  
SW 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (2-4)**

Note:

\*Cross-listed with Gerontology (GERT)

## Anthropology

- ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**
- ANTH 3700 - Sex Roles: Past, Present and Future **Credits: (3)**
- ANTH 3900 - Magic, Shamanism and Religion **Credits: (3)**

## Communication

- COMM 3080 - Intercultural Communication **Credits: (3)** (prerequisite COMM 2110)

## Child and Family Studies

- CHF 3350 - Diverse Families **Credits: (3)**
- CHF 3500 - Young Children at Risk **Credits: (3)** (prerequisite CHF 1500)
- CHF 3550 - Parenting Education **Credits: (3)**
- CHF 3650 - Family Processes **Credits: (3)** (prerequisite CHF 2400, CHF 3350)
- CHF 4400 - The Family in Stress **Credits: (3)**

## Criminal Justice

- CJ 3040 - Community Policing **Credits: (3)**
- CJ 3060 - Corrections in the Community **Credits: (3)**
- CJ 3270 - Theories of Crime and Delinquency **Credits: (3)**
- CJ 3300 - Victimology **Credits: (3)**
- CJ 3400 - Drugs and Crime **Credits: (3)**

## Economics

- ECON 3410 - Women in the World Economy **Credits: (3)** (prerequisite ECON 2010)

## Gerontology

- GERT 3000 - Death and Dying **Credits: (3)** \*
- GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)** \*
- GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)** \*
- GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)** \*

Note:

\* *Cross-listed with Social Work (SW)*

## Health

- HLTH 3000 - Foundations of Health Promotion **Credits: (3)** (prerequisite HLTH 1030)
- HLTH 3400 - Substance Abuse Prevention **Credits: (3)**
- HLTH 3420 - Multicultural Health and Nutrition **Credits: (3)** (same as NUTR 3420)
- HLTH 3500 - Human Sexuality **Credits: (3)**

## Health Administrative Services

- HAS 3000 - The Health Care System **Credits: (3)**
- HAS 3150 - Community Health Agencies and Services **Credits: (3)**
- HAS 3190 - Cultural Diversity in Patient Education **Credits: (3)**

HAS 3260 - Health Care Administrative and Supervisory Theory **Credits: (3)** (prerequisite HAS 3000)  
HAS 4400 - Legal and Ethical Aspects of Health Administration **Credits: (3)** (prerequisite HAS 3000 & HAS 3260)  
HAS 4520 - Long-Term Care Administration **Credits: (2)** (prerequisite HAS 3000 & HAS 4400)

## Management

MGMT 3010 - Organizational Behavior and Management **Credits: (3)**  
MGMT 4400 - Advanced Organizational Behavior **Credits: (3)** (prerequisite MGMT 3010)

## Philosophy

PHIL 3350 - Medical Ethics **Credits: (3)**

## Political Science

POLS 3330 - American Political Thought **Credits: (3)**  
POLS 3630 - Identity Politics **Credits: (3)**  
POLS 3700 - Bureaucratic Politics **Credits: (3)**  
POLS 4600 - American Congress **Credits: (3)**  
POLS 4750 - Public Policy Analysis **Credits: (3)**

## Psychology

PSY 3000 - Child Psychology **Credits: (3)**  
PSY 3010 - Abnormal Psychology **Credits: (3)**  
PSY 3100 - Psychology of Diversity **Credits: (3)**  
PSY 3430 - Theories of Personality **Credits: (3)** (prerequisite PSY 1010)  
PSY 3460 - Social Psychology **Credits: (3)** (prerequisite PSY 1010)  
PSY 3500 - Cognition **Credits: (3)** (prerequisite PSY 1010)

## Sociology

SOC 3110 - Sociology of Family **Credits: (3)**  
SOC 3270 - Criminology **Credits: (3)** (prerequisite SOC 1010 or SOC 1020)  
SOC 3300 - Environment and Society **Credits: (3)**  
SOC 3410 - Sociology of Religion **Credits: (3)**  
SOC 3420 - Sociology of Education **Credits: (3)**  
SOC 3430 - Medicine and Healthcare in Society **Credits: (3)**

## Women's Studies

WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

# Gerontology (BIS)

**Grade Requirements:** A grade of "C" or better in courses used toward the minor/emphasis (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 17 credit hours.

## Course Requirements

Gerontology Courses Required (11 credit hours)

GERT 1010 SS - Introduction to Gerontology **Credits: (3)**

GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

GERT 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**

GERT 4860 - Introductory Field Practicum **Credits: (2)**

Gerontology Electives (6 credit hours)

*Select two courses from the following 5 courses*

GERT 2220 - Introduction to Social Gerontology **Credits: (3)**

GERT 3000 - Death and Dying **Credits: (3)**

GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**

GERT 4220 - Societal Responses to Aging **Credits: (3)**

GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)**

# Social Work (BIS)

*Refer to the Social Work (BIS) Bachelor of Integrated Studies section of this catalog for program requirements.*

**Grade Requirements:** Minimum grade of "C" is required in all courses toward and included in the Social Work emphasis (a grade of "C-" is not acceptable). In addition, an overall GPA for these courses of 2.50 must be maintained.

**Credit Hour Requirements:** Minimum of 19 credit hours.

## Course Requirements for BIS Emphasis

Social Work Courses Required (19 credit hours)

SW 1010 SS - Introduction to Generalist Social Work **Credits: (3)**

SW 2100 SS - Human Behavior and the Social Environment I **Credits: (3)**

SW 2200 SS/DV - Issues in Diversity **Credits: (3)**

SW 3100 - Human Behavior and the Social Environment II **Credits: (2)**

SW 3200 - Child and Family Welfare **Credits: (2)**

SW 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**

SW 3700 - Social Work Research **Credits: (3)**

# Gerontology Minor

**Grade Requirements:** A grade of "C" or better in courses used toward the minor/emphasis (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 17 credit hours.

## Course Requirements

Gerontology Courses Required (11 credit hours)

GERT 1010 SS - Introduction to Gerontology **Credits: (3)**

GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

GERT 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**

GERT 4860 - Introductory Field Practicum **Credits: (2)**

Gerontology Electives (6 credit hours)

*Select two courses from the following 5 courses*

GERT 2220 - Introduction to Social Gerontology **Credits: (3)**

GERT 3000 - Death and Dying **Credits: (3)**

GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**

GERT 4220 - Societal Responses to Aging **Credits: (3)**

GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)**

# Social Work Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

# Gerontology Non-degree Certification

**Grade Requirements:** A grade of "C" or better in courses used toward the minor/emphasis (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 17 credit hours.

## Course Requirements

Gerontology Courses Required (11 credit hours)

GERT 1010 SS - Introduction to Gerontology **Credits: (3)**

GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

GERT 3500 - Social Welfare & Gerontological Policy Development and Service **Credits: (3)**

GERT 4860 - Introductory Field Practicum **Credits: (2)**

Gerontology Electives (6 credit hours)

*Select two courses from the following 5 courses*

GERT 2220 - Introduction to Social Gerontology **Credits: (3)**

GERT 3000 - Death and Dying **Credits: (3)**

GERT 3120 - Aging: Adaptation and Behavior **Credits: (3)**

GERT 4220 - Societal Responses to Aging **Credits: (3)**

GERT 4650 - Retirement: Adjustment/Planning **Credits: (3)**

## Department of Sociology and Anthropology

**Department Chair:** Marjukka Ollilainen

**Location:** Social Science Building, Room 114

**Telephone Contact:** Belinda McElheny 801-626-6241

**Professors:** Brooke Arkush, Rosemary Conover, Huiying Hill, Ron Holt, Brenda Marsteller Kowalewski, Marjukka Ollilainen; **Associate Professors:** Pepper Glass, Robert Reynolds, Carla Trentelman; **Assistant Professors:** Robert Morris, Mark Stevenson, David Yoder

### Sociology

**Sociology Coordinator:** Marjukka Ollilainen (801) 626-6241

Sociology is the study of social life, social change, and the social causes and consequences of human behavior. Sociologists investigate the structure of groups, organizations, and societies, and how people interact within these contexts. Since all human behavior is social, the subject matter of sociology includes, but is not limited to, street crime and delinquency, corporate downsizing, how people express emotions, welfare or education reform, how families differ and flourish, divisions of ethnicity, gender and social class, religious cults, medicine, media, and other social phenomena. Because sociology addresses the most challenging issues of our time, it is a rapidly expanding field whose potential is increasingly tapped by those who craft policies and create programs. Few fields have such broad scope and relevance for research, theory, and application of knowledge. Sociology is a popular major for students planning futures in such professions as law, business, education, architecture, politics, public administration, urban planning and development, human services, and a myriad of other professions. It also provides a solid foundation for pursuing graduate degrees in related fields. Although a career as a sociologist requires a Master's Degree or PhD, an undergraduate education in sociology can be applied to almost any profession a student pursues.

### Interdisciplinary Minors

The Sociology Department participates in the Asian Studies, Ethnic Studies, European Studies, Legal Studies and Women's Studies Minor Programs and the Urban and Regional Planning Emphasis Program. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

### Anthropology

**Anthropology Coordinator:** Dr. Brooke Arkush, 801-626-7202

Anthropology takes a holistic approach to describing and explaining human differences and similarities around the world and throughout time. It looks at humans both culturally and biologically within an ecological context. It examines contemporary humans as well as those of the historic and prehistoric past and searches for patterns of human existence. Specialized fields include archaeology, linguistics, ethnology, and biological anthropology. Students are taught to

question and examine the significance of beliefs, attitudes and prejudices, and to understand the anthropological position of relativism and valuing cultural and biological variation. The program prepares students for a broad range of public and private sector employment in anthropology-related fields or to enter professional or graduate schools appropriate to their interests. Anthropology is an essential discipline in the 21st Century, contributing knowledge for successful living and working in our diverse human world.

### **Interdisciplinary Minors**

The Anthropology Program participates in the Asian Studies, Ethnic Studies, Environmental Studies, European Studies, Latin American Studies, Linguistics, and Women's Studies Minor Programs. Students who wish to enroll in one of these programs should indicate their desire to do so with the program coordinator who will help them work out a proper combination of courses to fit their particular needs. (See the Engaged Learning, Honors, and Interdisciplinary Programs section of this catalog.)

## **Archaeological Technician (AAS)**

### **Archaeological Technician**

*Director: Brooke Arkush*

**Telephone Contact:** (801) 626-7202

#### **Gainful Employment Disclosure**

Archaeology can be an emphasis within the anthropology major or minor, part of a Bachelor of Integrated Studies degree, or stand alone as an independent program. The program trains students for work as archaeological technicians, adding a vocational component to an academic discipline. Archaeology, with its modern emphases on scientific problem solving, an evolutionary perspective, and ecological theory, is also a valuable part of a student's science education.

**Grade Requirements:** A minimum grade of "C" in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** Minimum of 26 credit hours for the Institutional Certificate of Proficiency, which must include ENGL 1010 (3) or equivalent. Minimum of 63 credit hours for the Associate of Applied Science degree, which must include ENGL 1010 (3) (or equivalent), COMM 1020 (3), and MATH 1050 (3) and 9 additional credit hours of general education, including one course in each of the Humanities, Sciences, and Social Sciences areas.

### **General Education**

Refer to Degree Requirements for Associate of Applied Science degree requirements.

*Transferring students with Anthropology courses can transfer 9 hours of credit from an acceptable Anthropology program.*

### **Advisement**

All declared Archaeological Technician students are assigned to the Director of the Archaeological Technician program for advisement. Students are officially notified that they must be formally advised by the Director at least once a year with all contacts posted in their files to be maintained in the department. Contact with the Director is by appointment; undeclared students with questions should also contact the Director of the Archaeological Technician Program, Dr. Brooke Arkush, phone: (801) 626-7202 or the Department of Sociology and Anthropology, phone: (801) 626-6241.

## Major Course Requirements for AAS Degree

### Required Program Core Courses (38-40 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**  
ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**  
ANTH 2030 SS - Principles of Archaeology **Credits: (3)**  
ANTH 3100 - Prehistory of North America **Credits: (3)**  
ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**  
ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)** (*must complete 6 credit hours*)  
ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**  
ANTH 3600 - Culture Area Studies **Credits: (1-3)**  
ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**  
ENGL 3100 - Professional and Technical Writing **Credits: (3)** (Prerequisite: ENGL 2010)

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** and  
GEO 1115 - Physical Geology Lab **Credits: (1)**

SOC 3600 - Social Statistics **Credits: (3)**

### Support Courses

*Complete at least two of the following:*

ANTH 4200 - Anthropological Theory **Credits: (3)**  
GEO 3150 - Geomorphology **Credits: (4)**  
HIST 4110 - History of the American West to 1900 **Credits: (3)**

## Archaeological Technician Certificate of Proficiency

**Director:** Brooke Arkush

**Telephone Contact:** (801) 626-7202

Archaeology can be an emphasis within the anthropology major or minor, part of a Bachelor of Integrated Studies degree, or stand alone as an independent program. The program trains students for work as archaeological technicians, adding a vocational component to an academic discipline. Archaeology, with its modern emphases on scientific problem solving, an evolutionary perspective, and ecological theory, is also a valuable part of a student's science education.

**Grade Requirements:** A minimum grade of "C" in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** Minimum of 26 credit hours for the Institutional Certificate of Proficiency, which must include ENGL 1010 (3) or equivalent. Minimum of 63 credit hours for the Associate of Applied Science degree, which must include ENGL 1010 (3) (or equivalent), COMM 1020 (3), and MATH 1050 (3) and 9 additional credit hours of general education, including one course in each of the Humanities, Sciences, and Social Sciences areas.

### General Education

Refer to Degree Requirements for Associate of Applied Science degree requirements.

*Transferring students with an Anthropology Minor can transfer 3 hours of credit from an acceptable Anthropology program.*

## Advisement

All declared Archaeological Technician students are assigned to the Director of the Archaeological Technician program for advisement. Students are officially notified that they must be formally advised by the Director at least once a year with all contacts posted in their files to be maintained in the department. Contact with the Director is by appointment; undeclared students with questions should also contact the Director of the Archaeological Technician Program, Dr. Brooke Arkush, phone: (801) 626-7202 or the Department of Sociology and Anthropology, phone: (801) 626-6241.

## Course Requirements for Institutional Certificate

### Required Program Core Courses (21 credit hours)

- ANTH 2030 SS - Principles of Archaeology **Credits: (3)**
- ANTH 3100 - Prehistory of North America **Credits: (3)**
- ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**
- ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)** (*must complete 6 credit hours*)
- ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**
- ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**

### Support Courses

*Complete at least one of the following:*

- GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** and  
GEO 1115 - Physical Geology Lab **Credits: (1)**

- GEOG 1000 PS - Natural Environments of the Earth **Credits: (3)**

### Recommended Courses

*Students are encouraged to select one or two additional courses from the following:*

- ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**
- ENGL 3100 - Professional and Technical Writing **Credits: (3)** (Prerequisite: ENGL 2010)
- SOC 3600 - Social Statistics **Credits: (3)**

## Anthropology (BA)

### Anthropology (BA or BS)

**Program Prerequisite:** Not required.

**Minor:** Required

**Grade Requirements:** Minimum grade of "C" in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation, of which 40 must be upper division credit hours (courses numbered 3000 and above). A minimum of 36 Anthropology credit hours is required within the major.

*Transfer students who are majoring in Anthropology can transfer up to 18 hours from an acceptable Anthropology program. Only 9 of the transferred hours can be lower division.*

## Advisement

All Anthropology majors, minors, and BIS students should meet with a faculty advisor at least once a year. Undeclared students and those with general questions need to contact the current coordinator of Anthropology via the Sociology & Anthropology department office phone: (801) 626-6241.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the major or minor. New freshmen and transfer students admitted to WSU in good standing qualify for admission to this major.

## Core and General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses may be used to fulfill both general education and program requirements: ANTH SS/DV 1000, ANTH LS/DV 1020, ANTH HU/DV 1040, ANTH SS/DV 2010, and ANTH SS 2030. (See university policy on any limitations).

## Major Course Requirements for BS or BA Degree

Required Program Courses (12 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

ANTH 4200 - Anthropological Theory **Credits: (3)**

ANTH 4300 - Anthropological Research Methods **Credits: (3)**

SOC 3600 - Social Statistics **Credits: (3)** *or equivalent as approved by the program coordinator*

Note:

In addition, students must select one of the following two tracks to pursue.

## Language Courses Required to fulfill the BA

6 credit hours of foreign language

*and the following language arts courses*

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

ANTH 4830 - Readings and/or Projects **Credits: (1-3)**

*or refer to the Degree Requirements section in this catalog and complete Option 1 - Foreign Language listed under Requirements for Bachelor's Degrees.*

## General Anthropology Track

Four-Field Fundamentals Courses (6 credit hours)

Select two courses from the following

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)**

ANTH 2030 SS - Principles of Archaeology **Credits: (3)**

## Electives (18 credit hours)

*Select a minimum of 18 additional credit hours from the following*

- ANTH 1020 LS/DV - Biological Anthropology **Credits: (3) \***
- ANTH 1040 HU/DV - Language and Culture **Credits: (3) \***
- ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3) \***
- ANTH 2030 SS - Principles of Archaeology **Credits: (3) \***
- ANTH 2810 - Experimental Courses **Credits: (1-6)**
- ANTH 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-6)**
- ANTH 2950 - Elementary Anthropological Field Trip **Credits: (1-3)**
- ANTH 2990 - Special Topics in Anthropology **Credits: (1-3)**
- ANTH 3100 - Prehistory of North America **Credits: (3)**
- ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**
- ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)**
- ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**
- ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**
- ANTH 3600 - Culture Area Studies **Credits: (1-3)**
- ANTH 3700 - Sex Roles: Past, Present and Future **Credits: (3)**
- ANTH 3900 - Magic, Shamanism and Religion **Credits: (3)**
- ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**
- ANTH 4810 - Experimental Courses **Credits: (1-3)**
- ANTH 4830 - Readings and/or Projects **Credits: (1-3)**
- ANTH 4890 - Internship in Anthropology **Credits: (1-3)**
- ANTH 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- ANTH 4950 - Advanced Anthropological Field Trip **Credits: (1-3)**
- ANTH 4990 - Seminar in Anthropology **Credits: (1-3)**

Note:

*\* Course may not be used to fulfill both elective and four-field fundamental course requirements.*

## Archaeology Track, Anthropology (BA)

### Anthropology (BA or BS)

**Program Prerequisite:** Not required.

**Minor:** Required

**Grade Requirements:** Minimum grade of "C" in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation, of which 40 must be upper division credit hours (courses numbered 3000 and above). A minimum of 36 Anthropology credit hours is required within the major.

*Transfer students who are majoring in Anthropology can transfer up to 18 hours from an acceptable Anthropology program. Only 9 of the transferred hours can be lower division.*

### Advisement

All Anthropology majors, minors, and BIS students should meet with a faculty advisor at least once a year. Undeclared students and those with general questions need to contact the current coordinator of Anthropology via the Sociology & Anthropology department office phone: (801) 626-6241.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the major or minor. New freshmen and transfer students admitted to WSU in good standing qualify for admission to this major.

## Core and General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses may be used to fulfill both general education and program requirements: ANTH SS/DV 1000, ANTH LS/DV 1020, ANTH HU/DV 1040, ANTH SS/DV 2010, and ANTH SS 2030. (See university policy on any limitations).

## Major Course Requirements for BS or BA Degree

Required Program Courses (12 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

ANTH 4200 - Anthropological Theory **Credits: (3)**

ANTH 4300 - Anthropological Research Methods **Credits: (3)**

SOC 3600 - Social Statistics **Credits: (3)** or equivalent as approved by the program coordinator

Note:

In addition, students must select one of the following two tracks to pursue.

## Language Courses Required to fulfill the BA

6 credit hours of foreign language

*and the following language arts courses*

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

ANTH 4830 - Readings and/or Projects **Credits: (1-3)**

*or refer to the Degree Requirements section in this catalog and complete Option 1 - Foreign Language listed under Requirements for Bachelor's Degrees.*

## Archaeology Track

Core Courses (24 credit hours)

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**

ANTH 2030 SS - Principles of Archaeology **Credits: (3)**

ANTH 3100 - Prehistory of North America **Credits: (3)**

ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**

ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)** (must complete 6 credit hours)

ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**

ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**

Electives (must complete a minimum of 3 hours)

*Must select one of the following.*

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** and

GEO 1115 - Physical Geology Lab **Credits: (1)**

ANTH 4890 - Internship in Anthropology **Credits: (1-3)**

## Recommended

ANTH 3600 - Culture Area Studies **Credits: (1-3)**

ENGL 3100 - Professional and Technical Writing **Credits: (3)** (Prerequisite: ENGL 2010)

GEO 3150 - Geomorphology **Credits: (4)**

HIST 4110 - History of the American West to 1900 **Credits: (3)**

Note:

*Strongly recommended additional skills for all majors: foreign language & computer skills.*

# Anthropology (BS)

## Anthropology (BA or BS)

**Program Prerequisite:** Not required.

**Minor:** Required

**Grade Requirements:** Minimum grade of "C" in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation, of which 40 must be upper division credit hours (courses numbered 3000 and above). A minimum of 36 Anthropology credit hours is required within the major.

*Transfer students who are majoring in Anthropology can transfer up to 18 hours from an acceptable Anthropology program. Only 9 of the transferred hours can be lower division.*

## Advisement

All Anthropology majors, minors, and BIS students should meet with a faculty advisor at least once a year. Undeclared students and those with general questions need to contact the current coordinator of Anthropology via the Sociology & Anthropology department office phone: (801) 626-6241.

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the major or minor. New freshmen and transfer students admitted to WSU in good standing qualify for admission to this major.

## Core and General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses may be used to fulfill both general education and program requirements: ANTH SS/DV 1000, ANTH LS/DV 1020, ANTH HU/DV 1040, ANTH SS/DV 2010, and ANTH SS 2030. (See university policy on any limitations).

## Major Course Requirements for BS or BA Degree

### Required Program Courses (12 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

ANTH 4200 - Anthropological Theory **Credits: (3)**

ANTH 4300 - Anthropological Research Methods **Credits: (3)**

SOC 3600 - Social Statistics **Credits: (3)** or equivalent as approved by the program coordinator

Note:

In addition, students must select one of the following two tracks to pursue.

## General Anthropology Track

### Four-Field Fundamentals Courses (6 credit hours)

Select two courses from the following

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)**

ANTH 2030 SS - Principles of Archaeology **Credits: (3)**

### Electives (18 credit hours)

Select a minimum of 18 additional credit hours from the following

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)** \*

ANTH 1040 HU/DV - Language and Culture **Credits: (3)** \*

ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)** \*

ANTH 2030 SS - Principles of Archaeology **Credits: (3)** \*

ANTH 2810 - Experimental Courses **Credits: (1-6)**

ANTH 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-6)**

ANTH 2950 - Elementary Anthropological Field Trip **Credits: (1-3)**

ANTH 2990 - Special Topics in Anthropology **Credits: (1-3)**

ANTH 3100 - Prehistory of North America **Credits: (3)**

ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**

ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)**

ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**

ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**

ANTH 3600 - Culture Area Studies **Credits: (1-3)**

ANTH 3700 - Sex Roles: Past, Present and Future **Credits: (3)**

ANTH 3900 - Magic, Shamanism and Religion **Credits: (3)**

ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**

ANTH 4810 - Experimental Courses **Credits: (1-3)**

ANTH 4830 - Readings and/or Projects **Credits: (1-3)**

ANTH 4890 - Internship in Anthropology **Credits: (1-3)**

ANTH 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**

ANTH 4950 - Advanced Anthropological Field Trip **Credits: (1-3)**

ANTH 4990 - Seminar in Anthropology **Credits: (1-3)**

Note: \* Course may not be used to fulfill both elective and four-field fundamental course requirements.

# Archaeology Track, Anthropology (BS)

## Anthropology (BA or BS)

**Program Prerequisite:** Not required.

**Minor:** Required

**Grade Requirements:** Minimum grade of "C" in courses counted toward fulfilling the major (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation, of which 40 must be upper division credit hours (courses numbered 3000 and above). A minimum of 36 Anthropology credit hours is required within the major.

*Transfer students who are majoring in Anthropology can transfer up to 18 hours from an acceptable Anthropology program. Only 9 of the transferred hours can be lower division.*

### Advisement

All Anthropology majors, minors, and BIS students should meet with a faculty advisor at least once a year. Undeclared students and those with general questions need to contact the current coordinator of Anthropology via the Sociology & Anthropology department office phone: (801) 626-6241.

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the major or minor. New freshmen and transfer students admitted to WSU in good standing qualify for admission to this major.

### Core and General Education

Refer to Degree Requirements for either Bachelor of Science or Bachelor of Arts requirements. The following courses may be used to fulfill both general education and program requirements: ANTH SS/DV 1000, ANTH LS/DV 1020, ANTH HU/DV 1040, ANTH SS/DV 2010, and ANTH SS 2030. (See university policy on any limitations).

### Major Course Requirements for BS or BA Degree

Required Program Courses (12 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

ANTH 4200 - Anthropological Theory **Credits: (3)**

ANTH 4300 - Anthropological Research Methods **Credits: (3)**

SOC 3600 - Social Statistics **Credits: (3)** *or equivalent as approved by the program coordinator*

Note:

In addition, students must select one of the following two tracks to pursue.

## Archaeology Track

Core Courses (24 credit hours)

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**

ANTH 2030 SS - Principles of Archaeology **Credits: (3)**  
ANTH 3100 - Prehistory of North America **Credits: (3)**  
ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**  
ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)** (must complete 6 credit hours)  
ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**  
ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**

Electives (must complete a minimum of 3 hours)

Must select one of the following.

GEO 1110 PS - Dynamic Earth: Physical Geology **Credits: (3)** and  
GEO 1115 - Physical Geology Lab **Credits: (1)**

ANTH 4890 - Internship in Anthropology **Credits: (1-3)**

Recommended

ANTH 3600 - Culture Area Studies **Credits: (1-3)**  
ENGL 3100 - Professional and Technical Writing **Credits: (3)** (Prerequisite: ENGL 2010)  
GEO 3150 - Geomorphology **Credits: (4)**  
HIST 4110 - History of the American West to 1900 **Credits: (3)**

Note:

*Strongly recommended additional skills for all majors: foreign language & computer skills.*

Suggested Course Sequence

## Sociology (BS)

**Program Prerequisite:** Not required for the Sociology major. Sociology Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

**Minor:** Required

**Grade Requirements:** A minimum grade of "C" in courses counted toward the major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation, of which 40 must be upper division credit hours (courses numbered 3000 and above). A minimum of 36 Sociology credit hours are required for the major.

*Transfer students who are majoring in Sociology can transfer up to 18 hours from an acceptable Sociology program. Only 9 of the transferred hours can be lower division.*

### Advisement

Sociology majors are assigned to a faculty advisor and are encouraged to meet with that advisor annually for course and program advisement. Call 801-626-6241 for additional information. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

## Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the Sociology major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education). (Also refer to the Department Advisor Referral List.)

## General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following course will fulfill General Education, Diversity and program requirements: SOC 1010.

## Major Course Requirements for BS Degree

Required Program Courses (18 credit hours)

- SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)**
- SOC 3030 - Classical Sociological Theory **Credits: (3)**
- SOC 3600 - Social Statistics **Credits: (3)**
- SOC 3660 - Sociological Research **Credits: (3)**
- SOC 4030 - Contemporary Sociological Theory **Credits: (3)**
- SOC 4900 - Senior Capstone Course **Credits: (3)**

Sociology Electives (select 6 courses, 18 credit hours, only one of which can be lower division)

- SOC 1020 SS/DV - Social Problems **Credits: (3)**
- SOC 2810 - Experimental Course Offerings **Credits: (2-3)**
- SOC 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- SOC 3000 - Self and Society **Credits: (3)**
- SOC 3010 - Social Inequality **Credits: (3)**
- SOC 3110 - Sociology of Family **Credits: (3)**
- SOC 3130 - Sociology of Gender **Credits: (3)**
- SOC 3250 - Deviance and Social Control **Credits: (3)**
- SOC 3260 - Juvenile Delinquency **Credits: (3)**
- SOC 3270 - Criminology **Credits: (3)**
- SOC 3300 - Environment and Society **Credits: (3)**
- SOC 3400 - Social Change **Credits: (3)**
- SOC 3410 - Sociology of Religion **Credits: (3)**
- SOC 3420 - Sociology of Education **Credits: (3)**
- SOC 3430 - Medicine and Healthcare in Society **Credits: (3)**
- SOC 3550 - Organizations in Society **Credits: (3)**
- SOC 3840 - Cities and Urban Life **Credits: (3)**
- SOC 3850 - Race & Ethnicity **Credits: (3)**
- SOC 4220 - Life in a Consumer Society **Credits: (3)**
- SOC 4270 - Sociology of Law **Credits: (3)**
- SOC 4410 - Sociology of Globalization **Credits: (3)**
- SOC 4550 - Sociology of Work **Credits: (3)**
- SOC 4810 - Experimental Course Offerings **Credits: (2-3)**
- SOC 4830 - Readings and/or Projects **Credits: (1-3)**
- SOC 4890 - Internship **Credits: (1-6)**
- SOC 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- SOC 4990 - Seminar in Sociology **Credits: (3)**

Deviance and Criminology Track

*If a student desires to focus on Deviance and Criminology within the sociology major, the student must take three courses (9 elective credit hours) from the following courses:*

- SOC 3250 - Deviance and Social Control **Credits: (3)**
- SOC 3260 - Juvenile Delinquency **Credits: (3)**
- SOC 3270 - Criminology **Credits: (3)**
- SOC 4270 - Sociology of Law **Credits: (3)**

Note:

Sociology Teaching Majors are also required to take SOC 3420, HIST 4500, and COMM 1020 in addition to the courses required by the Teacher Education Program.

## Sociology Teaching (BS)

**Program Prerequisite:** Not required for the Sociology major. Sociology Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education).

**Minor:** Required

**Grade Requirements:** A minimum grade of "C" in courses counted toward the major (a grade of "C-" is not acceptable). Also refer to the general grade requirements for graduation.

**Credit Hour Requirements:** A total of 120 credit hours is required for graduation, of which 40 must be upper division credit hours (courses numbered 3000 and above). A minimum of 36 Sociology credit hours are required for the major.

*Transfer students who are majoring in Sociology can transfer up to 18 hours from an acceptable Sociology program. Only 9 of the transferred hours can be lower division.*

### Advisement

Sociology majors are assigned to a faculty advisor and are encouraged to meet with that advisor annually for course and program advisement. Call 801-626-6241 for additional information. Teaching majors are encouraged to also consult with advisors in the Jerry and Vickie Moyes College of Education (call 801-626-6269).

### Admission Requirements

Declare your program of study (see Enrollment Services and Information). There are no special admission or application requirements for the Sociology major. Teaching majors must meet the Teacher Education admission and licensure requirements (see Department of Teacher Education). (Also refer to the Department Advisor Referral List.)

### General Education

Refer to Degree Requirements for Bachelor of Science requirements. The following course will fulfill General Education, Diversity and program requirements: SOC 1010.

### Major Course Requirements for BS Degree

Required Program Courses (18 credit hours)

- SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)**
- SOC 3030 - Classical Sociological Theory **Credits: (3)**
- SOC 3600 - Social Statistics **Credits: (3)**
- SOC 3660 - Sociological Research **Credits: (3)**
- SOC 4030 - Contemporary Sociological Theory **Credits: (3)**
- SOC 4900 - Senior Capstone Course **Credits: (3)**

Sociology Electives (select 6 courses, 18 credit hours, only one of which can be lower division)

- SOC 1020 SS/DV - Social Problems **Credits: (3)**
- SOC 2810 - Experimental Course Offerings **Credits: (2-3)**
- SOC 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- SOC 3000 - Self and Society **Credits: (3)**
- SOC 3010 - Social Inequality **Credits: (3)**
- SOC 3110 - Sociology of Family **Credits: (3)**
- SOC 3130 - Sociology of Gender **Credits: (3)**
- SOC 3250 - Deviance and Social Control **Credits: (3)**
- SOC 3260 - Juvenile Delinquency **Credits: (3)**
- SOC 3270 - Criminology **Credits: (3)**
- SOC 3300 - Environment and Society **Credits: (3)**
- SOC 3400 - Social Change **Credits: (3)**
- SOC 3410 - Sociology of Religion **Credits: (3)**
- SOC 3420 - Sociology of Education **Credits: (3)**
- SOC 3430 - Medicine and Healthcare in Society **Credits: (3)**
- SOC 3550 - Organizations in Society **Credits: (3)**
- SOC 3840 - Cities and Urban Life **Credits: (3)**
- SOC 3850 - Race & Ethnicity **Credits: (3)**
- SOC 4220 - Life in a Consumer Society **Credits: (3)**
- SOC 4270 - Sociology of Law **Credits: (3)**
- SOC 4410 - Sociology of Globalization **Credits: (3)**
- SOC 4550 - Sociology of Work **Credits: (3)**
- SOC 4810 - Experimental Course Offerings **Credits: (2-3)**
- SOC 4830 - Readings and/or Projects **Credits: (1-3)**
- SOC 4890 - Internship **Credits: (1-6)**
- SOC 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- SOC 4990 - Seminar in Sociology **Credits: (3)**

#### Deviance and Criminology Track

*If a student desires to focus on Deviance and Criminology within the sociology major, the student must take three courses (9 elective credit hours) from the following courses:*

- SOC 3250 - Deviance and Social Control **Credits: (3)**
- SOC 3260 - Juvenile Delinquency **Credits: (3)**
- SOC 3270 - Criminology **Credits: (3)**
- SOC 4270 - Sociology of Law **Credits: (3)**

Note:

Sociology Teaching Majors are also required to take SOC 3420, HIST 4500, and COMM 1020 in addition to the courses required by the Teacher Education Program.

# Anthropology (BIS)

## Anthropology (Minor and BIS)

**Grade Requirements:** Minimum grade of "C" in courses counted toward fulfilling the minor (a grade of "C-" is not acceptable) and an overall GPA of 2.00.

**Credit Hour Requirements:** Minimum of 18 credit hours.

*Transferring students with an Anthropology Minor can transfer 9 hours of credit from an acceptable Anthropology program.*

### Advisement

All Anthropology majors, minors, and BIS students should meet with a faculty advisor at least once a year. Undeclared students and those with general questions need to contact the current coordinator of Anthropology via the Sociology & Anthropology department office phone: (801) 626-6241.

### Course Requirements for Minor and BIS Emphasis

Required Program Courses (6 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

ANTH 4200 - Anthropological Theory **Credits: (3)**

Four-Field Fundamentals Courses (6 credit hours)

*Select two from the following*

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)**

ANTH 2030 SS - Principles of Archaeology **Credits: (3)**

Electives (6 credit hours)

*Select a minimum of 6 additional credit hours from the following*

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)** \*

ANTH 1040 HU/DV - Language and Culture **Credits: (3)** \*

ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)** \*

ANTH 2030 SS - Principles of Archaeology **Credits: (3)** \*

ANTH 2810 - Experimental Courses **Credits: (1-6)**

ANTH 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-6)**

ANTH 2950 - Elementary Anthropological Field Trip **Credits: (1-3)**

ANTH 2990 - Special Topics in Anthropology **Credits: (1-3)**

ANTH 3100 - Prehistory of North America **Credits: (3)**

ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**

ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)**

ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**

ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**

ANTH 3600 - Culture Area Studies **Credits: (1-3)**

ANTH 3700 - Sex Roles: Past, Present and Future **Credits: (3)**

ANTH 3900 - Magic, Shamanism and Religion **Credits: (3)**

ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**

ANTH 4300 - Anthropological Research Methods **Credits: (3)**

ANTH 4810 - Experimental Courses **Credits: (1-3)**  
ANTH 4830 - Readings and/or Projects **Credits: (1-3)**  
ANTH 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
ANTH 4950 - Advanced Anthropological Field Trip **Credits: (1-3)**  
ANTH 4990 - Seminar in Anthropology **Credits: (1-3)**

Note:

*\*Course may not be used to fulfill both elective and four-field fundamental course requirements.*

*Strongly recommended skills for minors: foreign language, computer, and statistics.*

## Sociology (BIS)

**Grade Requirements:** A minimum grade of "C" in courses counted toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 18 credit hours.

*Transferring students with a Sociology Minor can transfer 9 hours of credit from an acceptable Sociology program.*

*Students who select the Sociology Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

### Course Requirements for Minor

Sociology Courses Required (9 credit hours)

SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)** or  
SOC 1020 SS/DV - Social Problems **Credits: (3)**

SOC 3030 - Classical Sociological Theory **Credits: (3)**  
SOC 3660 - Sociological Research **Credits: (3)**

Sociology Electives (select three courses, 9 credit hours, only one of which can be lower division)

SOC 1020 SS/DV - Social Problems **Credits: (3)**  
SOC 2810 - Experimental Course Offerings **Credits: (2-3)**  
SOC 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
SOC 3000 - Self and Society **Credits: (3)**  
SOC 3010 - Social Inequality **Credits: (3)**  
SOC 3110 - Sociology of Family **Credits: (3)**  
SOC 3130 - Sociology of Gender **Credits: (3)**  
SOC 3250 - Deviance and Social Control **Credits: (3)**  
SOC 3260 - Juvenile Delinquency **Credits: (3)**  
SOC 3270 - Criminology **Credits: (3)**  
SOC 3300 - Environment and Society **Credits: (3)**  
SOC 3400 - Social Change **Credits: (3)**  
SOC 3410 - Sociology of Religion **Credits: (3)**  
SOC 3420 - Sociology of Education **Credits: (3)**  
SOC 3430 - Medicine and Healthcare in Society **Credits: (3)**  
SOC 3550 - Organizations in Society **Credits: (3)**  
SOC 3600 - Social Statistics **Credits: (3)**  
SOC 3840 - Cities and Urban Life **Credits: (3)**

SOC 3850 - Race & Ethnicity **Credits: (3)**  
SOC 4030 - Contemporary Sociological Theory **Credits: (3)**  
SOC 4220 - Life in a Consumer Society **Credits: (3)**  
SOC 4270 - Sociology of Law **Credits: (3)**  
SOC 4410 - Sociology of Globalization **Credits: (3)**  
SOC 4550 - Sociology of Work **Credits: (3)**  
SOC 4810 - Experimental Course Offerings **Credits: (2-3)**  
SOC 4830 - Readings and/or Projects **Credits: (1-3)**  
SOC 4890 - Internship **Credits: (1-6)**  
SOC 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
SOC 4990 - Seminar in Sociology **Credits: (3)**

#### Deviance and Criminology Track

*If a student desires to focus on Deviance and Criminology within the sociology minor/BIS, the student must take two courses (6 elective credit hours) from the following courses:*

SOC 3250 - Deviance and Social Control **Credits: (3)**  
SOC 3260 - Juvenile Delinquency **Credits: (3)**  
SOC 3270 - Criminology **Credits: (3)**  
SOC 4270 - Sociology of Law **Credits: (3)**

Note:

*Sociology Teaching Minors are also required to take SOC 3420 and HIST 4500 in addition to the courses required by the Teacher Education Program.*

## Anthropology Minor

### Anthropology (Minor and BIS)

**Grade Requirements:** Minimum grade of "C" in courses counted toward fulfilling the minor (a grade of "C-" is not acceptable) and an overall GPA of 2.00.  
**Credit Hour Requirements:** Minimum of 18 credit hours.

*Transferring students with an Anthropology Minor can transfer 9 hours of credit from an acceptable Anthropology program.*

#### Advisement

All Anthropology majors, minors, and BIS students should meet with a faculty advisor at least once a year. Undeclared students and those with general questions need to contact the current coordinator of Anthropology via the Sociology & Anthropology department office phone: (801) 626-6241.

#### Course Requirements for Minor and BIS Emphasis

Required Program Courses (6 credit hours)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**  
ANTH 4200 - Anthropological Theory **Credits: (3)**

Four-Field Fundamentals Courses (6 credit hours)

*Select two from the following*

- ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**
- ANTH 1040 HU/DV - Language and Culture **Credits: (3)**
- ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)**
- ANTH 2030 SS - Principles of Archaeology **Credits: (3)**

Electives (6 credit hours)

*Select a minimum of 6 additional credit hours from the following*

- ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)** \*
- ANTH 1040 HU/DV - Language and Culture **Credits: (3)** \*
- ANTH 2010 SS/DV - Peoples and Cultures of the World **Credits: (3)** \*
- ANTH 2030 SS - Principles of Archaeology **Credits: (3)** \*
- ANTH 2810 - Experimental Courses **Credits: (1-6)**
- ANTH 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-6)**
- ANTH 2950 - Elementary Anthropological Field Trip **Credits: (1-3)**
- ANTH 2990 - Special Topics in Anthropology **Credits: (1-3)**
- ANTH 3100 - Prehistory of North America **Credits: (3)**
- ANTH 3200 - Archaeology of Early Civilizations **Credits: (3)**
- ANTH 3300 - Archaeological Field Techniques **Credits: (3-6)**
- ANTH 3400 - Archaeological Laboratory Techniques **Credits: (3)**
- ANTH 3500 - Advanced Cultural Anthropology **Credits: (3)**
- ANTH 3600 - Culture Area Studies **Credits: (1-3)**
- ANTH 3700 - Sex Roles: Past, Present and Future **Credits: (3)**
- ANTH 3900 - Magic, Shamanism and Religion **Credits: (3)**
- ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management **Credits: (3)**
- ANTH 4300 - Anthropological Research Methods **Credits: (3)**
- ANTH 4810 - Experimental Courses **Credits: (1-3)**
- ANTH 4830 - Readings and/or Projects **Credits: (1-3)**
- ANTH 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**
- ANTH 4950 - Advanced Anthropological Field Trip **Credits: (1-3)**
- ANTH 4990 - Seminar in Anthropology **Credits: (1-3)**

Note:

*\*Course may not be used to fulfill both elective and four-field fundamental course requirements.*

*Strongly recommended skills for minors: foreign language, computer, and statistics.*

## Sociology Minor

**Grade Requirements:** A minimum grade of "C" in courses counted toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 18 credit hours.

*Transferring students with a Sociology Minor can transfer 9 hours of credit from an acceptable Sociology program.*

*Students who select the Sociology Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

## Course Requirements for Minor

### Sociology Courses Required (9 credit hours)

SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)** or  
SOC 1020 SS/DV - Social Problems **Credits: (3)**

SOC 3030 - Classical Sociological Theory **Credits: (3)**  
SOC 3660 - Sociological Research **Credits: (3)**

### Sociology Electives (select three courses, 9 credit hours, only one of which can be lower division)

SOC 1020 SS/DV - Social Problems **Credits: (3)**  
SOC 2810 - Experimental Course Offerings **Credits: (2-3)**  
SOC 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
SOC 3000 - Self and Society **Credits: (3)**  
SOC 3010 - Social Inequality **Credits: (3)**  
SOC 3110 - Sociology of Family **Credits: (3)**  
SOC 3130 - Sociology of Gender **Credits: (3)**  
SOC 3250 - Deviance and Social Control **Credits: (3)**  
SOC 3260 - Juvenile Delinquency **Credits: (3)**  
SOC 3270 - Criminology **Credits: (3)**  
SOC 3300 - Environment and Society **Credits: (3)**  
SOC 3400 - Social Change **Credits: (3)**  
SOC 3410 - Sociology of Religion **Credits: (3)**  
SOC 3420 - Sociology of Education **Credits: (3)**  
SOC 3430 - Medicine and Healthcare in Society **Credits: (3)**  
SOC 3550 - Organizations in Society **Credits: (3)**  
SOC 3600 - Social Statistics **Credits: (3)**  
SOC 3840 - Cities and Urban Life **Credits: (3)**  
SOC 3850 - Race & Ethnicity **Credits: (3)**  
SOC 4030 - Contemporary Sociological Theory **Credits: (3)**  
SOC 4220 - Life in a Consumer Society **Credits: (3)**  
SOC 4270 - Sociology of Law **Credits: (3)**  
SOC 4410 - Sociology of Globalization **Credits: (3)**  
SOC 4550 - Sociology of Work **Credits: (3)**  
SOC 4810 - Experimental Course Offerings **Credits: (2-3)**  
SOC 4830 - Readings and/or Projects **Credits: (1-3)**  
SOC 4890 - Internship **Credits: (1-6)**  
SOC 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
SOC 4990 - Seminar in Sociology **Credits: (3)**

### Deviance and Criminology Track

*If a student desires to focus on Deviance and Criminology within the sociology minor/BIS, the student must take two courses (6 elective credit hours) from the following courses:*

SOC 3250 - Deviance and Social Control **Credits: (3)**  
SOC 3260 - Juvenile Delinquency **Credits: (3)**  
SOC 3270 - Criminology **Credits: (3)**  
SOC 4270 - Sociology of Law **Credits: (3)**

### Note:

*Sociology Teaching Minors are also required to take SOC 3420 and HIST 4500 in addition to the courses required by the Teacher Education Program.*

# Sociology Teaching Minor

**Grade Requirements:** A minimum grade of "C" in courses counted toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** Minimum of 18 credit hours.

*Transferring students with a Sociology Minor can transfer 9 hours of credit from an acceptable Sociology program.*

*Students who select the Sociology Teaching Minor must satisfy the Teacher Education admission and licensure requirements (see Department of Teacher Education).*

## Course Requirements for Minor

Sociology Courses Required (9 credit hours)

SOC 1010 SS/DV - Introduction to Sociology **Credits: (3)** or  
SOC 1020 SS/DV - Social Problems **Credits: (3)**

SOC 3030 - Classical Sociological Theory **Credits: (3)**  
SOC 3660 - Sociological Research **Credits: (3)**

Sociology Electives (select three courses, 9 credit hours, only one of which can be lower division)

SOC 1020 SS/DV - Social Problems **Credits: (3)**  
SOC 2810 - Experimental Course Offerings **Credits: (2-3)**  
SOC 2920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
SOC 3000 - Self and Society **Credits: (3)**  
SOC 3010 - Social Inequality **Credits: (3)**  
SOC 3110 - Sociology of Family **Credits: (3)**  
SOC 3130 - Sociology of Gender **Credits: (3)**  
SOC 3250 - Deviance and Social Control **Credits: (3)**  
SOC 3260 - Juvenile Delinquency **Credits: (3)**  
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SOC 3300 - Environment and Society **Credits: (3)**  
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SOC 3550 - Organizations in Society **Credits: (3)**  
SOC 3600 - Social Statistics **Credits: (3)**  
SOC 3840 - Cities and Urban Life **Credits: (3)**  
SOC 3850 - Race & Ethnicity **Credits: (3)**  
SOC 4030 - Contemporary Sociological Theory **Credits: (3)**  
SOC 4220 - Life in a Consumer Society **Credits: (3)**  
SOC 4270 - Sociology of Law **Credits: (3)**  
SOC 4410 - Sociology of Globalization **Credits: (3)**  
SOC 4550 - Sociology of Work **Credits: (3)**  
SOC 4810 - Experimental Course Offerings **Credits: (2-3)**  
SOC 4830 - Readings and/or Projects **Credits: (1-3)**  
SOC 4890 - Internship **Credits: (1-6)**  
SOC 4920 - Short Courses, Workshops, Institutes, and Special Programs **Credits: (1-3)**  
SOC 4990 - Seminar in Sociology **Credits: (3)**

## Deviance and Criminology Track

*If a student desires to focus on Deviance and Criminology within the sociology minor/BIS, the student must take two courses (6 elective credit hours) from the following courses:*

SOC 3250 - Deviance and Social Control **Credits: (3)**

SOC 3260 - Juvenile Delinquency **Credits: (3)**

SOC 3270 - Criminology **Credits: (3)**

SOC 4270 - Sociology of Law **Credits: (3)**

Note:

*Sociology Teaching Minors are also required to take SOC 3420 and HIST 4500 in addition to the courses required by the Teacher Education Program.*

## Anthropology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Sociology Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Military Science (Army ROTC)

**Chair:** Lieutenant Colonel Jason M. Nierman

**Location:** Annex 11/Mail Code 4501

**Telephone Contact:** 801-626-6518; FAX 801-626-7651

Military Science (Army ROTC) focuses on leadership development. Students pursue the major of their choice while studying Military Science, and graduate with the ability to function effectively as leaders. Upon completion of Army ROTC and graduation from college students become commissioned officers in the active Army, Army Reserve or National Guard.

Instructors, uniforms and equipment are provided at no cost to the student or the University. All contracted students receive \$300- \$500 per month (\$3,000-\$5,000 per academic year). Army ROTC also covers the cost of tuition and fees for Army ROTC scholarship students and provides a book allowance of \$1,200 per academic year.

**The Margin of Difference.** Army ROTC cadets learn to be leaders and receive hands-on experience in managing physical, financial, and human resources. They develop self-confidence and superior decision-making skills. Employers value these leadership qualities and recognize associated potential.

**Four-Year Program.** The traditional Army ROTC program covers four years consistent with normal undergraduate progression (freshman-senior). The four-year program is divided into two parts called the basic course and the advanced course. The basic course is usually taken during the first two years of college. It covers subjects such as land navigation, leadership development, small unit tactics, weapons marksmanship and military history. This program is designed for high performing students who wish to try Military Science without obligation, while enhancing their leadership skills and self-confidence. Upon successful completion of the basic course, students are eligible to enter the advanced course.

Advanced course requirements are normally completed during the junior and senior years. The advanced course further develops and refines leadership competencies, and qualifies the student for a commission in the United States Army. Advanced course students receive a \$450 (Junior year) - \$500 (Senior year) per month tax-free subsistence allowance [\$4,500 (Junior year) - \$5,000 (Senior year) per year].

**Two-Year Program.** This is a special program for junior and community college transfers or students who did not take Army ROTC during their first two years of college. To enter the two year program, a student first participates in a four-week leadership training course. This usually takes place between the sophomore and junior year. Students are paid for attending this instruction, have the opportunity to compete for two-year scholarships, and may receive academic credit.

**Scholarships.** Army ROTC provides numerous scholarship opportunities. All WSU contracted cadets receive some form of financial assistance, which can include up to 100% tuition, fees, books and other costs paid. High school seniors may qualify for the four-year Army ROTC scholarship. College students may qualify for four, three, or two-year scholarships. Students may choose from two different options. The first option pays the cost of tuition and fees and a flat rate for textbooks and classroom supplies. The second option pays the students up to \$10,000 for housing and the same flat rate for textbooks and classroom supplies. The Green to Gold scholarship allows Soldiers serving on active duty to leave the Army early and attend college/ROTC full-time while receiving scholarship benefits. Other scholarship opportunities include: room and book grants and the Western Undergraduate Exchange (WUE) program. Nursing students qualify for additional incentives. Call or visit the Department of Military Science for details.

**Placement Credit For Veterans.** Veterans may qualify for advanced course placement based on prior military experience. Concurrently, they can take full advantage of veteran's benefits and receive financial aid for Army ROTC participation.

**Simultaneous Membership Program (SMP).** This program is available to cadets who wish to serve in the Army Reserve or National Guard while attending college and pursuing a commission through Army ROTC. SMP students are eligible to receive Reserve drill pay, tuition assistance, other monetary incentives, and \$350-\$500 per month (\$3,000-\$5,000 per academic year) from Army ROTC. Call or visit the Department of Military Science for details.

**Leave of Absence.** Students, including scholarship recipients, who wish to take a leave of absence to serve a mission for their church can do so conveniently before the start of the Junior year.

**Commission Requirements.** In order to qualify for a commission as a Second Lieutenant in the United States Army, each student must:

- Complete all required Military Science instruction while attending college as a full-time student, and obtain a baccalaureate or higher degree prior to age 31 (age waiver possible for qualified students).
- Meet medical and physical fitness standards.
- Be a U.S. citizen.
- Successfully complete the Leadership Development and Assessment Course.
- Be recommended by the Professor of Military Science.

**Service Obligation.** There is no military service obligation for basic course students, unless on scholarship. Advanced course and scholarship (contracted) students incur an obligation to serve in the active Army, Army Reserve or National Guard.

# Military Science Minor

**Foundational Courses:** In order to enroll in courses leading to the Military Science minor, students should complete MILS 1010, MILS 1020, MILS 2010, MILS 2020 and MILS 2400. The department may award experiential credit for these courses for: prior military service, Advanced Individual Training (AIT), Leader's Training Course (LTC) or Accelerated Cadet Commissioning Training (ACCT).

**Grade Requirements:** Obtain a grade of "C" or better in all courses used toward the minor, and a cumulative GPA of 2.5 for Military Science courses.

**Credit Hour Requirements:** A minimum of 21 hours in Military Science courses as outlined below.

## Required Courses (21 credit hours)

MILS 3010 - Adaptive Team Leadership **Credits: (4)**

MILS 3020 - Leadership in Changing Environments **Credits: (4)**

MILS 4010 - Mission Command and the Army Profession, Part 1 **Credits: (4)**

MILS 4020 - Mission Command and the Army Profession, Part 2 **Credits: (4)**

MILS 4400 - Advanced Physical Readiness **Credits: (2)**

HIST 3280 - American Military History from 1500 to 1890 **Credits: (3)** or

HIST 3290 - American Military History from 1890 to the Present **Credits: (3)**

## Aerospace Studies (Air Force ROTC)

Weber State provides a program in Aerospace Studies (Air Force) through an inter-campus agreement with the University of Utah. Students may minor in Aerospace Studies by satisfying requirements identified.

**Chair:** Lt Col Angelique P. Brown (SLC)

**Location:** Building 4, Room 421J

**Telephone Contact:** 801-626-7649 or 801-581-6236

**Professor:** Lt Col Michael Eliason

**Assistant Professor:** Capt Daniel Luczak

The Department of Aerospace Studies offers two, three, and four-year programs through the Air Force Reserve Officer Training Corps (AFROTC). These provide matriculated students an opportunity to earn commissions as officers in the U.S. Air Force in conjunction with completing bachelor's degree requirements in academic fields of the students' choice. AFROTC provides education that develops abilities and attitudes vital to the career of a professional Air Force officer and gives an understanding of the mission and the global responsibilities of the U.S. Air Force.

The Department of Aerospace Studies offers academic preparation in interdisciplinary areas including communication skills, Air Force history, leadership and management principles and practices, decision-making theory and policy formulation, ethics and values, socialization process within the armed services, national and international relations, national defense structure, national security policy, and military law. Entry into the General Military Course (GMC) during the first two years of AFROTC is open to all students. Entry into the Professional Officer Course (POC) during the final two years is selective and is normally initiated during the student's sophomore year. Potential candidate should contact the faculty for the most current information.

### Undergraduate Program

**General Requirements.** Enrollment is open to men and women who:

Are U.S. citizens or applicants for naturalization. (Non-U.S. citizens may participate in the General Military Course for academic credit only.)

Are at least 14 years of age.

Are enrolled as full-time students in a program leading to an academic degree (bachelor's degree or higher).

*Additional qualifications for admittance to the Professional Officer Course include:*

Complete 1 through 3, above, plus the following:

The General Military Course (four-year program) and a four-week field training course, or a six-week field training course (two-year program).

Complete all commissioning requirements prior to the following:

Age 29 if a pilot or navigator candidate, or

Age 35 for all other categories. Waivers to extend the maximum age may be granted on a case-by-case basis.

Meet the physical standards for general military service.

Attain the current minimum scores on the Air Force Officer Qualifying Test.

Have a recommendation from a board of Air Force officers.

Are at least 17 years old and enlist in the Air Force Reserve prior to entering the POC.

**Commissioning Requirements.** The requirements for commissioning include successful completion of the Professional Officer Course and field training, completion of a bachelor's or higher degree, and acceptance of a commission in the U.S. Air Force.

**Service Obligation.** There is no military service commitment for students in the General Military Course unless the student has an AFROTC scholarship. Those entering the Professional Officer Course incur an active-duty service commitment of not less than four (4) years after receiving a commission. POC graduates who are navigator candidates agree to serve six (6) years of active duty after graduation from navigator training. POC graduates who are pilot candidates accept ten (10) years of active duty service after graduation from pilot training.

**Financial Aid.** All AFROTC contracted cadets receive a monthly tax free allowance depending on their student status (Freshman, Sophomore, Junior, or Senior).

**Uniforms and Texts.** All Air Force texts and uniforms are furnished at no expense to the student.

**Scholarships.** AFROTC scholarships are available to qualified applicants in two, three and four-year programs. Each scholarship provides full tuition\*, laboratory and incidental fees, and limited reimbursement for curriculum-required textbooks. In addition, scholarship cadets receive a nontaxable cash allowance each month during the academic year while on scholarship status. Scholarships are available on a competitive basis for two, two and one-half, three, or three and one-half years. Applications for scholarships should be made directly to the Professor of Aerospace Studies, 1901 E. South Campus Drive, Room 2009.

\*to \$9,000

## **AFROTC Programs**

Two basic routes to an Air Force Commission are available to college students in the AFROTC. Entering students may enroll in the AFROTC four-year program, and those with at least two academic years remaining may apply for the two-year program. Students having an intermediate amount of school remaining (e.g., three years) may enroll in an adjusted four-year program.

**Four-Year Program.** Matriculated students may pursue the four-year program. Enrollment procedures for the first two years of AFROTC, known as the General Military Course, are the same as for any other college course. The GMC consists of one hour of course work and two hours of leadership laboratory each week.

During the sophomore year, cadets may apply for the last two years of the program, the Professional Officer Course. Requirements for entry into the POC are listed earlier under General Requirements. If selected for the POC, GMC cadets are scheduled to attend a four-week field training course at an Air Force base during the summer months.

Students enrolled in AFROTC may major in any field.

**Two-Year Program.** For entry into the two-year program, two academic years must remain at the undergraduate or graduate level, or a combination of the two. Two-year program applicants must qualify by meeting the same criteria as students in the General Military Course who are applying for POC entry. (See General Requirements.)

Each applicant must successfully complete a six-week field training course at an Air Force base during the summer months. This course provides academic and military preparation for entry into the POC. Those fulfilling all requirements, including the successful completion of field training, complete enrollment procedures upon return to campus. Application for the two-year program should be made early in the academic year (normally sophomore year) so that requirements may be completed in time for assignment to summer field training.

*Note: Classes are held at the University of Utah.*

## **Aerospace Studies (Air Force ROTC) Minor**

**Grade Requirements:** The cumulative grade-point average (GPA) for all courses used toward the minor must be 2.0 or greater, with no course grade lower than a C-.

**Credit Hour Requirements:** A minimum of 16 hours credit hours in departmental classes, 12 of which must be upper division.

### **Advisement**

All Aerospace Studies students are required to meet with a faculty advisor at least semi-annually for course and program advisement. Call (801) 581-6236 for more information or to schedule an appointment.

### **Admission Requirements**

Enrollment in any of the upper division, directed studies, or leadership lab classes requires approval of the department. Contact (801) 581-6236 for more information.

## **Course Requirements for Minor**

Basic Courses: (C- or better)

- AERO 1010 - Foundations of USAF I **Credits: (1)**
- AERO 1011 - Foundations of USAF II **Credits: (1)**
- AERO 2010 - Airpower History I **Credits: (1)**
- AERO 2011 - Airpower History II **Credits: (1)**

Upper division courses: (C- or better)

- AERO 3010 - Leadership Studies I **Credits: (3)**
- AERO 3011 - Leadership Studies II **Credits: (3)**
- AERO 4010 - National Security Affairs I **Credits: (3)**
- AERO 4011 - National Security Affairs II **Credits: (3)**

Note:

*Completion of 6-week Field Training (AERO 3000) or two or more years active duty as an enlisted member in the United States Air Force may result in exemption from the basic courses.*

# Engaged Learning, Honors, and Interdisciplinary Programs

Weber State University has a long history of engaging students in learning both inside and outside the classroom. Engaged learning fosters intellectual and personal growth, critical thinking, problem solving, civic engagement, and professional and career development opportunities. Students engage with faculty members in small groups or one-on-one, for an intellectually challenging experience that is enhanced by professional and real world application of knowledge.

The Office of Undergraduate Research, the Center for Community Engaged Learning, and Honors Program continue to facilitate the engaged learning of WSU students by collaborating with disciplines across colleges. These programs offer engaged learning opportunities in undergraduate research, community engaged learning, and classes that provide a stimulating, creative and supportive learning environment.

Interdisciplinary programs provide students the opportunity to expand their learning across different subject areas, and contribute to a well-rounded educational experience.

## **Program Chairs/Directors/Coordinators**

Undergraduate Research: Dr. John Cavitt	801-626-8541
Community Engaged Learning: Dr. Melissa Hall	801-626-7737
Honors Program: Dr. Dan Bedford	801-626-7591
Bachelor of Integrated Studies (BIS): Dr. Michael Cena	801-626-7713
Library Science: Wendy Holliday	801-626-6403
Asian Studies: Dr. Greg Lewis	801-626-6781
Environmental Studies: Dr. Mikel Vause	801-626-6659
Ethnic Studies: Dr. Eric Ewert	801-626-6197
European Studies: Dr. Thomas Mathews	801-626-6345
Latin American Studies: Dr. Alicia Giralt	801-626-6726
Learning English for Academic Purposes (LEAP): Debi Sheridan	801-626-6775
Legal Studies: Dr. Thom Kuehls	801-626-6696
Linguistics: Dr. Mark LeTourneau	801-626-6386
Neuroscience: Dr. Lauren Fowler	801-626-7620
Urban and Regional Planning: Dr. Bryan Dorsey	801-626-6944
Women & Gender Studies: Dr. Melina Alexander	801-626-8742

# Office of Undergraduate Research

**Director:** Dr. John Cavitt

**Telephone Contact:** Erin Bryner (801) 626-8541

**Location:** Library, Suite 58

**Internet Address:** weber.edu/OUR

Weber State University offers undergraduates the opportunity to work directly with faculty on projects that involve research, scholarly and creative activities. These projects are designed and implemented by students with the support and guidance of WSU faculty. Undergraduate research, and scholarly and creative activities must include:

- inquiry, study or investigation of a question or problem;
- methodology, including safety and ethical practices, appropriate to the discipline;
- relevant, meaningful, and engaging intellectual or creative contribution and/or application to the discipline which is of high-quality and which results in a tangible product (abstract, paper, performance, object) which can be shared or disseminated; and
- on-going supervision and mentoring by individuals with appropriate expertise.

Undergraduate research has long been an important part of the college experience at Weber State University. The Office of Undergraduate Research (OUR) supports students by offering grants for research and travel for dissemination of results. In addition, OUR publishes *Ergo*, WSU's undergraduate research journal, and sponsors an undergraduate research symposium each spring semester.

## Center for Community Engaged Learning

**Executive Director:** Melissa Hall (801) 626-7737

**Office Manager:** Carla Jones

**Location:** Center for Community Engaged Learning, Shepherd Union, Suite 327

**Internet Address:** weber.edu/CCEL

The Center for Community Engaged Learning at Weber State University facilitates both curricular and co-curricular community engaged learning experiences. Courses designated as Community Engaged Learning (CEL) are designed to provide students learning opportunities through real life experiences and application of knowledge in the community. These courses provide a structured approach to learning and teaching that connects meaningful community experience with intellectual development, personal growth, and active citizenship. Community engaged learning enriches coursework by encouraging students to apply the knowledge and analytic tools gained in the classroom to the pressing issues affecting local communities.

Community engagement describes the collaboration between Weber State University and our larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity (Carnegie Foundation). Community engaged learning therefore is defined as an activity that involves a collaborative, reciprocal relationship with the community that prepares our students, faculty, staff and alumni to be engaged citizens, strengthen democratic values and civic responsibility by addressing community issues.

Community engaged learning can be facilitated through: service, democratic engagement and community research.

**Service** experiences often involve working directly with community residents to meet an immediate need. Examples of service include, but are not limited to: volunteering to serve meals at a homeless shelter, using academic knowledge to develop an electronic food-monitoring database for a food pantry, serving as a mentor or tutor in a local school or youth development program, cleaning up the banks of the Ogden River, or coaching a city youth sport.

**Democratic engagement** experiences often involve raising awareness about issues of public concern and working more systematically through both political and non-political processes to create change. Examples of democratic engagement include, but are not limited to: attending organized discussions about pollution; community organizing; writing a letter to an elected official; engaging others in the process of deliberative democracy; or producing information about community issues.

**Community research** experiences often involve gathering information with and for community organizations to solve a pressing community problem or create change. Examples of community research include, but are not limited to: community needs assessment survey; water quality or scientific assessment; or program evaluation for non-profit organizations.

Regardless of the type of community engaged learning experience, students are expected to acquire four community engaged learning outcomes through their experiences: civic knowledge, civic skills, civic values, and civic action. Community engaged learning outcomes, definitions, and measurement rubrics can be found at [www.weber.edu/CCEL](http://www.weber.edu/CCEL).

## **Courses**

Community engaged learning is not specific to any one discipline; in fact, CEL courses exist in many disciplines across campus. For example, an Athletic Training class incorporates a service component wherein students are utilizing their knowledge and skills gleaned from class to serve patrons at a local free medical clinic.

Community Engaged Learning courses are designated with a CEL prefix and are listed in the course schedule published online each semester. Additionally, a full list of CEL designated courses can be found on the Center for Community Engaged Learning website at [weber.edu/CCEL](http://weber.edu/CCEL).

# **Honors Program**

**Director:** Dan Bedford [dbedford@weber.edu](mailto:dbedford@weber.edu)

**Academic Advisor:** (801) 626-7336

**Administrative Specialist:** Megan Moulding (801) 626-7591 [meganmoulding@weber.edu](mailto:meganmoulding@weber.edu)

**Administrative Assistant:** Tyler Hole (801) 626-6230 [tylerhole@weber.edu](mailto:tylerhole@weber.edu)

**Location:** Stewart Library, Room 324

**Internet Address:** [weber.edu/honors](http://weber.edu/honors)

## **Mission Statement**

The mission of the WSU Honors Program is to provide a welcoming community for intellectually curious, academically adventurous students.

We nurture excellence in this community, regardless of prior academic preparation.

We build this community by offering small, creative, rigorous classes; leadership opportunities; and other innovative learning experiences.

We open this community to the university as a whole by organizing events that catalyze far-reaching conversations about significant issues relevant to contemporary society.

## **DECLARACIÓN de la MISIÓN:**

La misión del Programa de Honores WSU es la de proporcionar una comunidad acogedora para alumnos que posean curiosidad intelectual y que sean académicamente aventureros.

En esta comunidad fomentamos la excelencia, independientemente de la preparación académica previa.

Desarrollamos esta comunidad al proveer clases pequeñas, creativas y rigurosas; oportunidades de liderazgo y otras experiencias de aprendizaje innovadoras.

Abrimos esta comunidad a la universidad en su conjunto, mediante la organización de eventos que catalizan conversaciones de gran alcance con respecto a asuntos importantes de interés a la sociedad contemporánea.

## Entrance and Exit Requirements

A student may apply for entrance into the Honors Program at any time after formal acceptance by the Weber State Admissions Office. However, in order to take advantage of the many options available, early entrance is recommended. Exit applications must be submitted before the fall or spring break of anticipated graduation. Entrance and exit requirements and application forms are available in the Honors Center or at [weber.edu/honors](http://weber.edu/honors).

## Honors Designations

**General Honors** is available to students completing the requirements for an associate's degree and successfully completing 12 credit hours of Honors courses.

**University Honors** is available to students earning a bachelor's degree who have completed 24 hours of Honors credits which must include the Honors Program Core Requirements (see University Honors Core Requirements below).

**Departmental Honors** is available to students majoring in departments with designated Departmental Honors contracts. Specific requirements for participating departments are found in these contracts. Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors.

Students may elect to graduate with only one of the three Honors designations, or they may choose to graduate with all or a combination of Honors designations. Official recognition for the completion of an Honors designation is subject to timely submission of the exit form. Recognition of the designation will be made on the graduating Honors student's transcript and diploma and will also be entered into the university's commencement program. In the event a student completes Departmental Honors in more than one department, notation of each will be made on the transcript, diploma, and commencement program.

BIS Honors Emphasis is also available to students who elect to graduate with a BIS degree. A student may design an individualized Honors curriculum to be used as one of the three areas of emphasis for the Bachelor of Integrated Studies degree. For information consult the BIS office.

## University Honors Core Requirements

**Students will complete three of the eight classes listed below:**

- HNRS 1110 HU - Introduction to Honors: The Construction of Knowledge **Credits: (3)**
- HNRS 2010 HU - Exploring Key Concepts in the Disciplines: Humanities **Credits: (3)**
- HNRS 2020 CA - Exploring Key Concepts in the Disciplines: Creative Arts **Credits: (3)**
- HNRS 2030 PS - Exploring Key Concepts in the Disciplines: Physical Sciences **Credits: (3)**
- HNRS 2040 LS - Exploring Key Concepts in the Disciplines: Life Sciences **Credits: (3)**
- HNRS 2050 SS - Exploring Key Concepts in the Disciplines: Social Science **Credits: (3)**
- HNRS 2110 HU/SS - Intellectual Traditions: Great Ideas of the West in the Classical and Medieval Eras **Credits: (3)**
- HNRS 2120 HU/SS - Intellectual Traditions: Great Ideas of the West in the Modern Era **Credits: (3)**
- HNRS 2130 HU/SS/DV - Intellectual Traditions: Great Ideas of the East **Credits: (3)**

**In addition, the following courses are required:**

- HNRS 3900 - Honors Colloquium **Credits: (3)** – 2 classes are required
- HNRS 4990 - Honors Senior Project **Credits: (3)** - This option may also be completed through the student's major department.

Students will complete the remaining six credits required to earn University Honors with any other Honors courses.

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Students will complete three of the eight classes listed below:

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- HNRS 2020 CA - Exploring Key Concepts in the Disciplines: Creative Arts **Credits: (3)**
- HNRS 2030 PS - Exploring Key Concepts in the Disciplines: Physical Sciences **Credits: (3)**
- HNRS 2040 LS - Exploring Key Concepts in the Disciplines: Life Sciences **Credits: (3)**
- HNRS 2050 SS - Exploring Key Concepts in the Disciplines: Social Science **Credits: (3)**
- HNRS 2110 HU/SS - Intellectual Traditions: Great Ideas of the West in the Classical and Medieval Eras **Credits: (3)**
- HNRS 2120 HU/SS - Intellectual Traditions: Great Ideas of the West in the Modern Era **Credits: (3)**
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*Students will complete the remaining six credits required to earn University Honors with any other Honors courses.*

## Bachelor of Integrated Studies Program

### Integrated Studies (BIS)

**Coordinator:** Dr. Michael Cena  
**Location:** Stewart Library, Room 58  
**Telephone Contact:** Beth Thompson 801-626-7713  
**Website:** [weber.edu/bis](http://weber.edu/bis)

The Bachelor of Integrated Studies (BIS) Program is an interdisciplinary degree program that serves the needs of students who want to create a specific academic program, obtain a broad liberal education, prepare for particular career goals, or go to graduate school. The program best suits students who have developed a sense of their educational and life goals, and who are looking for ways to express those values through an individualized university program.

To accomplish these general outcomes, BIS students complete course work in three different disciplines. As a culminating experience, students then synthesize the three areas in a capstone project. The BIS degree option is available to students in good standing at Weber State University with a GPA of 2.5 or above. Students must formally apply for admittance into the BIS program, and must take 15 credit hours in the program after they are accepted.

### Program Requirements

BIS applicants must earn and maintain a 2.5 GPA to graduate with a Bachelors of Integrated Studies degree. The institution requires that every bachelor's degree candidate earn a total of 120 credit hours, 40 of which must be upper division hours.

A BIS student can expect to take a minimum of 18 credit hours in each of three areas of emphasis, plus 5 hours for the capstone preparation and project, for a minimum of 59 credits in the BIS program.  
All contract and BIS courses must receive a minimum grade of "C" in order to count towards the BIS degree.  
Only graded classes can be included in the course contract (special exams, CLEP, or credit/no credit may not be included in the BIS contract).  
Courses which are used to satisfy General Education may not be used again in the BIS contract.

## **Advisement**

All prospective students must meet with the BIS Coordinator to plan a course of study, and be admitted into the program. Call 801-626-7713 to schedule an appointment. For more information, see the BIS Web page ([weber.edu/bis](http://weber.edu/bis)).

## **General Education**

Refer to Degree Requirements for bachelor's degree requirements. Honors students may elect to fulfill this requirement through the Honors general education option.

## **Course Requirements for BIS Degree**

Contract of three areas of emphasis: (54 credit hours minimum)

Every BIS student will take a minimum of 18 credit hours in three different academic departments or institutionally recognized disciplines (two of which must offer upper division credit) as approved by the department and the BIS Coordinator. Any change in the course contract must be approved by the chair of the appropriate department and the BIS coordinator.

**BIS Capstone and Graduation Preparation Class (3 credit hours)**

This class will prepare students to successfully complete the BIS capstone thesis project, and to prepare themselves professionally for careers and graduate school. (Required prerequisite for capstone)

BIS 3800 - BIS Capstone and Graduation Preparation **Credits: (3)**

**BIS Capstone Project: (3 credit hours)**

The BIS capstone project gives students the opportunity to integrate their three areas of emphasis into a single thesis. (Required for graduation)

BIS 4800 - Bachelor of Integrated Studies Senior Capstone **Credits: (3)**

## **Internship Option**

**Elective - BIS Internship (1-3 credit hours)**

The opportunity to earn 1 to 3 credits for an internship is available to students in the BIS program. Please contact the BIS coordinator for more information.

BIS 3850 - BIS Internship **Credits: (1-3)**

## BIS Departmental Honors

Please see [weber.edu/honors/contracts.html](http://weber.edu/honors/contracts.html) for a list of current Departmental Honors contracts and Departmental Honors Advisors. For additional information about the Honors Program, please refer to the Honors Program section of the WSU Catalog.

## Learning English for Academic Purposes (LEAP)

**Chair:** Debi Sheridan

**Location:** Elizabeth Hall, Room 207

**Telephone Contact:** Sandy Thomas (801) 626-7457

**Instructors:** Giana Curtis, Amy Reimann Hudson, Debi Sheridan

The Weber State University LEAP (Learning English for Academic Purposes) Department provides intensive English language courses for students in the process of acquiring English as a second language for academic use. It is the mission of the Department to prepare these students to function effectively in mainstream academic classes where English is the language of instruction. In doing so, we also seek to familiarize students with American culture and the academic atmosphere of studying in an American university.

The program curriculum includes courses that utilize an integrated skills, content-based approach. The goal of the department is to prepare non-native English speaking students to read, write and communicate effectively in academic courses.

The program consists of six levels of instruction (Novice Low through Advanced according to ACTFL guidelines available at <https://www.actfl.org/publications/guidelines-and-manuals/actfl-performance-descriptors-language-learners>), two levels per semester and the LEAP Bridge Classes. Each level (with the exception of LEAP Bridge Classes) is 7 weeks in length. The Bridge LEAP Classes are 15 weeks in length. Courses are competency based. Students must pass a proficiency final exam at the end of the semester and receive a grade of C+ (77%) or better in order to progress to the next level.

### Total Credit Hours per Level

Levels	1	2	3	4	5	6	LEAP Bridge Classes
Credits	9	9	9	9	9	9	6

Levels 1-3 are non-credit and do not count toward graduation. Courses in Levels 4-6 and the LEAP Bridge classes earn credit which can be applied to fulfill the foreign language requirement for a Bachelor of Arts degree and Associate of Arts degree or applied as elective credit toward the Bachelor of Science and Associate of Science degrees. This may be done by passing the LEAP Special Examination or by completing LEAP 2510 and LEAP 2520 with a grade of C+ or better.

Students who pass the LEAP Special Examination or who complete LEAP 2510 and LEAP 2520 with a grade of C+ or better will be able to receive 16 hours of credit for ESL 2310, ESL 2410, ESL 2420, ESL 2430, and ESL 2441 for a nominal fee. (Inquire in the LEAP Office EH 207.)

**CR/NC Sections:**

CR/NC sections of each course are available. CR/NC sections do not factor into a student's GPA. Students participate in the same classes with the same teachers and are held to the same proficiency standards as graded courses. Contact the LEAP office for more information.

**International Students:**

International students who meet the University's TOEFL or IELTS minimum requirements for placement in academic courses are cleared to register for ENGL 1010.

International students who **do not** meet the University's TOEFL or IELTS minimum requirements for placement in academic courses must take the LEAP Placement Test. Students are required to complete the appropriate ESL courses according to the test results before being cleared to take academic courses on campus.

Students sponsored by the Saudi Arabian Cultural Mission (SACM) are required by SACM to complete 20 credit hours per semester.

**Comments:**

The Placement Test should be taken as soon as the students arrive at the university to determine placement level for necessary ESL courses.

All International students are also required to take the Math Accuplacer Test (see the Department of Mathematics section of this catalog).

Students must complete Advanced (Level 6) before they can register for other university classes.

**Resident Students:**

Resident students for whom English is their second language and who have ACT scores 16 or below or Accuplacer scores 89 or below are required to take the ESL Placement Test and complete appropriate ESL courses according to the test results before registering for ENGL 1010.

Learning English for Academic Purposes (LEAP) Course Descriptions

## Library Science

**Dean of the Library:** Wendy Holliday

**Location:** Stewart Library, Room 108A

**Telephone:** Cathy Christensen 801-626-6405

**Professors:** Shaun Adamson, Wade Kotter; **Associate Professors:** G. Arthur Carpenter, Edward Hahn, Joan Hubbard, Kathryn Payne; **Assistant Professors:** Nicole Beatty, Jason Francis, Chris Hauser, Ernesto Hernandez, Miranda Kispert

To be successful in a global information society, students must understand how to identify, locate, and critically evaluate information. The Department of Library Science provides instruction and assistance that enable students to effectively access and utilize digital and print information resources to meet their academic, professional and life-long learning needs.

# Asian Studies Minor Program

**Coordinator:** Dr. Greg Lewis

**Location:** Social Science, Room 256

**Telephone:** 801-626-6707 **Fax:** 801-626-7613

Asian Studies at Weber State offers a Minor in Asian Studies, supports the Foreign Language Department's Japanese Minor, oversees courses in the Middle East Track, and cooperates with the BIS Program to offer a Bachelor's degree "BIS Asian Studies Concentration." Asian Studies courses are offered through a number of cooperating departments including History, Political Science and Philosophy, Geography, Foreign Language, English, Honors, Sociology and Anthropology, Visual Arts, Health and Physical Education, and others.

**Grade Requirements:** A grade of "C" or above in each course used toward the Asian Studies Minor (a grade of C- is not acceptable).

**Credit Hour Requirements:** Fifteen credit hours of courses must be taken from at least four of the areas listed under Course Requirements for Minor.

*Courses taken which are part of the student's major will not count as fulfillment of the minor requirement.*

## Course Requirements for Minor

Required Courses (15 credit hours)

*Select 15 credit hours from at least four of the following areas*

- ARTH 2040 - Art and Architecture of Asia **Credits: (4)**
- ARTH 3060 - The Art and Architecture of India **Credits: (4)**
- ARTH 3070 - The Art and Architecture of China **Credits: (4)**
- ARTH 3080 - The Art and Architecture of Japan **Credits: (4)**
- ARTH 3100 - The Art and Architecture of the Islamic World **Credits: (4)**
- ENGL 3730 - Literatures of Cultures and Places **Credits: (3) \***
- ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3) \***
- FL 1000 - Proficiency Development **Credits: (1-2) \*** (2 credit hours required)
- FL 1010 - First Semester **Credits: (3) \***
- FL 1020 - Second Semester **Credits: (3) \***
- FL 2000 - Proficiency Development **Credits: (1-2) \*** (2 credit hours required)
- FL 2010 - Third Semester **Credits: (3) \***
- FL 2020 HU - Fourth Semester **Credits: (3) \***
- FL 3060 - Grammar & Composition **Credits: (3) \***
- FL 3160 - Introduction to Literature **Credits: (3) \***
- FL 3220 - Phonetics and Phonology **Credits: (3) \***
- FL 3320 - Applied Language Studies **Credits: (1-3) \***
- FL 3550 - Cultural Heritage I **Credits: (3) \***
- FL 3630 - Literature Poetry **Credits: (3) \***
- FL 3650 - Literature Periods **Credits: (3) \***
- FL 3670 - Literature Authors **Credits: (3) \***
- FL 3690 - Literature Special Topics in Literature **Credits: (1-3) \***
- FL 3710 - Business Language I **Credits: (3) \***
- FL 3850 - Study Abroad **Credits: (1-6) \***
- FL 4190 - Foreign Language Journal **Credits: (1) \***
- FL 4400 - Methods for Teaching Languages **Credits: (3) \***
- FL 4620 - Survey of Literature I **Credits: (3) \***
- FL 4630 - Survey of Literature II **Credits: (3) \***
- FL 3715 - Business Language II **Credits: (3) \***
- FL 4850 - Study Abroad **Credits: (1-6) \***
- FL 4960 - Senior Project **Credits: (1-3) \***

GEOG 3640 - Geography of Asia **Credits: (3)**  
 GEOG 3660 - Geography of China and Japan **Credits: (3)**  
 GEOG 3780 - Geographic Area Studies **Credits: (1-3) \***  
 GEOG 4800 - Individual Research **Credits: (1-3) \***  
 HIST 4530 - Far Eastern History **Credits: (3)**  
 HIST 4550 - Southeast Asian History **Credits: (3)**  
 HIST 4590 - Middle Eastern History **Credits: (3)**  
 HIST 4730 - Special Issues & Topics in Global and Comparative History (3) \*  
 POLS 3220 - Politics and Governments of Asia **Credits: (3)**  
 POLS 4830 - Directed Readings **Credits: (1-2) \***  
 POLS 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-3) \***  
 PHIL 3550 - Philosophy of Eastern Religion **Credits: (3)**  
 PE 1410 - TaiChi, Level I **Credits: (1)**  
 PE 1411 - TaiChi, Level II **Credits: (1)**  
 PE 1412 - TaiChi, Level III **Credits: (1)**  
 PE 1435 - Kempo, Level I **Credits: (1)**  
 PE 1436 - Kempo, Level II **Credits: (1)**  
 PE 1437 - Kempo, Level III **Credits: (1)**  
 PE 1445 - Tae Kwon-do, Level I **Credits: (1)**  
 PE 1446 - Tae Kwon-do, Level II **Credits: (1)**  
 PE 1447 - Tae Kwon-do, Level III **Credits: (1)**  
 SOC 4990 - Seminar in Sociology **Credits: (3) \***  
 HNRS 2130 HU/SS/DV - Intellectual Traditions: Great Ideas of the East **Credits: (3)**  
 WGS 2900 - Topics in Women's Studies **Credits: (1-3)**  
 WGS 4900 - Topics in Women's Studies **Credits: (1-3) \***

Note:

*\*Acceptable when the emphasis and/or content are basically Asian Studies/Language or Middle East Studies/Language.*

Should other courses relating specifically to Asia or the Middle East, either of an experimental or of a permanent nature, be added to the curriculum, these courses will be accepted as part of the Asian Studies Minor. To be a part of the Asian Studies curriculum, a course must have two-thirds Asian content.

## **Environmental Studies Minor Program (see Geography)**

## **Ethnic Studies Program**

### **Ethnic Studies Emphasis (BIS)**

**Coordinator:** Dr. Eric Ewert

**Location:** Social Science Building, Room 316

**Telephone:** 801-626-6197

The Ethnic Studies Emphasis at WSU examines the construction and context of ethnicity in the United States with a primary focus on Americans of African, Asian, Latino, and Native American descent. Other ethnic foci may be developed by the student to meet his or her particular interests. As an element of American identity that cuts across disciplinary categories, ethnicity requires a mode of study that draws on the humanities, the social sciences, and other related fields. Ethnicity also must be addressed historically and comparatively, paying attention to the five centuries of North American minority experience and the perspectives of other New World societies and cultures. Above all, the program seeks to convey knowledge and understanding of ethnicity in the United States and to help students learn about the opportunities and responsibilities they have as citizens in an increasingly multicultural nation.

**Grade Requirements:** A grade of "C-" or better is required for all courses in Ethnic Studies.

**Credit Hour Requirements:** A minimum of 18 credit hours.

## **Ethnic Studies Program**

### Course Requirements for Emphasis

Basic Core (6 credit hours required of all students)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

SOC 3850 - Race & Ethnicity **Credits: (3)**

Select one of the following options or design a comparable one:

Option I: Hispanic Studies (12 credit hours)

HIST 3050 - History of U.S. Latinos **Credits: (3)**

HIST 4110 - History of the American West to 1900 **Credits: (3)**

HIST 4670 - History of Mexico **Credits: (3)**

HIST 4630 - History of Ancient and Colonial Latin America **Credits: (3)** or

HIST 4650 - Modern Latin America **Credits: (3)**

Option II: Native American Studies (12 credit hours)

ANTH 3600 - Culture Area Studies **Credits: (1-3)** (3 credit hours required)

ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**

HIST 3010 - Native American History: 1300 to Present **Credits: (3)**

HIST 4110 - History of the American West to 1900 **Credits: (3)**

Option III: African-American Studies (12 credit hours)

HIST 3030 - African-American History **Credits: (3)**

HIST 4040 - Era of the Civil War and Reconstruction: 1840-1877 **Credits: (3)**

HIST 4610 - History of Africa **Credits: (3)**

GEOG 3740 - Geography of Africa **Credits: (3)**

Option IV: Composite (12 credit hours)

*Select a minimum of 12 credit hours from the following:*

HIST 3010 - Native American History: 1300 to Present **Credits: (3)**

HIST 3030 - African-American History **Credits: (3)**

HIST 3050 - History of U.S. Latinos **Credits: (3)**

ENGL 3550 - Multicultural and Ethnic Literature in America **Credits: (3)**

GEOG 3540 - Geography of Latin America **Credits: (3)**

GEOG 3640 - Geography of Asia **Credits: (3)**

Note:

*Should other courses relating specifically to ethnic minorities, either of an experimental or of a permanent nature be added to the curriculum, these courses will be accepted as part of the Ethnic Studies emphasis; should such courses be part of an academic area not listed, the new academic area will be added to those presently constituting the Ethnic Studies emphasis.*

# Ethnic Studies Emphasis

**Coordinator:** Dr. Eric Ewert

**Location:** Social Science Building, Room 316

**Telephone:** 801-626-6197

The Ethnic Studies Emphasis at WSU examines the construction and context of ethnicity in the United States with a primary focus on Americans of African, Asian, Latino, and Native American descent. Other ethnic foci may be developed by the student to meet his or her particular interests. As an element of American identity that cuts across disciplinary categories, ethnicity requires a mode of study that draws on the humanities, the social sciences, and other related fields. Ethnicity also must be addressed historically and comparatively, paying attention to the five centuries of North American minority experience and the perspectives of other New World societies and cultures. Above all, the program seeks to convey knowledge and understanding of ethnicity in the United States and to help students learn about the opportunities and responsibilities they have as citizens in an increasingly multicultural nation.

**Grade Requirements:** A grade of "C-" or better is required for all courses in Ethnic Studies.

**Credit Hour Requirements:** A minimum of 18 credit hours.

## Ethnic Studies Program

### Course Requirements for Emphasis

Basic Core (6 credit hours required of all students)

ANTH 1000 SS/DV - Introduction to Anthropology **Credits: (3)**

SOC 3850 - Race & Ethnicity **Credits: (3)**

Select one of the following options or design a comparable one:

Option I: Hispanic Studies (12 credit hours)

HIST 3050 - History of U.S. Latinos **Credits: (3)**

HIST 4110 - History of the American West to 1900 **Credits: (3)**

HIST 4670 - History of Mexico **Credits: (3)**

HIST 4630 - History of Ancient and Colonial Latin America **Credits: (3)** or

HIST 4650 - Modern Latin America **Credits: (3)**

Option II: Native American Studies (12 credit hours)

ANTH 3600 - Culture Area Studies **Credits: (1-3)** (3 credit hours required)

ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present **Credits: (4)**

HIST 3010 - Native American History: 1300 to Present **Credits: (3)**

HIST 4110 - History of the American West to 1900 **Credits: (3)**

Option III: African-American Studies (12 credit hours)

HIST 3030 - African-American History **Credits: (3)**

HIST 4040 - Era of the Civil War and Reconstruction: 1840-1877 **Credits: (3)**

HIST 4610 - History of Africa **Credits: (3)**

GEOG 3740 - Geography of Africa **Credits: (3)**

Option IV: Composite (12 credit hours)

*Select a minimum of 12 credit hours from the following:*

- HIST 3010 - Native American History: 1300 to Present **Credits: (3)**
- HIST 3030 - African-American History **Credits: (3)**
- HIST 3050 - History of U.S. Latinos **Credits: (3)**
- ENGL 3550 - Multicultural and Ethnic Literature in America **Credits: (3)**
- GEOG 3540 - Geography of Latin America **Credits: (3)**
- GEOG 3640 - Geography of Asia **Credits: (3)**

Note:

*Should other courses relating specifically to ethnic minorities, either of an experimental or of a permanent nature be added to the curriculum, these courses will be accepted as part of the Ethnic Studies emphasis; should such courses be part of an academic area not listed, the new academic area will be added to those presently constituting the Ethnic Studies emphasis.*

## European Studies Minor Program

### European Studies Minor

**Coordinator:** Thomas Mathews

**Location:** Elizabeth Hall, Room 420

**Telephone:** 801-626-6345

The European Studies Minor is an interdisciplinary program offered through several WSU departments. Students wishing to minor in European Studies must have their course selection approved by the program coordinator.

**Grade Requirements:** A grade of "C" or better in each course used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A minimum of 18 credit hours in addition to two years of college study (or the equivalent) of a European language. Courses taken which are part of the student's major will not count as fulfillment of the minor requirement. Of the total 18 credit hours, only six may be taken in the same department.

#### Advisement

All students electing the minor are required to meet with the coordinator for approval of all courses to be counted toward fulfillment of the requirements. The coordinator will ascertain that the individual courses selected are eligible to be counted, and that together they form a coherent curriculum of sufficient breadth.

#### Course Requirements for Minor

*The following are required in addition to two years of college study in a European language other than the student's native language, or equivalent proficiency to be demonstrated by the student.*

Core requirements (9 credit hours)

FL 3320 - Applied Language Studies **Credits: (1-3)** Take either: "European Language & Society" (3 cr) OR "European Culture & Community" (3 cr)

Two courses (six credit hours) from the following; courses may not be from the same department:

- HIST 4220 - History of the Middle Ages 300-1300 **Credits: (3)**
- HIST 4230 - Renaissance and Reformation - Europe: 1300-1660 **Credits: (3)**
- HIST 4240 - Absolutism, Enlightenment and Revolution - Europe: 1660-1815 **Credits: (3)**
- HIST 4250 - Nineteenth-Century Europe **Credits: (3)**
- HIST 4260 - Twentieth-Century Europe **Credits: (3)**
- HIST 4280 - History of Christianity in Europe **Credits: (3)**
- GEOG 3590 - Geography of Europe **Credits: (3)**
- POLS 3210 - Politics and Governments of Europe **Credits: (3)**

Elective requirements (9 credit hours)

*Select nine additional credit hours from the following programs and departments as approved by the program coordinator: Anthropology, Communication, English, Foreign Language, Performing Arts, Business & Economics, Geography, History, Political Science, Philosophy, Sociology, Honors. Courses selected and approved from these departments must have explicit European emphasis and content.*

## Latin American Studies Minor Program

### Latin American Studies Minor

**Coordinator:** Alicia Giralte

**Location:** Elizabeth Hall, Room 231

**Telephone:** 801-626-6726 **Fax:** 801-626-7588

The Latin American Studies Minor is an interdisciplinary program offered through a number of cooperating departments and programs including Foreign Languages, History, Geography, Political Science and Philosophy, Psychology, Sociology, Anthropology, Child and Family Studies, English, and Women Studies.

**Grade Requirements:** A grade of "C" or better in each course used toward the minor (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A minimum of 18 credit hours in addition to two years of college Portuguese or Spanish or their equivalent.

*Courses taken which are part of the student's major will not count as fulfillment of the minor requirement.*

### FL Courses

The following course descriptions are generic and apply to all languages. The acronym FL denotes foreign language courses. In the class schedule each semester courses will be language specific: FRCH for French, GRMN for German, JPNS for Japanese, and SPAN for Spanish, etc.

### Course Requirements for Minor in Latin American Studies

Required Course (3 credit hours)

- FL 3540 - Latin American Environment and Cultures **Credits: (3)** (taught in English)

Note:

*The following are required in addition to two years of college study in Portuguese or Spanish or equivalent proficiency to be demonstrated by the student.*

Other Required Courses (15 credit hours)

*Select 15 credit hours chosen from at least three of the following departments.*

Child & Family Studies

CHF 4300 - Latino Child and Family Development **Credits: (3)**

Foreign Languages

*acceptable in Spanish or Portuguese*

FL 3060 - Grammar & Composition **Credits: (3)**  
FL 3160 - Introduction to Literature **Credits: (3)**  
FL 3320 - Applied Language Studies **Credits: (1-3)**  
FL 3360 - Advanced Grammar **Credits: (3)**  
FL 3550 - Cultural Heritage I **Credits: (3)**  
FL 3560 - Cultural Heritage II **Credits: (3)**  
FL 3570 - Special Topics in Culture **Credits: (3)**  
FL 3610 - Literature Survey I **Credits: (3)**  
FL 3620 - Literature Survey II **Credits: (3)**  
FL 3630 - Literature Poetry **Credits: (3)**  
FL 3650 - Literature Periods **Credits: (3)**  
FL 3670 - Literature Authors **Credits: (3)**  
FL 3690 - Literature Special Topics in Literature **Credits: (1-3)**  
FL 3710 - Business Language I **Credits: (3)**  
FL 3720 - Language for Specific Purposes I **Credits: (3)**  
FL 3730 - Language for Specific Purposes II **Credits: (3)**  
FL 3740 - Translation I **Credits: (3)**  
FL 3850 - Study Abroad **Credits: (1-6)**  
FL 4620 - Survey of Literature I **Credits: (3)**  
FL 4630 - Survey of Literature II **Credits: (3)**  
FL 4690 - Special Topics in Literature **Credits: (3)**  
FL 3715 - Business Language II **Credits: (3)**  
FL 4740 - Translation II **Credits: (3)**  
FL 4830 - Directed Readings **Credits: (1-3)**  
FL 4850 - Study Abroad **Credits: (1-6)**

English

ENGL 3730 - Literatures of Cultures and Places **Credits: (3)** \*\*

History

HIST 3050 - History of U.S. Latinos **Credits: (3)**  
HIST 4410 - History of Spain and Portugal **Credits: (3)**  
HIST 4630 - History of Ancient and Colonial Latin America **Credits: (3)**  
HIST 4650 - Modern Latin America **Credits: (3)**  
HIST 4670 - History of Mexico **Credits: (3)**  
HIST 4830 - Directed Readings **Credits: (1-3)** \*\*

## Geography

- GEOG 3540 - Geography of Latin America **Credits: (3)**
- GEOG 4800 - Individual Research **Credits: (1-3)** \*\*
- GEOG 4950 - Advanced Regional Field Studies **Credits: (1-3)** \*\*

## Political Science

- POLS 3290 - Introduction to Politics and Governments of Developing Nations **Credits: (3)** \*\*
- POLS 4830 - Directed Readings **Credits: (1-2)** \*\*
- POLS 4990 - Senior Seminar/Senior Thesis **Credits: (3)** \*\*

## Anthropology

- ANTH 3600 - Culture Area Studies **Credits: (1-3)** \*\*
- ANTH 4830 - Readings and/or Projects **Credits: (1-3)** \*\*

## Note:

*\*\* Acceptable when the emphasis and content are basically Latin American.*

Should other courses relating specifically to Latin America, either of an experimental or of a permanent nature, be added to the curriculum, these courses will be accepted as part of the Latin American Studies Minor Program. Should such courses be part of an academic area not listed above, the new academic area will be added to those presently constituting the Latin American Studies Minor.

# Legal Studies Minor Program

## Legal Studies Minor

**Contact:** Dr. Richard Price  
**Office:** SS 292  
**Website:** richardprice@weber.edu  
**Phone:** 801-626-6694

The Legal Studies Minor Program introduces students to the study of law in society from a broad, interdisciplinary perspective.

**Grade Requirements:** A grade of "C" or better in all courses used toward the minor (a grade of "C-" will not be accepted).

**Credit Hour Requirements:** A minimum of 18 credit hours.

## Course Requirement for Minor

Core Course Required (3 credit hours)

POLS 2400 SS - Introduction to Law and Courts **Credits: (3)**

## Additional Courses Required (15 credit hours)

*Students must take 15 additional hours with at least two courses from each area. No more than 6 hours (excluding the core requirement) may be lower division. No more than 6 hours (excluding the core requirement) may be taken in any one discipline.*

### Area I: Contextualizing the Law

COMM 1020 HU - Principles of Public Speaking **Credits: (3)** or  
COMM 2270 - Argumentation and Debate **Credits: (3)**

CJ 3270 - Theories of Crime and Delinquency **Credits: (3)** or  
SOC 3270 - Criminology **Credits: (3)**

CJ 4000 - Critical Legal Studies **Credits: (3)**

CJ 4065 - Law and Society **Credits: (3)** or  
POLS 4060 - Law and Society **Credits: (3)**

ECON 1010 SS - Economics as a Social Science **Credits: (3)**

ENGL 3210 - Advanced College Writing **Credits: (3)** or  
ENGL 3100 - Professional and Technical Writing **Credits: (3)**

HIST 3210 - U.S. Constitutional History **Credits: (3)**

PHIL 1250 HU - Critical Thinking **Credits: (3)** or  
PHIL 2200 - Deductive Logic **Credits: (3)**

PHIL 3200 - Philosophy of Democracy **Credits: (3)**

PHIL 4600 - Ethical Theory **Credits: (3)**

POLS 1100 AI - American National Government **Credits: (3)**

POLS 3330 - American Political Thought **Credits: (3)**

POLS 4360 - Classical Political Thought **Credits: (3)**

POLS 4380 - Modern Political Thought **Credits: (3)**

POLS 4600 - American Congress **Credits: (3)**

POLS 4620 - The U.S. Supreme Court **Credits: (3)**

POLS 4640 - American Presidency **Credits: (3)**

POLS 4750 - Public Policy Analysis **Credits: (3)**

PSY 3850 - Forensic Psychology **Credits: (3)**

SOC 4270 - Sociology of Law **Credits: (3)**

WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

### Area 2: Law Courses

BSAD 3200 - Legal Environment of Business **Credits: (3)**

CHF 3150 - Consumer Rights and Responsibilities **Credits: (3)**

COMM 3650 - Communication Law **Credits: (3)**

CJ 1330 - Criminal Law and Courts **Credits: (3)**

CJ 2350 - Laws of Evidence **Credits: (3)**

CJ 4165 - Constitutional Rights **Credits: (3)**

CJ 4700 - International Criminal Justice **Credits: (3)**

PHIL 3250 - Philosophy of Law **Credits: (3)**

POLS 3400 - Sexual Orientation, Politics, and Law **Credits: (3)**

POLS 4020 - American Constitutional Law I **Credits: (3)**

POLS 4030 - American Constitutional Law II **Credits: (3)**

POLS 4100 - Free Speech in Law and Politics **Credits: (3)**

POLS 4180 - International Law and Organization **Credits: (3)**

Note:

*Other courses may be approved by the program director on an individual basis.*

## **See also:**

International Politics Minor

Public Administration Minor

# **Linguistics Minor Program**

## **Linguistics Minor**

**Coordinator:** Mark LeTourneau

**Location:** Elizabeth Hall, Room 243

**Telephone:** 801-626-6386

The Linguistics Minor is an interdisciplinary program that introduces students the scientific study of language as a complement to a broad range of majors.

**Grade Requirements:** A grade of "C" or better is required for all courses used toward the minor (a grade of "C-" is not acceptable.)

**Credit Hour Requirements:** A total of 21 credit hours is required for this minor.

## **Course Requirements for Minor**

### 1. Foundation Course (3 credit hours)

ENGL 3010 - Introduction to Linguistics **Credits: (3)**

### 2. Language Structures Course (3-4 credit hours)

*Select one of the following*

CS 4110 - Concepts of Formal Languages and Algorithms for Computing **Credits: (4)**

ENGL 3030 - Structure of English **Credits: (3)**

ENGL 3050 - Grammar, Style, and Usage for Advanced Writing **Credits: (3)**

FL 3220 - Phonetics and Phonology **Credits: (3)**

FL 3360 - Advanced Grammar **Credits: (3)**

PHIL 2200 - Deductive Logic **Credits: (3)**

### 3. Sub-Disciplines and Applications of Linguistics Courses (6-7 credit hours)

*Select two of the following*

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

CS 4500 - Artificial Intelligence and Neural Networks **Credits: (4)**  
COMM 3000 - Communication Theory **Credits: (3)**  
COMM 3080 - Intercultural Communication **Credits: (3)**  
COMM 3090 - Gender and Communication **Credits: (3)**  
EDUC 4250 - Second Language Acquisition: Theories and Implementation **Credits: (3)**  
EDUC 4270 - Literacy Strategies for Teaching English Language Learners **Credits: (3)**  
ENGL 3040 - History of the English Language **Credits: (3)**  
ENGL 4410 - Strategies and Methodology of Teaching ESL/Bilingual **Credits: (3)**  
ENGL 4420 - English Phonology and Syntax for ESL/Bilingual Teachers **Credits: (3)**  
ENGL 4450 - ESL/Bilingual Assessment: Theory, Methods, and Practices **Credits: (3)**  
FL 3320 - Applied Language Studies **Credits: (1-3) \***  
FL 4340 - Foreign Language Acquisition and Teaching for Proficiency **Credits: (3)**  
PSY 3450 - Psychology of Language **Credits: (3)**

Note:

*\* "Applied Language Studies" shall be understood to include any version of FL 3320 whose linguistic content is at least 50%. The coordinator of the minor will make that determination in consultation with the chair of Foreign Languages and the Linguistics Minor Committee.*

#### 4. Electives (4-9 credit hours)\*

*Select either courses from the preceding areas 2 and 3 not counted for those areas, or in combination with (either or both of) the following LING courses:*

LING 4830 - Directed Readings in Linguistics **Credits: (1-3)**  
LING 4900 - Variable Topics in Linguistics **Credits: (1-3)**

Note:

*Other courses (seminars, etc.) may be accepted in the Electives group on an individual basis, as approved by the coordinator for the minor.*

*\* Students should select elective courses as appropriate to meet the 21 credit hour requirement. Nine hours of elective credit will be necessary if a student has substituted courses in a second or foreign language in the Language Structures requirement.*

#### 5. Capstone Course (3 credit hours)

LING 4830 - Directed Readings in Linguistics **Credits: (1-3)** (3 credit hours required) or  
LING 4990 - Centering Experience **Credits: (3)**

Note:

*Up to three hours required for a student's major or another minor (excluding strands in the BIS degree) may be counted toward the 21 hours required for the linguistics minor, consistent with the policies and requirements of the department, minor or program in question.*

*Students may take no more than eight hours with the same prefix (beyond the Foundations course).*

# Neuroscience Minor Program

## Neuroscience Minor

**Coordinator:** Dr. Lauren Fowler 801-626-7620

**Location:** Social Science 379

**Telephone Contact:** Rachel Budge 801-626-6293

Neuroscience is the interdisciplinary scientific study of the central and peripheral nervous systems in an effort to understand the biological basis of behavior, thinking, emotion, memory, and perception.

**Credit Hour Requirements:** A minimum of 19 credit hours as described below. *For advisement contact the Neuroscience Program Coordinator who will help you select courses which will compliment your major.*

**Grade Requirements:** A grade of "C" or better in courses used toward the Minor (a grade of "C-" is not acceptable).

## Course Requirements for Minor

*For advisement contact the Neuroscience Program Coordinator who will help you select courses which will compliment your major.*

To complete the Neuroscience Minor, the student must complete a minimum of 19 credit hours as follows: a) Introduction to Neuroscience (NEUR 2050), b) one course each from the three content areas (Cognitive/Behavioral, Cellular/Molecular, and Clinical/Medical), and c) 6 credits of electives. Students that have not already completed ZOOL 1110 LS - Principles of Zoology as part of their major will also need to complete this course before taking the Cellular and Molecular area requirement. Thus, completion of the Neuroscience Minor may require 23 credit hours for some students. With approval of the Neuroscience Program Director and the applicable Department Chair, students may apply credits from one of the required courses of either Area 3 or Area 5 towards both their minor and major to offset the number of prerequisites necessary for courses in these areas. Only one course total may be applied to the minor and major, and only after the appropriate approvals have been received.

### 1. Foundation Course

NEUR 2050 - Introduction to Neuroscience **Credits: (3)**

### 2. Cognitive and Behavioral Area: 1 of the below

NEUR 3750 - Cognitive and Behavioral Neuroscience **Credits: (3)** (Prereq: PSY 2730 or NEUR 2050)

PSY 2730 - Biopsychology **Credits: (3)** (Prereq: PSY 1010 or NEUR 2050)

PSY 3730 - Perception **Credits: (3)** (Prereq: PSY 1010 or NEUR 2050)

### 3. Cellular and Molecular Area: 1 of the below

ZOOL 3200 - Cell Biology **Credits: (4)** (Prereq: ZOOL 1110 and either CHEM 1110 and 1120 series or CHEM 1210 and 1220 series, or approval of instructor)

ZOOL 3300 - Genetics **Credits: (4)** (Prereq: ZOOL 1110 and MATH 1050 or equivalent, or approval of instructor)

ZOOL 4100 - Vertebrate Embryology **Credits: (4)** (Prereq: ZOOL 1110 and ZOOL 2220, or approval of instructor)

#### 4. Clinical and Medical Area: 1 of the below

HTHS 2240 - Introduction to Pharmacology **Credits: (3)** *Prerequisite: (Recommended) HTHS 1101, HTHS 1110 and HTHS 1111. Students taking HTHS 2240 cannot take HTHS 3240 for credit.*

**or**

HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**  
*Prerequisite: (Recommended) HTHS 1101, HTHS 1110 and HTHS 1111. Students taking HTHS 2240 cannot take HTHS 3240 for credit.*

NEUR 3850 - Clinical Neuroscience **Credits: (3)** *Prerequisite: NEUR 2050 or PSY 2730 or consent of instructor.*

PSY 3740 - Neuropsychopharmacology **Credits: (3)** *Prerequisite: NEUR 2050 or PSY 2730 or instructor approval.*

ZOOL 1020 LS - Human Biology **Credits: (3)**

ZOOL 2200 LS - Human Physiology **Credits: (4)**

#### 5. Electives: 6 credits minimum from the electives listed below

ANTH 1020 LS/DV - Biological Anthropology **Credits: (3)**

ANTH 1040 HU/DV - Language and Culture **Credits: (3)**

BTNY 2303 - Ethnobotany **Credits: (3)**

BTNY 2600 - Laboratory Safety **Credits: (1)**

EET 1110 - Basic Electronics **Credits: (2)**

EET 4040 - Signals and Systems **Credits: (4)**

CHEM 1050 PS - Introduction to General, Organic & Biochemistry **Credits: (5)**

CHEM 1120 - Elementary Organic Bio-Chemistry **Credits: (5)**

CHEM 2310 - Organic Chemistry I **Credits: (4)**

CHEM 2315 - Organic Chemistry I Lab **Credits: (1)**

CHEM 2320 - Organic Chemistry II **Credits: (4)**

CHEM 2325 - Organic Chemistry II Lab **Credits: (1)**

CHEM 2600 - Laboratory Safety **Credits: (1)** *(cross-listed with all science departments)*

CHEM 3070 - Biochemistry I **Credits: (3)**

CHEM 3080 - Biochemistry II **Credits: (3)**

CHEM 3090 - Biochemical Techniques **Credits: (1)**

CS 4500 - Artificial Intelligence and Neural Networks **Credits: (4)**

HLTH 3100 - Applications of Technology in Health Promotion **Credits: (3)**

HLTH 4013 - Health Promotion Research and Assessment **Credits: (3)**

HLTH 3160 - Principles of Health Behavior **Credits: (3)**

HTHS 1101 - Medical Terminology **Credits: (2)**

HTHS 1110 LS - Integrated Human Anatomy and Physiology I **Credits: (4)** and

HTHS 1111 - Integrated Human Anatomy and Physiology II **Credits: (4)**

HTHS 2230 - Introductory Pathophysiology **Credits: (3)**

HTHS 2240 - Introduction to Pharmacology **Credits: (3)** or

HTHS 3240 - Pharmacology Principles and Clinical Applications **Credits: (3)**

MICR 3254 - Immunology **Credits: (4)**

MICR 3305 - Medical Microbiology **Credits: (5)**

MICR 4154 - Microbial Genetics **Credits: (4)**

MICR 4252 - Cell Culture **Credits: (2)** *(cross-listed with Botany)*

MICR 4554 - Virology **Credits: (4)**

NEUR 4800 - Projects and Research **Credits: (1-3)**

NEUR 4830 - Directed Readings **Credits: (1-3)**

NEUR 4900 - Topics in Neuroscience **Credits: (2-3)**

PHIL 3350 - Medical Ethics **Credits: (3)**

PHYS 3190 - Applied Optics **Credits: (3)**

PHYS 3410 - Electronics for Scientists **Credits: (4)**

PHYS 3420 - Data Analysis, Statistics, and Instrumentation **Credits: (3)**  
 PSY 2730 - Biopsychology **Credits: (3)**  
 PSY 2830 - Directed Readings **Credits: (1-3)** (3 credit hours required)  
 PSY 3010 - Abnormal Psychology **Credits: (3)**  
 PSY 3730 - Perception **Credits: (3)**  
 PSY 3740 - Neuropsychopharmacology **Credits: (3)**  
 PSY 4800 - Projects and Research **Credits: (1-3)** \* ‡  
 PSY 4830 - Directed Readings **Credits: (1-3)** \* ‡  
 PSY 4900 - Selected Topics in Psychology **Credits: (2-3)** \* ‡  
 PSY 4910 - Senior Thesis **Credits: (3)** \* ‡  
 ZOO 1020 LS - Human Biology **Credits: (3)**  
 ZOO 2100 - Human Anatomy **Credits: (4)**  
 ZOO 2200 LS - Human Physiology **Credits: (4)**  
 ZOO 3200 - Cell Biology **Credits: (4)**  
 ZOO 3300 - Genetics **Credits: (4)**  
 ZOO 3600 - Comparative Physiology **Credits: (4)**  
 ZOO 4050 - Comparative Vertebrate Anatomy **Credits: (4)**  
 ZOO 4100 - Vertebrate Embryology **Credits: (4)**  
 ZOO 4120 - Histology **Credits: (4)**  
 ZOO 4220 - Endocrinology **Credits: (4)**  
 ZOO 4300 - Molecular Genetics **Credits: (4)**  
 ZOO 4350 - Animal Behavior **Credits: (4)**  
 ZOO 4800 - Problems in Zoology **Credits: (1-4)** \*\* ‡  
 ZOO 4830 - Readings in Zoology **Credits: (1-4)** \*\* ‡  
 ZOO 4900 - Topics in Zoology **Credits: (1-4)** \*\* ‡  
 ZOO 4920 - Short Courses, Workshops, Institutes and Special Programs **Credits: (1-4)** ‡

**\*Prerequisites:**

SS PSY 1010, PSY 3600 (Statistics), and PSY 3610 (Research Methods) or equivalent, and faculty mentor permission.

**\*\*Prerequisites:**

LS ZOO 1110 and ZOO 2220, and approval of instructor.

**‡Note:**

‡These courses must have a significant neuroscience focus in order to qualify as an elective towards the neuroscience minor; approval by the Neuroscience Program Director is required in advance.

**Note:**

*Consult the WSU course catalog for prerequisites to the elective courses listed above.*

# Urban and Regional Planning Emphasis

## Urban and Regional Planning Emphasis (BIS)

**Coordinator:** Dr. Bryan Dorsey

**Location:** Social Science Building, Room 314

**Telephone:** 801-626-6944

This program provides a special emphasis in Urban and Regional Planning for majors in Botany, Sociology, Geography, Geosciences, Microbiology, Politics, Economics, Zoology, and related fields. The planning emphasis offers students a background in planning by adding a set of core courses to the major of their choice. This allows each student to pursue his discipline and still gain a general understanding of the field of planning.

**Grade Requirements:** A grade of "C" or better is required for all courses in Urban and Regional Planning (a grade of "C-" is not acceptable).

**Credit Hour Requirements:** A minimum of 18 credit hours.

## Urban and Regional Planning Emphasis

Courses Required (6 credit hours)

GEOG 4410 - Sustainable Land Use Planning **Credits: (3)**

GEOG 4420 - Advanced Urban and Regional Planning **Credits: (3)**

Electives (12 credit hours)

*For students completing both a major and a minor, the requirements of the major field will be reduced by fifteen hours. They will be replaced by 12 hours of interdisciplinary courses selected outside the major field from the following.*

BTNY 1403 LS - Environment Appreciation **Credits: (3-4)** (3 credit hours required)

GEOG 3450 - Introduction to Cartography and GIS **Credits: (3)**

GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**

GEOG 3210 - Urban Geography **Credits: (3)**

GEOG 3360 - Economic Geography **Credits: (3)**

GEO 4150 - Environmental Assessment **Credits: (3)**

GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**

MICR 1153 LS - Elementary Public Health **Credits: (3)**

POLS 3700 - Bureaucratic Politics **Credits: (3)**

POLS 3750 - Urban Government and Politics **Credits: (3)**

SOC 3840 - Cities and Urban Life **Credits: (3)**

SOC 3850 - Race & Ethnicity **Credits: (3)**

SOC 3300 - Environment and Society **Credits: (3)**

Note:

*And a basic statistics course taken in a department of the student's choice.*

*For students who wish to complete the Planning Emphasis Program in lieu of a minor, GEOG 4410 and GEOG 4420 will be required as well as 12 hours of interdisciplinary courses from the above list outside the major field.*

*Other courses related to land use planning not listed here are acceptable with approval of advisor. This includes courses transferred in from other colleges or universities and any directed reading or individual research courses in any department where the topic deals primarily with land use planning.*

# Urban and Regional Planning

**Coordinator:** Dr. Bryan Dorsey

**Location:** Social Science Building, Room 314

**Telephone:** 801-626-6944

This program provides a special emphasis in Urban and Regional Planning for majors in Botany, Sociology, Geography, Geosciences, Microbiology, Politics, Economics, Zoology, and related fields. The planning emphasis offers students a background in planning by adding a set of core courses to the major of their choice. This allows each student to pursue his discipline and still gain a general understanding of the field of planning.

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GEOG 3460 - Advanced Cartography and GIS **Credits: (3)**

GEOG 3210 - Urban Geography **Credits: (3)**

GEOG 3360 - Economic Geography **Credits: (3)**

GEO 4150 - Environmental Assessment **Credits: (3)**

GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems **Credits: (4)**

MICR 1153 LS - Elementary Public Health **Credits: (3)**

POLS 3700 - Bureaucratic Politics **Credits: (3)**

POLS 3750 - Urban Government and Politics **Credits: (3)**

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SOC 3850 - Race & Ethnicity **Credits: (3)**

SOC 3300 - Environment and Society **Credits: (3)**

Note:

*And a basic statistics course taken in a department of the student's choice.*

*For students who wish to complete the Planning Emphasis Program in lieu of a minor, GEOG 4410 and GEOG 4420 will be required as well as 12 hours of interdisciplinary courses from the above list outside the major field.*

*Other courses related to land use planning not listed here are acceptable with approval of advisor. This includes courses transferred in from other colleges or universities and any directed reading or individual research courses in any department where the topic deals primarily with land use planning.*

# Women & Gender Studies Minor Program

**Coordinator:** Dr. Melina Alexander

**Location:** Social Sciences Building, Rooms 301/303

**Telephone Contact:** Tami Snell 801-626-7632

Women & Gender Studies is a minor program, and Bachelor of Integrated Studies area of emphasis, which offers interdisciplinary, scholarly perspectives on the formation of gender and its critical intersections with other relations of power such as sexuality, race, ethnicity, class, nationality, religion, and age.

Faculty and students address questions within the context of a transnational world and from different disciplines, such as, but not limited to, history, literature, sociology, communication, psychology, criminal justice, social work, political sciences, and cultural studies.

**Program Prerequisite:** A student's program of study for the Women & Gender Studies Minor must be approved by the Women & Gender Studies Coordinator.

**Grade Requirements:** A grade of "C" or better is required for all courses used toward the minor (a grade of "C-" is not acceptable.)

**Credit Hour Requirements:** A total of 21 credit hours is required for this minor, 15 credits from core courses and 6 from electives.

## Course Requirements for Minor

### Women and Gender Studies Courses Required (15 credit hours)

WGS 1500 SS/DV - Introduction to Women and Gender Studies **Credits: (3)**

WGS 2500 SS/DV - Human Rights in the World **Credits: (3)**

WGS 3050 - Introduction to Feminist Theories 1700 -- Present **Credits: (3)**

WGS 4150 - Research Methodologies **Credits: (3)**

WGS 4250 - Community-Based Research/Internship **Credits: (3)**

### Electives (6 credit hours)

*A total of 6 credit hours of electives chosen in consultation with the Women and Gender Studies Coordinator. Electives may include up to 3 credit hours of Directed Readings.*

COMM 3090 - Gender and Communication **Credits: (3)**

ENGL 2710 HU/DV - Perspectives on Women's Literature **Credits: (3)**

FL 3670 - Literature Authors **Credits: (3)**

GERT 3320 - Ethnicity and Older Women in the American Society **Credits: (3)**

HIST 3070 - Women in American History: 1600 to Present **Credits: (3)**

PSY 2370 - Psychology of Women and Gender **Credits: (3)**

PSY 3100 - Psychology of Diversity **Credits: (3)**

SOC 3130 - Sociology of Gender **Credits: (3)**

WGS 2900 - Topics in Women's Studies **Credits: (1-3)** or

WGS 4900 - Topics in Women's Studies **Credits: (1-3)**

WGS 4830 - Directed Readings **Credits: (1-3)**

Note:

*Should other courses relating specifically to Women or Gender Studies, either of an experimental or of a permanent nature, be added to the curriculum, these courses will be accepted as electives for the Women and Gender Studies Minor Program.*

# WSU Davis

## **Dr. Bruce Davis, Vice Provost and Dean**

**Telephone:** 801-395-3482

**Email:** [brucedavis@weber.edu](mailto:brucedavis@weber.edu)

**Location:** 2750 University Park Boulevard, Layton, UT 84041 (*Directions*) (*Map*)

**Telephone Contact:** Margaret Rickards, 801-395-3536

**Email:** [margaretrickards@weber.edu](mailto:margaretrickards@weber.edu)

The WSU Davis Campus provides a wide range of higher educational opportunities to the residents of Davis County and surrounding areas. With a population of over 330,000 residents, Davis County is Utah's third largest county. It is also home to Hill Air Force Base, Utah's largest employer. Davis County residents comprise approximately 39 percent of the student body at Weber State University. In addition to providing learning opportunities close to where these students live and work, the Davis Campus is an integral part of the larger community, enriching the social, cultural and economic lives of the citizens of Davis County.

From its 110 acre campus in Layton, WSU Davis offers a full range of general education courses and a wide range of associate's, bachelor's, and master's degrees. Information about degree and certificate programs available at WSU Davis can be found on the web at [weber.edu/Davis](http://weber.edu/Davis). Students may take classes at both the Davis Campus and the Ogden Campus concurrently, depending upon their needs and schedule. One of the hallmarks of the Davis Campus is the special attention given to meeting the needs of military, veteran, nontraditional, and working students.

The Davis Campus provides a complete university experience for students, using both visiting and resident faculty to provide instruction and advisement. Extensive student services and support activities are also available, including computer classrooms, computer laptop lounge, and a 68 workstation computer lab, a library, bookstore, testing center, enrollment services, academic advisement, academic support, financial aid counseling, tutoring, student activities, a health center, counseling services, a fitness center, event spaces and dining and a wide range of other student services.

The Davis Campus is also home to the Northern Utah Academy for Math, Engineering and Science (NUAMES), an early college charter high school that works in partnership with Weber State University.

## **Degree Paths at WSU Davis**

### **Master Degrees**

Accounting

Business Administration

Health Administration

MBA/MHA

Respiratory Therapy

Taxation

### **Associate Degrees**

Computer Science

Construction Management Technology

Criminal Justice

General Studies

Interior Design

Management Information Systems

Nursing

## **Bachelor Degrees**

Construction Management Technology,  
emphasis in Facilities Management Technology

Family Studies

Interior Design

Management Information Systems

Nursing

Respiratory Therapy

## **Graduate Certificates**

Environmental Sustainability for Business

Management Information Systems Information Assurance

## **Enrollment Services**

*Kelly Simerick, Associate Director, Enrollment Services Davis Campus*

**Telephone:** 801-395-3480

**Location:** Bldg. D2, Suite 241

**Web Site:** [weber.edu/wsudavis/enrollmentservices.html](http://weber.edu/wsudavis/enrollmentservices.html)

Enrollment Services at the Davis Campus offers a one stop shop that provides assistance in the following areas:

- Admissions
- General Studies Academic Advisement
- Early College
- Financial Aid/ Scholarships
- Records
- Registration
- Residency

## **Library**

*Misty Allen, Supervisor*

**Telephone:** 801-395-3472

**Location:** Bldg. D2, Room 212 (Information Commons)

To be successful in a global information society, students must understand how to access, use and critically evaluate information. The librarians provide instruction and a full range of information, circulation, and interlibrary loan services that enable students to effectively access and utilize digital and print information resources to meet their academic, professional and lifelong learning needs.

## **Wildcat Stores**

### **Bookstore**

*Scott Bitton, Manager*

**Telephone:** 801-395-3487

**Location:** Bldg. D2, Room 201

- Textbooks
- Cashier services
- Computers and technology
- General books & gifts
- Campus apparel and memorabilia
- Classroom supplies
- Snack foods

## **Waldo's Food Services**

*Bicknell Robbins, Manager*

*Trinity Steffensen, Executive Chef*

**Telephone:** 801-395-3576

**Location:** Bldg. D3, Room 120

**Email:** [waldoscatering@weber.edu](mailto:waldoscatering@weber.edu)

Waldo's Bistro  
Waldo's Catering  
Waldo's C-Store

## Student Health Center

**Telephone:** 801-395-3521

**Location:** Bldg. D2, Room 220

Provides quality, cost-effective health services for students, including:

Outpatient medical care for common illnesses and injuries  
Medical consultation regarding health promotion and disease prevention  
Referrals for specialty care needs

*For further information, check the website at [weber.edu/healthcenter](http://weber.edu/healthcenter)*

## **Student Involvement & Leadership**

*Erik Ashby, Coordinator*

**Telephone:** 801-395-3514

**Location:** Bldg. D3, Suite 221

**Web Site:** [weber.edu/studentinvolvement](http://weber.edu/studentinvolvement)

Assists students in expanding and enriching their holistic student experience  
Provides an environment for students to learn and practice leadership skills  
Provides an environment for students to meet, organize and share common interests  
The Student Programming Board plans and implements social, service, cultural and educational programs  
Leadership opportunities include:  
Leadership Development Programs  
Student Programming and Events  
Student Organizations  
Student Volunteer Opportunities

## **Davis Learning Support and Student Services**

*Leslie Loeffel, Director*

**Telephone:** 801-395-3569

**Location:** Bldg. D2, Room 213 (Information Commons)

**Web Site:** [weber.edu/dlc](http://weber.edu/dlc)

## Davis Learning Center Tutoring

Peer tutoring is offered in a range of subjects  
Both drop-in hours and appointments are available  
Tutors support developmental math students in the Davis Hub  
Tutors are certified through the College Reading and Learning Association (CRLA)

### Supplemental Instruction

Supplemental Instruction (SI) provides study groups for historically difficult courses  
Facilitators are trained student leaders who have successfully completed the course  
SI stresses how to learn as well as what to learn

### Student Services

Wildcard/UTA passes are issued

Advising/Counseling Services are offered from the following departments:

- Career Services
- Center for Multicultural Excellence
- Counseling & Psychological Services
- Disability Services
- Nontraditional Student Center (advising)
- Nontraditional Student Center, 801-395-3464, D2 307
- Veterans Services
- Veterans Upward Bound

### Testing Center, Telephone: 801-395-3495, Location: Bldg. D3 Room 231

Administers chi-tester and paper-and-pencil course work tests

The Testing Center also offers testing for English/math placement, online and independent study courses, and community exams such as the Police Officer Selection Test (POST) and DSST.

### Computer Lab, Telephone: 801-395-3492

The computer lab in Bldg. D2 consists of computer workstations with dual monitors, a LaserJet printer, a color printer, a scanner, and various software platforms

Laptop computers can be borrowed for on-campus use at the D2 computer lab or at the laptop lounge in Bldg. D3

### **Northern Utah Academy for Math, Engineering, and Sciences (NUAMES)**

*Kelli K. Booth, Principal*

**Telephone:** 801-395-3353

**Location:** Bldg. D3, Suite 316

**Web Site:** [NUAMES.org](http://NUAMES.org)

NUAMES is an early college high school that offers students the opportunity for a rigorous and supportive early college experience on a university campus. NUAMES focuses on STEM education: science, technology, engineering and math. NUAMES is a public state charter school composed of grades 10-12, and is consistently ranked as one of the top performing high schools in the state of Utah.

Fully accredited high school

Partnership with Weber State University

Early college scholarships available to qualified students

Opportunity to earn associate's degree upon graduation from NUAMES

## **State GEAR UP College Access Program**

*Andrea Curtis, State GEAR UP Partnership Director*

**Telephone:** 801-395-3547

**Location:** Bldg. D2, Room 308

GEAR UP (Gaining Early Awareness & Readiness for Undergraduate Programs) provides college readiness support for targeted students in the Weber and Davis school districts. First Year services are also provided for GEAR UP students pursuing post-secondary education. The GEAR UP program includes the following services:

- Financial Aid/Scholarship Advising
- FAFSA Completion
- ACT Preparation
- Academic Enrichment
- Campus Visits
- Family Outreach

## **Campus Recreation**

**Telephone:** 801-395-3422

**Location:** Bldg. D3, Room 150

**Web Site:** [weber.edu/campusrecreation](http://weber.edu/campusrecreation)

The mission of WSU Campus Recreation is to encourage lifelong learning, develop healthy active lifestyles, foster leadership, build a diverse community, and enhance interpersonal relationships. This is accomplished by providing quality facilities and experiential education through dynamic programming that focuses on WSU students, faculty/staff, and the greater community. We create opportunities that inspire engagement in healthy, active lifestyles!

### **Program Areas:**

- Aquatics & Safety (drop-in swim, Swimming Lessons, CPR/AED/First Aid certification classes)
- Fitness (drop-in strength and cardio equipment, drop-in Group Exercise classes, Personal Fitness Training)
- Intramural Sports (tournament and league play)
- Outdoor Program (Equipment Rental Center, Trips and Clinics, Challenge Course, drop-in climbing wall activities)
- Sport Clubs (student-led teams from Archery to Wrestling)
- Special Events (Turkey Triathlon, Mt. Ogden Hike, Dive-in Movies, Ogden Climbing Festival)

# **Division of Online & Continuing Education**

## **Dr. Bruce Davis, Vice Provost and Dean**

The Division of Online & Continuing Education seeks to extend lifelong learning opportunities beyond the traditional campus using innovative, collaborative and flexible approaches to meet the needs of students and other stakeholders. The Division works collaboratively with academic colleges and departments to deliver evening and weekend courses at the Ogden campus, daytime and evening courses at the Davis campus and several off-campus centers and through WSU Online. The Division also administers the Concurrent Enrollment Program, distance learning and independent study courses, and a wide range of professional development and community education programs.

**Location:** Hurst Center for Lifelong Learning - 1265 Village Dr. DEPT 4006, UT 84408-4006

**Telephone:** 801-626-6600 or toll-free 800-848-7770, option 4

**Web Site:** [weber.edu/oce](http://weber.edu/oce)

## **Programs**

Online & Continuing Education offers both credit and non-credit programs. Credit programs focus on courses related to degree attainment while non-credit programs provide professional training, certification, and personal enrichment.

Credit program staff members work with academic units to provide expanded educational options that bridge gaps and eliminate barriers in achieving each student's educational goals.

### Credit Programs:

- Concurrent Enrollment
- Evening Classes
- WSU Online
- Independent Study
- Accelerated Hybrid Classes
- Off-Campus Centers

### Non-Credit Programs:

- Community Education
- Conferences and Workshops
- Law Enforcement Academy
- Professional Development
- Youth Camps

## **Locations:**

- WSU West Center in Roy
- WSU Morgan Center
- Weber State Farmington Station at Station Park in Farmington
- WSU Community Education Center in Ogden
- WSU Center for Continuing Education in Clearfield
- Weber State Downtown in Ogden

# **Career and Technical Education Programs**

## **Career and Technical Education Programs**

**Director:** *Julie Snowball 801-395-3473*

Career and technical education includes programs that focus on job preparation. These programs, listed below, prepare students with a technical skill, license, certificate, or associate's degree upon completion of the program. The type of degree and the specific requirements for each program are outlined in departmental listings. Visit [weber.edu/cte](http://weber.edu/cte) for full program listing.

### **Applied Science & Technology**

- Apprenticeship (AAS)
- Automotive Service Technology (AAS)
- Web and User Experience (AAS)
- Computer Science (AAS)
- Construction Management Technology (AAS)

Product Design and Development: An Engineering Technology (AAS)  
Electronics Engineering Technology (AAS)  
General Technology (AAS)  
Interior Design Technology (AAS)  
Manufacturing Engineering Technology (AAS)  
Mechanical Engineering Technology (AAS)  
Network Management Technology (AAS)  
Pre-Engineering (APE)  
Sales and Merchandising (AAS)

**Business & Economics**

Management Information Systems (AS)

**Education**

Early Childhood (AAS)

**Health Professions**

Dental Hygiene (AS)  
Paramedic Studies (AAS)  
Emergency Medical Technician EMT and Advanced Certification  
Healthcare Coding & Classification Certificate of Proficiency  
Health Information Technology (AAS)  
Health Sciences (AS)  
Medical Laboratory Sciences (AAS)  
Nursing (AS)  
Diagnostic Medical Sonography (BS)  
Nuclear Medicine (BS)  
Radiation Therapy (BS)  
Radiography (AAS)  
Respiratory Therapy, Pre-Professional (AAS)

**Science**

Biotechnician (AS)  
Chemical Technician (AAS)  
Geospatial Analysis Certificate of Proficiency

**Social & Behavioral Sciences**

Archaeological Technician (AAS)  
Criminal Justice (AS)

## [More Student Services](#)

### **Center for Instructional and Institutional Effectiveness**

<http://www.weber.edu/ciie>

**Executive Director:** *Gail Niklason, 801-626-8586*

The Center provides faculty professional development opportunities, instructional design services and support, LMS administration and support, and academic software assessment development and support. Responsibilities for institutional effectiveness include research design and analysis and extend to oversight of the processes of academic program review, annual evidence-of-learning reporting, and support for NWCCU accreditation efforts.

Director, Institutional Effectiveness - Heather Chapman

Director, eLearning - Andrea Jensen

Director, Academic Software Design & Development - position currently open

### **Innovation & Economic Development**

**Director:** *Brandon Stoddard*

**Location:** *Weber State Downtown, Rm 211, 801-626-7232*

Innovation & Economic Development in the Provosts Office at Weber State University fosters a broad and continuing partnership between business, government agencies, and Innovation & Economic Development. Innovation & Economic Development promotes business and economic development in the community and serves as a community resource for entrepreneurship and small business management. As a service organization, Innovation & Economic Development provides business technical assistance, training and education, and information to businesses and government agencies. Specific programs and services of the Center is listed below.

#### **Small Business Development Center**

The Small Business Development Center (SBDC) is a partnership between Weber State University, the U.S. Small Business Administration, and the Utah Governor's Office of Economic Development. The SBDC provides counseling, training, and resource referral for individuals from Northern Utah looking to start, grow or exit small business endeavors. The Center provides a wide variety of seminars, workshops and courses for free or a low fee. Consulting is free of charge and covers areas such as business assessment and planning, market research and marketing strategy, financial analysis and forecasting, debt and equity funding development, ecommerce, and human resource management. For additional information see <https://www.weber.edu/sbdc/>.

#### **Small Business Institute**

The Small Business Institute (SBI) uses teams of senior-level or graduate students to provide management consulting and technical assistance to small business concerns. Students participating in the program receive university credit and the opportunity to apply their knowledge and skills in a real world setting. Participating businesses receive management assistance at no charge.

### **Office of International Programs**

[Dr. Cliff Nowell, Dean of Office of International Programs](#)

International Programs - <http://www.weber.edu/internationalprograms>

International Student Center - [weber.edu/sis/](http://weber.edu/sis/)

ESL/LEAP - [weber.edu/leap](http://weber.edu/leap)

Study Abroad - [weber.edu/studyabroad](http://weber.edu/studyabroad)

The Office of International Programs is your resource to the many international opportunities at Weber State University. The office of International Programs includes the International Student and Scholar Center, the Learning English for Academic Purposes (LEAP) department and the Office of Study Abroad and Exchanges.

**Location:** *Student Services Building Room 174 - 3910 West Campus Dr, Ogden, UT 84408-4013*

**Telephone:** *801-626-7521*

**Web Site:** *weber.edu/internationalprograms*

#### International Student and Scholar Center (ISSC)

**Director:** *Mary Machira, 801-626-6839*

The International Student and Scholar Center advises and assists international students with their personal, cultural, and academic adjustment to WSU, and is responsible for the recruitment, admission, and retention of international students. Services include providing support for admission, student visas, orientation, housing, transportation, and other assistance. Advisement is available to assist students concerning immigration related questions and concerns. Information for the ISSC can be found at <http://www.weber.edu/sis/>

#### Learning English for Academic Purposes (LEAP)

**Chair:** *Debi Sheridan, 801-626-6775*

The LEAP department provides intensive English language courses (ESL) for students in the process of acquiring English as a second language for academic use. LEAP courses are taught in Elizabeth Hall on the WSU Ogden Campus. See the full program description in the Interdisciplinary Programs section or visit [weber.edu/leap](http://weber.edu/leap).

#### Travel Study: Office of Study Abroad and Exchanges

**Director of Study Abroad and Exchanges:** *Rebecca Schwartz, 801-626-8740*

Students who have experienced living and learning in the social and educational environment of another culture will be broadened in ways impossible to achieve on an American campus. The Office of Study Abroad and Exchanges will provide you with information on the study abroad and exchange programs available and help you prepare for a unique learning experience. See [weber.edu/studyabroad](http://weber.edu/studyabroad).

## Course Descriptions

### **ACTG 1010 - Practical Accounting & Taxes**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

A pragmatic look at financial accounting and federal taxes as they relate to the individual's personal life. Designed for non-accounting majors.

### **ACTG 2010 - Survey of Accounting I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, 1st Blk, Full Sem Online]**

Introduction to accounting information, the basic accounting cycle, and consideration of selected financial statement topics. The course emphasizes the uses and limitations of accounting information in economic decision-making, as well as problem-solving, oral and written communication skills, and computer skills.

### **ACTG 2020 - Survey of Accounting II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, 2nd Blk, Full Sem Online]**

Further consideration of selected financial statement topics. Analysis of cost behavior and the uses and limitations of accounting information in planning, controlling, and decision-making processes. Emphasizes skills in problem-solving, oral and written communication, and computer skills. Prerequisite: ACTG 2010.

### **ACTG 2891 - Coop Work Experience**

**Credits: (1, 2, 3)**

Open to students meeting criteria established from time to time by the department and on file either in the department or the cooperative education office. Provides academic credit for selected on-the job experience. Grade and amount of credit will be determined by the department. Prerequisite: Instructor Approval.

### **ACTG 2892 - Coop Work Experience**

**Credits: (1, 2, 3)**

Open to students meeting criteria established from time to time by the department and on file either in the department or the cooperative education office. Provides academic credit for selected on-the job experience. Grade and amount of credit will be determined by the department. Prerequisite: Instructor Approval.

### **ACTG 2893 - Coop Work Experience**

**Credits: (1, 2, 3)**

Open to students meeting criteria established from time to time by the department and on file either in the department or the cooperative education office. Provides academic credit for selected on-the job experience. Grade and amount of credit will be determined by the department. Prerequisite: Instructor Approval.

### **ACTG 2921 - Short Courses, Workshops, Institutes, & Special Programs**

**Credits: (1, 2, 3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **ACTG 2922 - Short Courses, Workshops, Institutes, & Special Programs**

**Credits: (1, 2, 3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **ACTG 2923 - Short Courses, Workshops, Institutes, & Special Programs**

**Credits: (1, 2, 3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **ACTG 3110 - Intermediate Financial Accounting I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Introduction to the accounting profession, standard-setting process, and financial accounting concepts. Thorough study of the balance sheet, income statement, and statement of retained earnings. Theory and application of the time value of money. Financial accounting and reporting considerations for selected balance sheet topics. Prerequisite: ACTG 2020.

### **ACTG 3120 - Intermediate Financial Accounting II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Thorough study of the statement of cash flows. Financial accounting and reporting considerations for selected balance sheet topics not considered in Intermediate Financial Accounting I. Prerequisite: BSAD 2899, ACTG 3110.

### **ACTG 3300 - Cost Accounting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Cost determination for budgeting, product costing, process costing, cost assignment and allocation, standard costing, and decision making in manufacturing and service organizations. Prerequisite: BSAD 2899, ACTG 2020.

### **ACTG 3400 - Taxation of Individuals**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Basic concepts of gross income, deductions, credits, special computations, and property transactions for individual taxpayers. Prerequisite: ACTG 2020.

### **ACTG 3500 - International Accounting**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course reviews major issues in international accounting, including historical, cultural, and environmental influences that impact various national accounting systems. Harmonization of standards is also examined. Prerequisite: ACTG 2020.

### **ACTG 3750 - Accounting & Information Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Analysis, design, and implementation of accounting information systems with special emphasis on an understanding of accounting cycles, internal control concepts, and data flows associated with basic economic entities of the organization. Prerequisite: BSAD 2899, ACTG 3110.

### **ACTG 4130 - Advanced Accounting**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

A study of business combination accounting. The course will also include an introduction to government and fund accounting. Prerequisite: BSAD 2899, ACTG 3120.

### **ACTG 4140 - Accounting for Global and Complex Entities**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Issues in international accounting not covered in Intermediate Accounting are covered in this course. The course also covers concepts related to accounting for complex entities, consolidated entities and partnerships. Prerequisite: ACTG 3120 and BSAD 2899.

### **ACTG 4440 - Taxation of Business Entities**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A study of the income taxation of corporations (including S corporations), limited liability companies, and partnerships. Prerequisite: BSAD 2899, ACTG 3400.

### **ACTG 4510 - Auditing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Generally-accepted auditing standards, professional responsibilities, evidence, internal control, sampling, audit tests, and audit reports. Prerequisite: BSAD 2899, ACTG 3120 or concurrent enrollment in ACTG 3120.

### **ACTG 4801 - Individual Study**

**Credits: (1, 2, 3)**

Individual work or work in small groups by arrangement on special topics. Prerequisite: Instructor Approval.

### **ACTG 4802 - Individual Study**

**Credits: (1, 2, 3)**

Individual work or work in small groups by arrangement on special topics. Prerequisite: Instructor Approval.

### **ACTG 4803 - Individual Study**

**Credits: (1, 2, 3)**

Individual work or work in small groups by arrangement on special topics. Prerequisite: Instructor Approval.

### **ACTG 4810 - Experimental Courses**

**Credits: (1-3)**

Experimental or one-time courses designed to fill a need in the community or investigate interesting and unusual topics.

### **ACTG 4850 - Accounting Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore accounting theory and practice in countries other than the U.S. Students will study international accounting as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. Can be repeated once up to 6 credits.

### **ACTG 4891 - Coop Work Experience**

**Credits: (1, 2, 3)**

Open to students meeting criteria established from time to time by the department and on file either in the department or the cooperative education office. Provides academic credit for selected on-the-job experience. Grade and amount of credit will be determined by the department. Prerequisite: Instructor Approval.

### **ACTG 4892 - Coop Work Experience**

**Credits: (1, 2, 3)**

Open to students meeting criteria established from time to time by the department and on file either in the department or the cooperative education office. Provides academic credit for selected on-the job experience. Grade and amount of credit will be determined by the department. Prerequisite: Instructor Approval.

### **ACTG 4893 - Coop Work Experience**

**Credits: (1, 2, 3)**

Open to students meeting criteria established from time to time by the department and on file either in the department or the cooperative education office. Provides academic credit for selected on-the job experience. Grade and amount of credit will be determined by the department. Prerequisite: Instructor Approval.

### **ACTG 4921 - Short Courses, Workshops, Institutes, & Special Programs**

**Credits: (1, 2, 3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **ACTG 4922 - Short Courses, Workshops, Institutes, & Special Programs**

**Credits: (1, 2, 3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **ACTG 4923 - Short Courses, Workshops, Institutes, & Special Programs**

**Credits: (1, 2, 3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **AERO 1010 - Foundations of USAF I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Development, organization, and doctrine of the United States Air Force, emphasizing Strategic Force Requirements.

### **AERO 1010L - General Military Leadership Lab I**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem]**

Studies and experience in Air Force standards, customs and courtesies. Introduction to drill and ceremonies. Studies typical organizations and missions of Air Force Bases through field trips.

### **AERO 1011 - Foundations of USAF II**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Development and organization of United States Air Force Defensive Forces, General Purpose Forces and Tactical Air Forces.

### **AERO 1011L - General Military Leadership Lab II**

**Credits: (0)**  
**Typically taught:**  
**Spring [Full Sem]**

Studies and experience in Air Force standards, customs and courtesies. Introduction to drill and ceremonies. Studies typical organizations and missions of Air Force Bases through field trips.

### **AERO 1110 - General Military Leadership Lab I**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Studies and experience in Air Force standards, customs and courtesies. Introduction to drill and ceremonies. Studies typical organizations and missions of Air Force Bases through field trips.

### **AERO 1111 - General Military Leadership Lab II**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Studies and experience in Air Force standards, customs and courtesies. Introduction to drill and ceremonies. Studies typical organizations and missions of Air Force Bases through field trips.

### **AERO 2010 - Airpower History I**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**

Development of various concepts of air power employment, emphasizing factors that have prompted research and technological change.

### **AERO 2010L - General Military Leadership Lab III**

**Credits: (0)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of Air Force standards, customs and courtesies. Drill and ceremonies leadership, introduction to reviews and honors. First-hand exposure to various career opportunities within the Air Force and their application on a typical Air Force base.

## **AERO 2011 - Airpower History II**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Development of various concepts of air power employment, emphasizing factors that have prompted research and technological change.

## **AERO 2011L - General Military Leadership Lab IV**

**Credits: (0)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of Air Force standards, customs and courtesies. Drill and ceremonies leadership, introduction to reviews and honors. First-hand exposure to various career opportunities within the Air Force and their application on a typical Air Force base. Professional Officer Courses

## **AERO 2110 - General Military Leadership Lab III**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**

Application of Air Force standards, customs and courtesies. Drill and ceremonies leadership, introduction to reviews and honors. First-hand exposure to various career opportunities within the Air Force and their application on a typical Air Force base.

## **AERO 2111 - General Military Leadership Lab IV**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of Air Force standards, customs and courtesies. Drill and ceremonies leadership, introduction to reviews and honors. First-hand exposure to various career opportunities within the Air Force and their application on a typical Air Force base.

## **AERO 2830 - Directed Studies**

**Credits: (1-3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Individual study with a professor from Aerospace Studies (Air Force ROTC). Allows increased responsibility for GMC in an academic setting providing leadership/management skill development opportunities. May be repeated twice with a maximum of 3 credit hours.

## **AERO 3000 - Field Training**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

Four to five weeks of field training conducted at United States Air Force bases as arranged by the Professor of Aerospace Studies. Course prepares AFROTC students for entry into upper division AFROTC classes, the Professional Officer Corps, and for later commissioning into the US Air Force. The course offers a minimum of 269 hours of education and training in the areas of Officership, Air Force Orientation, Leadership, and Physical/Survival Training. May be repeated 3 times with a maximum of 4 credit hours.

## **AERO 3010 - Leadership Studies I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Writing, speaking, and listening as communication skills; management concepts; responsibilities and ethics for an Air Force junior officer.

## **AERO 3010L - POC Leadership Lab I**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem]**

Application of leadership and management skills in leadership positions in a student-run organization. Study of general structure and progression patterns common to selected Air Force officer career fields. Application of personnel performance evaluation techniques.

## **AERO 3011 - Leadership Studies II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Principles of leadership, problem solving, decision, discipline, and human relations. Emphasis on career planning as an Air Force junior officer.

## **AERO 3011L - POC Leadership Lab II**

**Credits: (0)**

**Typically taught:**

**Spring [Full Sem]**

Application of leadership and management skills in leadership positions in a student-run organization. Study of general structure and progression patterns common to selected Air Force officer career fields. Application of personnel performance evaluation techniques.

### **AERO 3110 - POC Leadership Lab I**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of leadership and management skills in leadership positions in a student-run organization. Study of general structure and progression patterns common to selected Air Force officer career fields. Application of personnel performance evaluation techniques.

### **AERO 3111 - POC Leadership Lab II**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of leadership and management skills in leadership positions in a student-run organization. Study of general structure and progression patterns common to selected Air Force officer career fields. Application of personnel performance evaluation techniques.

### **AERO 4010 - National Security Affairs I**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Examines the need for national security, analyzes the evolution and formulation of American defensive policy, strategy and joint doctrine. Investigates methods of managing conflict and touches on arms control and terrorism.

### **AERO 4010L - POC Leadership Lab III**

**Credits: (0)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of leadership and management techniques with individuals and groups. Introduction to operations and communications security. Introduction to advanced educational opportunities available to Air Force officers.

### **AERO 4011 - National Security Affairs II**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Examines conflict management, arms control, military law and Air Force issues and policies.

### **AERO 4011L - POC Leadership Lab III**

**Credits: (0)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of leadership and management techniques with individuals and groups. Introduction to operations and communications security. Introduction to advanced educational opportunities available to Air Force officers.

### **AERO 4110 - POC Leadership Lab III**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Application of leadership and management techniques with individuals and groups. Introduction to operations and communications security. Introduction to advanced educational opportunities available to Air Force officers.

### **AERO 4111 - POC Leadership Lab III**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Application of leadership and management techniques with individuals and groups. Introduction to operations and communications security. Introduction to advanced educational opportunities available to Air Force officers.

### **AERO 4830 - Directed Studies**

**Credits: (1-5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Individual study with a professor from Aerospace Studies. Provides added leadership/management skill development opportunities to develop more competitive officer candidates. May be repeated 4 times with a maximum of 5 credit hours.

### **ANTH 1000 SS/DV - Introduction to Anthropology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, 2nd Blk, Full Sem Online]**

Anthropology is the study of humankind, past and present: our origins and the development of cultural behavior and biological attributes. This course examines what it means to be human, describing and explaining human differences and similarities throughout time and across the world.

### **ANTH 1020 LS/DV - Biological Anthropology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Explores human origins, evolution, and contemporary biological diversity by examining genetics, the human fossil record, primatology, and human ecology from a biocultural perspective.

### **ANTH 1040 HU/DV - Language and Culture**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Explores the nature of human language and its role in sociocultural settings. Surveys a world sample of languages from the perspective of anthropological linguistics including language structure, social functions, geographical and historical variation, and cultural values.

### **ANTH 2010 SS/DV - Peoples and Cultures of the World**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, 2nd Blk]**

A survey of cultures around the world, exploring their similarities and differences as observed by anthropologists.

### **ANTH 2030 SS - Principles of Archaeology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Archaeology attempts to reconstruct prehistoric and early historic human life ways as well as long term cultural and biological evolutionary processes through the scientific study of material remains. This course focuses upon the history of archaeology, the ways in which archaeologists recover and analyze data, and the major theoretical perspectives used to interpret the past.

### **ANTH 2810 - Experimental Courses**

**Credits: (1-6)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours.

### **ANTH 2920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-6)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated for a maximum of 6 credit hours.

### **ANTH 2950 - Elementary Anthropological Field Trip**

**Credits: (1-3)**

**Typically taught:**

**Summer [1st Blk]**

Students will visit areas and events of anthropological interest. The course will include relevant lectures, readings, and exercises designed to maximize and evaluate the learning experience. Pre- and post-trip meetings for student preparation, feedback, and course evaluation will occur. When the course number is used, it will be accompanied by a specific title and authorized credit which will appear on the student's transcript. Prerequisite: Consent of instructor. A maximum of three credit hours of Anthropology 2950 can be applied toward graduation.

### **ANTH 2990 - Special Topics in Anthropology**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A course allowing examination of selected topics and current issues in Anthropology. When the course number is used, it will be accompanied by a specific title and authorized credit which will appear on the student's transcript. Offerings of same title may not be repeated for credit toward graduation. May be repeated 6 times with a maximum of 18 credit hours.

### **ANTH 3100 - Prehistory of North America**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A general survey course concerning the archaeology of North America and an interpretation of its prehistory. The course material spans the time of initial human occupation of the continent through the early historic period, and emphasizes the three major cultural stages (Paleo Indian, Archaic, and Formative) which characterize the archaeological record of North America.

### **ANTH 3200 - Archaeology of Early Civilizations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to survey the broad range of early civilizations worldwide as they are known archaeologically, including the variety of ways and places in which they have arisen and the great diversity of peoples who created them. It examines highly complex societies in sub-Saharan and North Africa, native North and South America, East and South Asia, the Middle East, the Aegean and Celtic Europe, discussing in detail the diverse ways of life in these civilizations and how they shaped cultural forms, practices and ideas in the modern life of these regions today.

### **ANTH 3300 - Archaeological Field Techniques**

**Credits: (3-6)**

**Typically taught:**

**Summer [2nd Blk]**

Intensive field school involving archaeological excavation and/or survey, emphasizing modern field techniques, data recordation and recovery, map interpretation and production, and the proper conduct of problem-oriented archaeology. Prerequisite: ANTH 2030, one upper division archaeology course such as ANTH 3100, 3200, or 3400, and consent of instructor. May be repeated up to 12 credit hours. Archaeology Track, Archaeological Technician Associate's Degree, and Archaeological Technician Certificate students must complete 6 credit hours.

### **ANTH 3400 - Archaeological Laboratory Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Emphasizes student analysis and write-up of an artifact assemblage from an archaeological site. Weekly lectures familiarize students with analyses of prehistoric and historic archaeological materials, as well as the production of text, figures, tables, maps, and bibliographies for technical reports. Prerequisite: ANTH 2030, or consent of instructor.

### **ANTH 3500 - Advanced Cultural Anthropology**

**Credits: (3)**

The nature of culture, its structure and function in the variety of human activities. Prerequisite: ANTH 1000 or ANTH 2010, or consent of instructor.

### **ANTH 3600 - Culture Area Studies**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Surveys selected societies in ethnographically different cultural areas of the world, such as Africa, Asia, North American Indians, Latin America, the Middle East, the Pacific, or the modern United States. When the number is used, it will be accompanied by a descriptive title and the credit authorized, which will appear on the student transcript. Offerings of same title may not be repeated for credit toward graduation. Prerequisite: ANTH 1000 or ANTH 2010, or consent of instructor. May be repeated 6 times with a maximum of 18 credit hours.

### **ANTH 3700 - Sex Roles: Past, Present and Future**

**Credits: (3)**

An overview of the differences and similarities in human sex roles, cross-culturally and over time, with special emphasis on the influences of biology, socialization, and ecology in their origin, perpetuation, and change.

### **ANTH 3900 - Magic, Shamanism and Religion**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A comparative study of the origins, development, and social functions of magic, shamanism, and religion within cultural systems around the world.

### **ANTH 4100 - Archaeological Method, Theory, and Cultural Resource Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Explores means by which archaeological inferences are made to decipher the material record of past human behavior. Includes the history of recent archaeological thought from the beginnings of scientific archaeology (ca. 1960's) through the profession of cultural resource management. Prerequisite: ANTH 2030.

### **ANTH 4200 - Anthropological Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Historical and theoretical development of the major anthropological schools of thought including 19th century evolutionism, historical particularism, social anthropology, symbolic analysis, neoevolutionism, and cultural ecology. Prerequisite: ANTH 1000 or consent of instructor.

### **ANTH 4300 - Anthropological Research Methods**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students will learn and apply the scientific methods of inquiry used in anthropological research. Required for majors and recommended for minors. Prerequisite: ANTH 1000 or a 2000-level course; ANTH 4200 and SOC 3600, or consent of instructor.

### **ANTH 4810 - Experimental Courses**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated twice with a maximum of 6 credit hours.

### **ANTH 4830 - Readings and/or Projects**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individual readings and/or projects for anthropology students. (Maximum of 6 hours may be applied toward graduation.) Prerequisite: ANTH 1000, permission of instructor and approval of program coordinator.

### **ANTH 4890 - Internship in Anthropology**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Anthropology majors may apply for internship opportunities that provide the student with both practical and research experiences. A student may complete a total up to 6 hours of internships for credit, with a maximum of 3 hours to be applied towards the Anthropology major. Prerequisite: 6 hours of upper-division anthropology courses, Anthropology major status, approval of Program Coordinator.

### **ANTH 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **ANTH 4950 - Advanced Anthropological Field Trip**

**Credits: (1-3)**

**Typically taught:**

**Summer [1st Blk]**

Students will visit areas and events of anthropological interest. The course will include relevant lectures, readings, and exercises designed to maximize and evaluate the learning experience. Pre- and post-trip meetings for student preparation, feedback, and course evaluation will occur. When the course number is used, it will be accompanied by a specific title and authorized credit which will appear on the student's transcript. A maximum of three credit hours of

Anthropology 4950 can be applied toward graduation. Prerequisite: ANTH 1000 or ANTH 2030 and consent of instructor.

### **ANTH 4990 - Seminar in Anthropology**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An advanced course allowing in-depth study of selected topics and current issues in Anthropology. When the course number is used, it will be accompanied by a specific title with the credit authorized, which will appear on the student's transcript. Offerings of same title may not be repeated for credit toward graduation. Prerequisite: ANTH 1000 or consent of instructor. May be repeated 6 times with a maximum of 18 credit hours.

### **ART 1010 CA - Introduction to the Visual Arts**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk, Online]**

**Spring [Full Sem, 1st Blk, 2nd Blk, Online]**

**Summer [Online]**

Introduction to all forms of visual art covering processes (such as demonstration of the lost-wax process of metal casting), language, responses (oral and written assignments that utilize art-related terminology), issues (such as patronage, feminism or orientalism), and ways of seeing and understanding works of art. A general education course for the non-art major.

### **ART 1030 CA - Studio Art for the Non-Art Major**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

A general education course for non-art majors that primarily includes a series of hands-on art experiences (such as drawing and sculpture). Class discussion draws from the disciplines of art history, art criticism, and aesthetics as guides through visual presentations. For students desiring to broaden their academic background in the area of visual literacy and problem solving.

### **ART 1040 - Orientation to Visual Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [1st Blk]**

Orientation to the visual world including how we perceive and interpret visual messages, the impact of the visual on human relations, political exploitation of the visual and aesthetic issues in the visual arts. Topics are explored through

written and creative projects designed to establish a context for expanded study in the visual arts. Includes curriculum planning for art and design majors, introduction to programs and faculty, and professional opportunities.

### **ART 1110 - Drawing I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This is the foundation drawing class for art majors and minors (not a general education class). Perceptual and conceptual development stressed. Variety of materials and procedures investigated.

### **ART 1120 - Design Concepts**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to visual language, design principles, and compositional approaches in two and three dimensions. Basic approaches to sketching and modeling, improving compositional structures, and using form and color to communicate will be addressed.

### **ART 1130 - Approaches to Surface, Shape and Form**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

An in-depth exploration of diverse approaches to communicating through form and color in two and three dimensions. In the course of the semester, students will complete three workshop-style segments across a range of media to include 3D fabrication, analog 2D composition, and digital color & composition.

### **ART 1135 - Approaches to Materials, Space and Time**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth exploration of a range of approaches to communicating through material, spatial and time-based methods. In the course of the semester, students will complete three workshop-style segments across a range of media to include analog experimental media, art & design in space and time & interaction.

### **ART 2015 - Drawing on the Land**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Summer [Full Sem]**

Introduction to visual arts media as a productive way to investigate and interpret the natural environment. Appropriate

for the art major as well as the non-art major. Participants will build a practice of observation, inquiry, and discovery via drawing and/or other media as designated by faculty. A significant portion of each course will be conducted in the field. Media focus and field location will be announced in advance. Some travel is required. Camping may be required. This course may be repeated twice with a maximum of 9 credit hours with different titles.

### **ART 2050 - Photographing Artwork**

**Credits: (1)**

**Typically taught:**

**TBA**

Photographing artwork for portfolios: photographing of two- and three-dimensional artwork. Emphasis on reproduction of quality slides, including masking and labeling of slides for juried activities, career and graduate school application. Credit/No Credit. Prerequisite: ART 2250 or consent of instructor.

### **ART 2200 - Introduction to Printmaking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to all printmaking classes covering the processes of intaglio, screenprinting, relief, lithography, and monotype. Students are provided with the fundamentals of each process and experience with each one. This class is a prerequisite for all printmaking classes.

### **ART 2250 - Foundations of Photography: Black & White/Analog**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

A highly disciplined craft and concept course to help develop technical and aesthetic skills in black and white photography. Students learn the use of the camera, zone system of exposure, film, and print processing, and gain an aesthetic sense of the medium.

### **ART 2310 - Introduction to Ceramic Art**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The first course of a two-part introduction to ceramic art. Projects in hand-building and wheel-thrown objects are emphasized. Multiple surfacing and firing techniques will be explored.

### **ART 2350 - Small Metals/Jewelry I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to tools, materials, and basic techniques of fabrication and casting, with an emphasis on design.

### **ART 2420A - Bitmap Imaging**

**Credits: (1)**

Emphasis on the principle of bitmap imaging using industry-standard software. This course builds on studies in basic two-dimensional design and provides the conceptual and technical foundation for more advanced work in color photography, graphic design, illustration, web-based and other digital media. Primary software: Adobe Photoshop. Prerequisite: ART 1120 or consent of instructor.

### **ART 2420B - Vector Drawing**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, 2nd Blk]**

**Spring [1st Blk, 2nd Blk]**

Emphasis on vector drawing as applied to problems in art and design. This course builds on studies in basic two-dimensional design and provides the conceptual and technical foundation for more advanced work in graphic design, animation, 3D modeling, and web design. Primary software: Adobe Illustrator. Prerequisite: ART 1120 or consent of instructor.

### **ART 2420C - Digital Page Composition**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, 2nd Blk]**

**Spring [1st Blk, 2nd Blk]**

Emphasis on the principles of layout using industry-standard software tools. This course builds on studies in basic two-dimensional design and provides the conceptual and technical foundation for more advanced work in typography and graphic design. Primary software: Quark Express. Prerequisite: ART 1120 or consent of instructor.

### **ART 2420D - Design for the Internet**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, 2nd Blk]**

**Spring [1st Blk, 2nd Blk]**

Emphasis on the principles of web design using industry-standard software. This course builds in studies in basic two-dimensional design and provides the conceptual and technical foundation for more advanced work in digital media and web design. Primary software: Macromedia Dreamweaver. Prerequisite: ART 1120 or consent of instructor.

### **ART 2430 - Introduction to Graphic Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to the forms, concepts, and methods of graphic design, including the fundamentals of typography, visual metaphor, word/picture communication, visual organization, and design process. Software instruction necessary for success in the discipline is integral to studio projects. Co-Requisite: ART 1120.

### **ART 2450 - Foundations of Photography: Color/Digital**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A highly disciplined craft and concept course to help develop technical and aesthetic skills in color photography. Students will learn and explore the theory, practice, and aesthetics of shooting and printing color photographic materials. Using digital media and new technology as a means for creative expression and investigation in color photography will also be a main concern in this course.

### **ART 2600 - Painting I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to painting including the construction and design of paintings, investigations into the character and actions of various paints and techniques (traditional and contemporary) on a variety of surfaces.

### **ART 2700 - Sculpture I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to the essential methods and materials of sculpture including modeling, carving, casting, and construction with emphasis on contemporary activity in sculpture and with projects designed to practice concept development.

### **ART 2750 - Foundations of Video Art**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course will provide students with an introductory-level investigation of the skills and concepts used in experimental digital video making. Students will learn video recording and editing in an art context and to incorporate video into their own creative practice. Students will also be introduced to historical and contemporary aesthetic and conceptual issues surrounding video as a form of creative expression. Prerequisite: Either ART 2250 or ART 2450 or consent of instructor.

### **ART 2830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

Individually chosen readings on specialized topics supervised by a faculty member. Prerequisite: Consent of faculty supervisor prior to registration. May be repeated twice with a maximum of 3 credit hours.

## **ART 2850 - Furniture Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Furniture Design explores the intersection of Sculpture and Design through furniture and object making. The course addresses emerging and historic approaches to furniture including both functional and sculptural approaches by contemporary artists and designers. Students will develop intermediate to advanced skills in woodworking and metalworking while studying design and sculpture concepts and gaining a broad understanding of materials. Students will be introduced to CNC fabrication technology and CAD software for designing and creating functional furniture and furniture as sculpture.

## **ART 2890 - Cooperative Work Experience**

**Credits: (1-2, 6 maximum)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An opportunity for students to receive academic credit for faculty approved on-the-job learning experiences within certain visual arts areas of emphasis. C/NC only. Prerequisite: Instructor approval (before enrollment) and previous or concurrent enrollment in art classes as specified by each area of emphasis. May be repeated with a maximum of 6 credit hours.

## **ART 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will be determined by the department. May be repeated 5 times with a maximum of 6 credit hours with different topics.

## **ART 3085 - Critical Issues in Art**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course introduces students to the history of ideas in art from the ancient Greeks to the most contemporary currents, with a focus on Modernism and Post-Modernism up to the present. The goal of this course is the creation of a critical and theoretical foundation that will allow student to locate themselves and their work within the context of critical dialogues in the contemporary art world. Class time will involve discussions of assigned readings, with images presented to supplement and inform the ideas under consideration. Prerequisite: ART 1040 or consent of instructor.

## **ART 3120 - Figure Drawing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of the anatomical structure of the human body. The student, by means of drawing from the model, explores literal and experimental interpretation of form. Prerequisite: ART 1110 and ART 1120; or consent of instructor.

### **ART 3150 - Photography Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce students early to the type of intense investigation and experimentation necessary to define and execute a semester long project in photography. Emphasis will be on development of ideas, fine-tuning technique, and improving ability in critical evaluation and writing. Other topics covered will be an introduction to professional medium-format cameras, and portfolio preparation. Prerequisite: ART 2250 and ART 2450. May be repeated twice with a maximum of 6 credit hours.

### **ART 3200 - Intermediate Printmaking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An intermediate level class with emphasis on screenprinting, relief, and intaglio with further exploration into print processes that include photographic stencils and multicolor printing. Prerequisite: ART 1120 and ART 2200; or consent of instructor.

### **ART 3210 - Relief Printmaking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Students will learn the basic printmaking processes and traditional techniques of carving and printing both wood and linoleum relief blocks. Contemporary approaches to relief processes through digital media experimentation will be introduced. Emphasis is on development of the student's own ideas through experimentation, using traditional and non-traditional forms and processes. Safety issues will be addressed. Students will work from an introductory through an intermediate level, with a variety of progressive projects, each resulting in a small edition. The course will be administered through lecture, process demos, in class work time, and peer/individual critiques. Materials fee will cover most studio costs, excluding plates and paper. May be repeated once up to 6 credit hours.

### **ART 3215 - Etching Printmaking**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students learn basic platemaking and printing techniques used in etching while learning to incorporate their own drawing skills and points of view. Line work, aquatint, and ancillary techniques will be explored. Safety issues will be addressed. Historical and contemporary prints and printmakers are reviewed. Emphasis is on development of the student's own ideas through experimentation, using traditional and non-traditional forms and processes. The course will be administered through lecture, demos, in class work time, and formal and informal peer critiques. Materials fee to cover most supplies except for printing plates and paper. May be repeated once up to 6 credit hours.

## **ART 3310 - Ceramics II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The second class in a two-part introductory ceramics series. This course expands upon hand-building and covers wheel-thrown techniques in greater depth. Additional approaches to clay surfacing are explored. Students learn clay mixing, glaze testing and principles of kiln firing. Prerequisite: ART 2310.

## **ART 3320 - Ceramics III: Intermediate**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course addresses craftsmanship, form and content through assignments and projects. Students will conduct directed research, draft proposals, fire kilns, make clay and mix glazes. Prerequisite: ART 3310, ART 1130 or consent of instructor.

## **ART 3350 - Small Metals/Jewelry II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Development of design concepts and procedures with emphasis on basic techniques and concept development in fabrication, casting, enameling, cold connectors, surface enrichment. Prerequisite: ART 2350 or consent of instructor.

## **ART 3410 - Design Seminar for Juniors**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Orientation to professional Graphic Design practice for the Junior Graphic Design student. Includes art direction and work situations, client relations, portfolio and resume preparation, self promotion, and career advancement. Course contents will be explored through reading, writing, lecture, discussion, critique, simulation, guest presentations, studio visits, and project work tailored to individual portfolio development. Prerequisite: ART 2430, ART 3430, and ART 3455 or consent of instructor.

## **ART 3430 - Typography and Publication Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Orientation to typographic communications including methods and processes, aesthetics, readability, typographic systems, grids, layout, and digital page composition. Class meets 2 times/week for 3-hour sessions. Prerequisite: ART 2430 or consent of instructor.

### **ART 3435 - Experimental Typography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Investigation into experimental and expressive aspects of typographic communication. Emphasis is placed upon the historical development of letter design, letter and text as visual form, and typographical illustration. Prerequisite: ART 2430 or consent of instructor.

### **ART 3445 - Web Design for Visual Arts**

**Credits: (3)**

Introduction to designing for the Internet. Emphasis on the application of visual communication principles to the creation of functioning, well designed websites. Course will include basic HTML and CSS programming, methods for organizing and understanding website content, ways and processes for working with clients and/or creating content, and ways to translate design and typographic fundamentals to the landscape of the Internet. Prerequisite: ART 1140 (Color Theory), ART 2420B (Vector Drawing), and ART 2420C (Digital Page Composition), or consent of instructor.

May be repeated once for credit.

### **ART 3455 - Design Theory and Practice**

**Credits: (3)**

A thematic investigation of selected movements, theories, and figures from the history of graphic design. Topics are selected according to relevance and significance to the design profession in our current day and include the role of design research in contemporary practice. This is a studio course oriented to the interests of the visual communication program within the art major. Prerequisite: ART 2430 (and either ART 3430 or ART 3435) or consent of instructor.

### **ART 3460 - Illustration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to theory, methods, tools and materials, and the professional practice of illustration. Emphasis is placed on concept development, media exploration and technique as applied to a variety of problems in pictorial communication. Prerequisite: ART 1110 and ART 1120 or consent of instructor.

### **ART 3465 - Motion Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is an introduction to Motion Design (in relation to Graphic Design) and will cover the history and aesthetics of motion design, ways to think in time and space, techniques and methods for planning motion sequences, ways to think about and design with typography in motion, and the use of motion-specific industry-standard software and tools (Apple Motion, Adobe Flash, Adobe After Effects). This course aims to: provide historic and current perspectives regarding motion graphics and design; introduce students to categories, styles, terminology and vocabulary used in motion graphics and design; introduce students to basic techniques, methods and concepts used in motion design; work with typography and image in terms of motion; reinforce graphic design tenets and practices, and show how they extend to motion design. Prerequisite: ART 3430, ART 3435, and ART 2430 or consent of instructor.

### **ART 3500 - Advanced Time-Based Media/Video Art**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A project-oriented studio course providing a more in-depth exploration of time-based media as used by contemporary artists with an emphasis on video. We will explore installation, projection and the web as environments for video art, as well as other media which allows the employment of time as a central element. Prerequisite: ART 2750.

### **ART 3515 - Art Methods and Resources for Secondary Teachers I [Art Methods I]**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This class prepares the art education candidate for teaching in the classroom, grades 7-12 and adaptable to K- 6. Experiences will include art activities, processes, materials, tools and resources, with the development and preparation of the accompanying curricula materials, lesson plans and assessments by the candidate. Curriculum aligns with State of Utah's core curriculum and national standards in the visual arts. Content will focus on the foundations of art education programming, including the art elements and design principles. In addition, this class will examine classroom management strategies and practices for the beginning teacher in the contemporary classroom. Art Education majors should have completed 40 credit hours; minors must have completed 12 credit hours. Prerequisite: (Recommended) Professional Core Level, College of Education, or permission of instructor. This course is required for secondary certification and is designed to be taken prior to student teaching.

### **ART 3520 - Art Methods and Resources for Secondary Teachers II [Art Methods II]**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Examination of advanced approaches, methodologies, and curriculum appropriate to teaching visual arts in grades 7-12, and adaptable to K- 6. Candidate will develop and prepare materials for advanced visual arts programming. Further investigation of classroom management practices appropriate to adolescents and young adults. Collaboration, mentorship and leadership will be emphasized. Curriculum aligns with State of Utah's core curriculum and national standards in the visual arts. Art education Majors should have completed 40 credit hours; minors must have completed 12 credit hours. Prerequisite: ART 3515, or by consent of instructor. This course is required for secondary certification and is designed to be taken prior to student teaching.

### **ART 3525 - Practicum: WSU ArtsBridge Service-Learning**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This service-learning course provides the fine arts teacher candidate with academic credit for designing and teaching an integrated arts course in a grade K-12 classroom or equivalent community education program. The candidate will work closely with a University faculty mentor, host school teacher and ArtsBridge director in implementing and assessing integrated arts curricula and producing a final project by K-12 classroom students. Course components include: curricula pre-planning and implementation, in-class teaching, student assessment, candidate self-assessment and ArtsBridge seminar components. By permission only. Fine arts education content area supervisor and successful interview with faculty mentor and/or ArtsBridge director. Content methodology course(s) complete or in progress. May be repeated once with a maximum of 12 credit hours.

## **ART 3530 - Art Methods and Resources for Elementary Art Teachers K-6**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Examination of advanced approaches, methodologies, and curriculum appropriate to teaching visual arts in grades K-6. Candidate will develop and prepare materials for elementary visual arts programming, in alignment with state and national standards. Prerequisite: ART 3515.

## **ART 3550 - Photography: View Camera Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The theory, aesthetics, and techniques of photographic image making with the view camera. Students will learn the operation of large format cameras, the Zone System method of negative exposure and development and methods for fine-tuning black and white photographic printing. The history of and contemporary trends in working with large format negatives will also be explored. Prerequisite: ART 3150 or consent of instructor. May be repeated once with a maximum of 6 credit hours.

## **ART 3600 - Painting II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Consolidates and further develops material covered in Painting I. Investigations include the figure, mixed media, and abstraction. Historical precedents are discussed through slide lecture as an aid to development. Prerequisite: ART 1120 and ART 2600; or consent of instructor.

## **ART 3700 - Sculpture II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to the form language of sculpture with projects designed to develop conceptual thinking skills, to learn technical skills, and to explore new areas of interest in the three-dimensional visual arts. Prerequisite: ART 1130 and ART 2700; or consent of instructor.

## **ART 3720 - Public Art**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Public Art focuses on practices in contemporary art within the public realm and includes study of both current and historic public artworks of all mediums. Students will explore theory and practice in relation to how site impacts the context and reception of art. The course will address a broad range of approaches to working in the public realm, such as site-specificity, temporary installations, murals, environmental art, community-based projects, and interactive art. Students will learn how to develop models and proposals and gain an understanding of the steps necessary to

research, develop and implement a public art commission. A culminating semester-long project may include developing a public art project, or a public art proposal tailored for an existing public art opportunity. Students will receive a letter grade and can repeat the course for additional credit a maximum for 2 times (6 credit hours total). Prerequisite: ART 1130 (or consent of the instructor).

### **ART 3800 - Travel-Study Studio**

**Credits: (1-3)**

**Variable title course**

**Typically taught:**

**Summer [Full Sem]**

Studio projects will be based in response to the opportunities afforded by travel-study. These works may be a direct response to the country or region and its culture or they may be related to an event that takes place in that area while students are visiting. Instruction will be given in English. Prerequisite: ART 1040 or Instructor's Approval. May be repeated up to 4 times and up to 12 credit hours.

### **ART 3995 - BFA Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This is a seminar/discussion and studio course that guides BFA students in the research, development, and articulation of a thematic body of work, within the context of contemporary art. Studio projects will be directed toward bringing individual vision toward full expression. Prerequisite: BFA students who have completed second-level course in their studio area only.

### **ART 4010 - Museum Methods**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course explains and demonstrates the three main areas of emphasis within the museum studies field: collections management, curation and interpretation, and arts administration. The course meets two time a week for a three hour session. Prerequisite: Consent of instructor.

### **ART 4110 - Advanced Drawing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continued drawing exploration in various media with emphasis on focused personal direction, independent serial work, presentation of assigned research into related contemporary work, active participation in the critique process. Prerequisite: ART 3120 or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4120 - Advanced Figure Drawing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Advanced study of the structure of the human body with a greater stress on draftsmanship, historical uses of the figure in art, and individual explorations. Prerequisite: ART 3120 or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4150 - Photography: Alternative Processes**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Studio assignments are based on photographic alternatives to the silverprint. Historical references and perspectives provide the context for supervised studio/computer/assignments. Prerequisite: ART 3150 and ART 1140 or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4200 - Advanced Printmaking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An advanced level class in printmaking with emphasis on screenprinting, relief, intaglio, and/or lithography. Emphasis on individual portfolio production. Prerequisite: ART 3200 or consent of instructor. May be repeated twice with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4310 - Ceramics IV: Advanced**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Advanced Issues in craftsmanship and concepts are addressed through lecture and proposal based projects. Research assignments that explore ceramic processes and current trends in ceramic art are emphasized. Prerequisite: ART 3320, ART 1130, ART 1040 or consent of instructor. May be repeated 2 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4320 - Ceramics V: The Artist's Identity**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Intensive research on ceramic processes and concepts as it relates to creating a unique identity as a ceramic artist is emphasized. Proposal based initiatives are coupled with critical thinking, writing and research assignments. This is a suggested preparatory course for the BFA capstone classes. Prerequisite: ART 4310, ART 1130, ART 1040 or consent of instructor. May be repeated 2 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4350 - Small Metals/Jewelry III**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Development of advanced design concepts and procedures with emphasis on basic techniques and concept development in fabrication, casting, enameling, cold connectors, and surface enrichment. Prerequisite: ART 3350 or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4400 - Advanced Graphic Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Application of design theory and process to complex problems in visual communication. Emphasis is placed on research, analysis, problem definition, and the development of individual design solutions. Studio projects vary each term and will generally involve visual identity, information design, environmental graphics, publication design, and design for interactive media. Prerequisite: ART 2430, ART 3430, ART 3435, ARTH 3451 and BFA program admission or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4410 - Design Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Orientation to professional practice in visual communication including art direction and work situations, client relations, portfolio and resume preparation, self promotion, and career advancement. Course contents will be explored through reading, writing, lecture, discussion, critique, simulation, guest presentations, studio visits, and project work tailored to individual portfolio development. Prerequisite: ART 3410, ART 3445, ART 4400, and BFA program admission or consent of instructor. May be repeated twice with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4415 - Design Production**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Technical processes and procedures for Art Major, Visual Communication emphasis. Emphasis is placed on file preparation and technical procedures for electronic media and for offset printing including proofing methods, paper, binding and other finishing processes. Prerequisite: ART 3430 and ART 3435 or consent of instructor.

### **ART 4420 - Advanced Digital Media**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students will further develop personal expression in the visual arts using computer media through aesthetic problem solving and further development of digital media skills. There will be an emphasis on strengthening the students' ability to work independently while supplying the necessary feedback from the interaction of a class. Prerequisite: ART 2420A,

ART 2420B, ART 2420C, ART 2420D, or consent of instructor. May be repeated twice with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4440 - Interaction Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is an introduction to the principles of interaction design as it relates to physical and digital space, with a focus on designing user-centered artifacts like interactive publications and apps for hand-held devices. Theoretical concepts like ethnography, user-testing, and the use of mapping in design will be explored. We will also explore the landscape of technology as it relates to interaction, and the use of appropriate tools and software to create prototypes and functioning digital designs. Prerequisite: ART 1120 (2-D Design) or consent of instructor. May be repeated once for credit.

### **ART 4460 - Advanced Illustration**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Development of individual approaches to advanced problems in illustration. Emphasis is placed on the formulation of visual metaphor, articulation of form, and on professional practices. Studio projects vary each term and will generally involve editorial, reportorial, scientific, advertising, and instructional problems in pictorial communication. Prerequisite: ART 3460 or consent of instructor. May be repeated twice with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4550 - Photography: Studio Lighting**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This is a practical course that enables students to better control and use light and lighting in their work. Students will be introduced to a range of artificial light sources and lighting techniques to be used as a means of creative control. Work will center in the studio where controlled conditions and a directorial approach can yield the artist's intent. Prerequisite: ART 3150 or consent of instructor. May be repeated once with a maximum of 6 credit hours.

### **ART 4600 - Painting III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Emphasis on developing independence in the painting student and to provide an opportunity for them to pursue their own area of interest in painting while providing the necessary feedback from the interaction of a class. Prerequisite: ART 3600 or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4660 - Special Topics in Photography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of specific topics in photography, the subject and faculty change each time this course is offered. Example topics include "Documentary Photography," "Visual Books," "Video Art," and "Directed Visions." Prerequisite: ART 3150 or consent of instructor. May be repeated 2 times for credit – consult with faculty advisor.

### **ART 4700 - Sculpture III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Advanced individual problems in selected areas of concentration; research and development of conceptual, technical, and methodological concerns. Prerequisite: ART 3700 or consent of instructor. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4750 - Experimental Photography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Experimental photographic alternatives to the traditional methods of photographic image making. Emphasis will be placed on using the camera, darkroom techniques and digital and emerging technology in ways that will give the students the mind-set and ability to push the limits of the medium. Prerequisite: ART 3150. May be repeated 3 times with a maximum of 9 credit hours-please consult a faculty advisor.

### **ART 4801 - College of Arts & Humanities Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **ART 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Individually chosen readings on specialized topic supervised by a faculty member. Prerequisite: Consent of faculty supervisor prior to registration. May be repeated twice with a maximum of 3 credit hours-please consult a faculty advisor.

### **ART 4890 - Cooperative Work Experience**

**Credits: (1-2, 6 maximum)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An opportunity for students to receive academic credit for faculty approved on-the-job learning experiences within certain visual arts areas of emphasis. C/NC only. Prerequisite: By instructor approval only and previous or concurrent enrollment in art classes as specified by each area of emphasis. May be repeated for a maximum of 6 credit hours-please consult a faculty advisor.

### **ART 4900 - Individual Studies**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Individual studies in selected areas of emphasis. Open to juniors and seniors by instructor approval only. May be repeated for a maximum of 6 credit hours-please consult a faculty advisor.

### **ART 4910 - Photography: Internship**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

Students have the opportunity to engage in a close learning relationship with professional photographers. These opportunities include workshops, seminars, professional assistantships, and residencies. Students will be responsible for researching and proposing mentorships. Area faculty will approve proposals, help place students with mentors and review the progress of mentorships. Prerequisite: ART 3150 or consent of instructor. May be repeated for credit – consult with faculty advisor.

### **ART 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

In order to provide flexibility and to meet many different needs, a number of specific offerings are possible using this catalog number. When the number is used it will be accompanied by a brief and specific descriptive title. The specific title with the credit authorized for the particular offering will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours with different topics.

### **ART 4930 - Teaching Assistantship Experience**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Designed for students who wish to gain teaching experience for graduate school. By observation and participation with the instructor, students will learn how a basic art course is designed and taught. Prerequisite: Student must be in the BFA program and have instructor consent.

## **ART 4990 - BFA Thesis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Emphasis on portfolio preparation and professional writing skills pertinent to the completion of the BFA Thesis Exhibit and future career applications. Students work on the development and synthesis of ideas, and fine-tune relevant artistic and critical evaluation skills. During this course students will be required to produce new work for the BFA Thesis Exhibit. Prerequisite: Senior level BFA student. Completion of ART 3995 BFA Seminar. Registration by departmental approval only. Course cannot be taken during the semester immediately following BFA Seminar. May be repeated for credit - consult with faculty advisor.

## **ARTH 1090 CA - Art and Architecture of the World: Paleolithic-AD 1000**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [1st Blk]**

A global survey of the history of art and architecture from BC 15,000 to AD 1000. Visual art from the first artistic expressions on rocks to the art of emerging civilizations (such as Mesopotamia, Egypt, China, India, and Africa), and the monuments and small-scale artifacts of the Medieval Ages will be analyzed in its historical, social, political, and broader cultural contexts.

## **ARTH 1100 CA - Art and Architecture of the World: AD 1000-Present**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A global survey of the history of art and architecture from AD 1000 to the present. Visual art from Gothic cathedrals and Islamic book art to Renaissance Europe and the Chinese Empire, from the Age of Enlightenment to contemporary art will be analyzed in its historical, social, political, and broader cultural contexts.

## **ARTH 2040 - Art and Architecture of Asia**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A historical account of the architecture, sculpture, and painting of Asia (India, Nepal, Tibet, Myanmar, Sri Lanka, Thailand, Cambodia, Indonesia, China, Korea, and Japan), including the political, religious, and intellectual history informing the arts of each country.

### **ARTH 3030 - Native American Art of the Southwest: From the Anasazi to the Present**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] odd years**

Focuses on the arts of the Native Americans in the Southwest from their archaeological past to the present with occasional relevant explorations of Native American art in general. Study of traditional and contemporary modes of artistic expressions.

### **ARTH 3040 - Modern Art**

**Credits: (4)**

**Typically taught:**

**Check with Department**

The history of the visual arts (including painting, sculpture, architecture and photography) from 1850 to the 1950s. Study of issues in European and American Modernism; multicultural perspectives; the political, social, and intellectual history informing the arts of that period. Prerequisite: ARTH 1100 or consent of instructor.

### **ARTH 3050 - Contemporary Art**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Critical analysis of developments in the arts (including multimedia art, photography, performance art, installations, and feminist art) from 1960s to the present. Emphasis on post modern currents and issues and their study in the context of broader cultural contexts. Prerequisite: ARTH 1100 or consent of instructor.

### **ARTH 3055 - Special Topics in Art History**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] odd years**

This course will explore different topics and content related to art history and the contemporary practice of art; the content of the course will change as the main topic changes. Students will gain the benefit of a deep dive into a specific time period, discourse, or exploration of media.

### **ARTH 3060 - The Art and Architecture of India**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An historical account of the architecture, sculpture, and painting of India, including the political, religious, and intellectual history informing the arts of various regions.

### **ARTH 3070 - The Art and Architecture of China**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

An historical account of the architecture, sculpture and painting of China including the political, religious, and

intellectual history informing the arts of different regions. May be repeated for a maximum of 4 credit hours-please consult a faculty advisor.

### **ARTH 3080 - The Art and Architecture of Japan**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An historical account of the architecture, sculpture and painting of Japan, including the political, religious, and intellectual history informing the arts of different regions. May be repeated for a maximum of 4 credit hours-please consult a faculty advisor.

### **ARTH 3100 - The Art and Architecture of the Islamic World**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

An historical survey of the architecture, sculpture, and painting of the Islamic world, including the political, religious, and intellectual history informing the arts of different countries: Iran, Iraq, Egypt, Turkey, North Africa, India, Spain, and Indonesia.

### **ARTH 3451 - History of Design**

**Credits: (4)**

Significant figures and movements in the history of graphic design from the development of written languages to the present. Contents include intersections with art movements and related disciplines such as architectural, products, and interactive design along with the social, political, and technical forces that have influenced these disciplines over time. Prerequisite: ARTH 1100 or consent of instructor.

### **ARTH 3850 - Travel-Study Art History**

**Credits: (1-4)**

**Variable title course**

**Typically taught:**

**Summer [Full Sem]**

The study of the history of art and architecture will be in direct response to a country or region and its culture or it may be related to an event that takes place in that area while students are there. Instruction will be given in English.

Prerequisite: ARTH 1090 or ARTH 1100 or ARTH 2040.

### **ARTH 3950 - Photography: History, Theory and Criticism**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This is a reading, writing and discussion course, which addresses historical and contemporary issues of photographic art practices. Written projects and class discussions will focus on developing a critical understanding of the readings as they relate to the historical development and contemporary practice of photography as a fine art, to the influence photography has had on the history of art and to the broader cultural impact of photography and digital media. Prerequisite: ARTH 1100 or consent of instructor.

### **ASTR 1040 PS - Elementary Astronomy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

A brief survey of the physical universe using the fundamental laws of physics. Topics include the history of astronomy, the solar system, the sun, the evolution of stars, pulsars, black holes, the Milky Way galaxy, galaxies, quasars, and the Big Bang. Three hours of lecture per week. Cross-listed with PHYS 1040.

### **ASTR 2040 PS - Principles of Observational Astronomy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introductory course in observational astronomy. Topics will include planetary, stellar, and galactic astronomy, with a focus on modern observational techniques, including digital imagery, spectroscopy, and observing with science-grade astronomical instrumentation. *Cross-listed with PHYS 2040*. Prerequisite: MATH 1060 (minimum grade of C).

### **ASTR 2800 - Introductory Individual Research Problems**

**Credits: (1-3)**

Time and credit to be arranged. Intended for students working on a directed research project which includes physics/astronomy at the lower division level for one or more semesters. Prerequisite: Consent of instructor. Cross-listed with PHYS 2800. May be repeated up to 10 times.

### **ASTR 2830 - Introductory Readings in Physics/Astronomy**

**Credits: (1-3)**

Time and credit to be arranged. Intended for students working on a directed reading project which includes physics/astronomy at the lower division level for one or more semesters. Prerequisite: Consent of instructor. Cross-listed with PHYS 2830. May be repeated up to 10 times.

### **ASTR 3040 - Principles of Observational Astronomy, Advanced**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An advanced course in observational astronomy. Topics will include planetary, stellar, and galactic astronomy, with a focus on modern observational techniques, including digital imagery, spectroscopy, and observing with science-grade astronomical instrumentation. *Cross-listed with PHYS 2040*. Prerequisite: PHYS 2710 and PHYS 3180.

### **ASTR 3160 - Stellar and Planetary Astrophysics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Selected topics in astrophysics with a focus on stellar and planetary systems. Topics may include celestial mechanics, interaction of light and matter, stellar and planetary spectroscopy, stellar atmospheres and interiors, binary star systems, planets and planet formation, and extrasolar planets. Prerequisite: PHYS 2220. Cross-listed with PHYS 3160.

### **ASTR 3170 - Galaxies and Cosmology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Selected topics in astrophysics, with a focus on galactic astronomy and cosmology. Topics may include gravitational dynamics, interaction of light and matter, galaxy classification, galaxy formation and evolution, the structure of the universe, cosmology, and the origin and fate of the universe. Prerequisite: PHYS 2220. *Cross-listed with PHYS 3170.*

### **ASTR 4800 - Individual Research Problems**

**Credits: (1-3)**

Time and credit to be arranged. Open to qualified students for one or more semesters. Prerequisite: Consent of instructor. Cross-listed with PHYS 4800. May be repeated up to 10 times.

### **ASTR 4830 - Readings in Physics/Astronomy**

**Credits: (1-3)**

Topics which can be studied include (but are not limited to): mechanics, thermodynamics, kinetic theory, statistical mechanics, electronics, electromagnetism, optics, solid-state physics, modern physics, nuclear physics, relativity, cosmology, and astrophysics. These courses may be taken at any time on a personalized basis. Time and credit to be arranged. Prerequisite: Consent of instructor. Cross-listed with PHYS 4830. May be repeated up to 10 times.

### **AT 1300 - First Aid: Responding to Emergencies**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Training the lay person to respond correctly in emergencies and act as the first link in the emergency medical service system. Course leads to American Red Cross certification in Adult, Infant and Child CPR and First Aid: Responding to Emergencies. Cross-listed with HLTH 1300.

### **AT 1500 - Introduction to Athletic Training (First Semester)**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for students to observe the function of an athletic training facility and become aware of the various duties performed by a Certified Athletic Trainer. Students who wish to apply for admission to the Athletic Training major must take this course. Five (5) clinical hours outside of class at an on-campus athletic training setting are required as assigned.

### **AT 1501 - Clinical Application of Athletic Training I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in the areas of acute care of injury and illnesses. Two lab hours per week. Prerequisite: AT 1500, AT 2300, and formal admission to the AT education program.

### **AT 1550 - Introduction to Athletic Therapy**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce students to health care professions that the majority of athletic therapy majors pursue. These health care professions include: athletic training (AT), physical therapy (PT), occupational therapy (OT), physician assistant (PA), and medicine (MD or DO). Through lecture and assignments, students will learn the process to apply for the graduate school of their choice and learn skills and perform activities to get them ready for graduate school.

### **AT 2175 - Introduction to Sports Medicine**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Presents the duties, functions, and collaboration of sports medicine professionals in the care and supervision of athletes. The course will focus on the prevention, diagnosis, and treatment of common musculoskeletal injuries/illnesses, strength and conditioning of athletes, environmental factors and guidelines, and management and administration of the sports medicine team.

### **AT 2300 - Emergency Response**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Meets the needs of the non-health care professional who has a duty to respond in an emergency. Provides more skills and in-depth training than the First Aid: Responding to Emergencies course. Course leads to American Red Cross certification in Emergency Response and CPR for the Professional Rescuer. Cross-listed with HLTH 2300.

### **AT 2430 - Prevention and Care of Musculoskeletal Injuries**

**Credits: (3)**

This course is designed to give a basic understanding of athletic training principles. Recognition, cause, prevention, and treatment of musculoskeletal injuries.

## **AT 2431 - Taping, Wrapping, Bracing, Padding, and Splinting**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to give a basic understanding of athletic training taping, wrapping, bracing, padding, and splinting techniques. Students will apply a variety of techniques to support all areas of the body. Prerequisite: AT 1500, formal admission to the AT education program.

## **AT 2500 - Clinical Application of Athletic Training II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in the areas of risk management and injury prevention, taping, wrapping, bracing and padding, and musculoskeletal injury assessment (lower extremity). Prerequisite: AT 1501, AT 2431 and AT 3300.

## **AT 2501 - Clinical Application of Athletic Training III**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in the areas of musculoskeletal injury assessment (upper extremity). Prerequisite: AT 2500 and AT 3301.

## **AT 3080 - Statistics and Evidence-Based Practice**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course explores the concepts necessary to ensure future allied-health professionals are well prepared to utilize an evidence-based practice approach to treatment. Students will gain familiarity with the major elements of evidenced based practice, such as developing a clinically-relevant research question, completing a literature review, as well as becoming familiar with research methodology such as research design, evaluation, statistical analysis, presentation of data, and ethical considerations. This course provides an overview of descriptive and inferential statistics. Students should have a basic understanding of conducting library and Internet information searches prior to taking this course. Prerequisite: MATH 1010 or higher; or Math ACT score of 23 or higher.

## **AT 3200 - Psychology of Sport, Injury & Rehabilitation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to provide a basic understanding of the psychology of sport, injury, and rehabilitation. Topics covered include: emotion, motivation, mental skills training and use, psychological antecedents of injury, psychology of injury and rehabilitation, career transition and termination, disabilities, rehabilitation/exercise adherence, eating disorders, alcohol and drug/substance abuse, gender and cultural diversity, and research methods related to psychology of sport, injury and rehabilitation. Prerequisite: PSY 1010 and AT 3500 (BSAT majors only), and Admission to the BSAT or Athletic Therapy programs.

### **AT 3300 - Evaluation and Care of Musculoskeletal Injuries: Lower Extremities**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [1st Blk]**

Content of this course addresses evaluation techniques and care for musculoskeletal injuries to the trunk and lower extremities. The student must integrate knowledge of anatomical structures, physiology principles and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: ZOOL 2100 or HTHS 1110.

### **AT 3301 - Evaluation and Care of Musculoskeletal Injuries: Upper Extremities**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Content of this course addresses evaluation techniques and care for musculoskeletal injuries to the head, face and upper extremities. The student must integrate knowledge of anatomical structures, physiology principles and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: ZOOL 2100 or HTHS 1110; AND AT 3300.

### **AT 3500 - Clinical Application of Athletic Training 1**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in the areas of acute care of injury and illness, risk management, and upper/lower extremity injury evaluation. Prerequisite: AT 1500 and AT 2300 and AT 3300 and AT 3301.

### **AT 3501 - Clinical Application of Athletic Training 2**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in the areas of taping/wrapping/bracing/padding, neuromuscular conditioning, and upper/lower extremity injury evaluation. Prerequisite: AT 2431 and AT 3300 and AT 3301 and PEP 3280.

### **AT 3550 - Clinical Application of Athletic Training-Supplement**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Provides an opportunity for students to gain clinical experience with varied patient populations in the areas of assessment, evaluation, modalities and rehabilitation. Prerequisite: AT 3500.

## **AT 3600 - Ergonomics for Health and Safety**

### **Credits: (2)**

Examines and analyzes the effects of the workplace on employees and adaptations of the work environment to suit the individual. The focus is on the interaction of work and people, i.e., physiological and environmental stresses with the primary intent to establish ways to reduce injuries, accidents, and fatigue and to improve human performance at work. Prerequisite: ESS 3500 or consent of instructor.

## **AT 4100 - Basic Therapeutic Modalities for Musculoskeletal Injuries**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Summer [1st Blk]**

Through lecture, discussion, and laboratory experience, the scientific basis of musculoskeletal rehabilitation involving therapeutic modalities will be examined. This course is designed to introduce students to the contemporary usage and basic foundation of therapeutic modalities, transmission of energy, infrared, and mechanical therapy. Prerequisite: AT 3300 and AT 3301; and PHYS 1010; AND (HTHS 1110 OR ZOOL 2100) and Formal Admission into the Athletic Training Program.

## **AT 4101 - Advanced Therapeutic Modalities for Musculoskeletal Injuries**

### **Credits: (3)**

#### **Typically taught:**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Through lecture, discussion, and laboratory experience, the scientific basis of musculoskeletal rehabilitation involving therapeutic modalities will be examined. This course is designed to build upon the basic foundations of therapeutic modalities established in AT 4100. Topics for discussion include the application of electrotherapy devices, ultrasound, light therapy, and short-wave diathermy. Prerequisite: AT 4100.

## **AT 4150 - Therapeutic Modalities for Athletic Therapy majors**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Specifically designed for the pre-professional student, the course will introduce the student to contemporary usage and basic foundation of therapeutic modalities. Through lecture, discussion, and laboratory experience, the scientific basis of musculoskeletal rehabilitation involving therapeutic modalities will be examined. Emphasis will be placed on fundamental concepts of tissue healing and pain control techniques, as well as an introduction to cryo/thermotherapy, massage, traction, ultrasound and electrical stimulation. Prerequisite: AT 3300, AT 3301, Admission to the Athletic Therapy major.

## **AT 4200 - Basic Rehabilitation of Musculoskeletal Injuries**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Content of this course provides basic understanding of therapeutic exercise as it relates to the rehabilitation process of

musculoskeletal injuries. Course provides basic concepts and hands on techniques used in the rehabilitation of the athlete/patient from an injury state to a highly competitive state. Prerequisite: AT 3300, AT 3301, and ESS 3450 and Formal Admission into the Athletic Training Program.

#### **AT 4201 - Advanced Rehabilitation of Musculoskeletal Injuries**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Content of this course provides advanced understanding of therapeutic exercise as it relates to the rehabilitation process of musculoskeletal injuries. This course provides advanced instruction and hands on techniques in the rehabilitation of an athlete/patient from an injury state to a highly competitive state. Prerequisite: AT 4200 and ESS 3500 and PHYS 1010.

#### **AT 4250 - Rehabilitation for Athletic Therapy majors**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an overview of therapeutic exercise as it relates to the rehabilitation process of musculoskeletal injuries for Athletic Therapy majors. This course provides instruction and hands-on techniques in basic therapeutic rehabilitation techniques. Prerequisite: AT 3300, AT 3301, ESS 3450, Admission to Athletic Therapy major.

#### **AT 4500 - Clinical Application of Athletic Training 3**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in areas of basic therapeutic exercise, basic therapeutic modalities, general medical conditions, and pharmacology. Prerequisite: AT 3501 and AT 4100 and AT 4200 and AT 4550.

#### **AT 4501 - Clinical Application of Athletic Training 4**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Provides an opportunity for students to receive skill proficiency testing in areas of advanced therapeutic exercise, advanced therapeutic modalities, and musculoskeletal injury assessment (upper and lower extremity). Prerequisite: AT 3200 and AT 4101 and AT 4201 and AT 4500.

#### **AT 4550 - General Medical Conditions and Advances in Athletic Training**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Discuss general medical disorders and conditions pertaining to sports medicine and inquire into newest research of related issues. Prerequisite: AT 3300 and AT 3301 and Formal Admission into the Athletic Training Program.

## **AT 4600 - Administration & Management in Athletic Training**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides an overview of the necessary policies, procedures, maintenance, and daily operation of athletic training facilities. Applies principles of facility design and planning, information management, legal and ethical considerations in health care, and professional development as it relates to athletic training. Prerequisite/Co-requisite: Student must have completed or be concurrently registered for AT 3500 OR ESS 4890.

## **AT 4650 - Management for Athletic Therapy majors**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides an overview of the necessary policies, procedures, maintenance, and daily operation of healthcare facilities. Applies principles of facility design and planning, information management, legal and ethical considerations in healthcare, and professional development as it relates to future healthcare professionals. Prerequisite: AT 3300, AT 3301, AT 4890 (may be taken concurrently), and Admission to the Athletic Therapy program.

## **AT 4700 - Introduction to Radiology for the Athletic Training Profession**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This course provides an opportunity for students to gain exposure to the diagnostic imaging techniques commonly used by the medical community in diagnosis of injury in the athlete. Upon completion of the course, students will be able to identify anatomy and understand terminology used by health professionals when discussing diagnostic images. Prerequisite: AT 4200 and Formal Admission into the Athletic Training Program.

## **AT 4750 - Evidence-Based Evaluation & Treatment of the Sacroiliac Joint and Spine**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course will focus on evidence-based evaluation and management of the spine and pelvis, including the cervical spine, thoracic spine, lumbar spine and the sacroiliac joints. The students must integrate anatomical structures, physiology principles, and evaluative techniques to provide a basis for critical decision-making and management for these pathologies. Prerequisite: AT 3300 and AT 3301 and AT 3501.

## **AT 4800 - Individual Projects**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A comprehensive study or project in the field of Athletic Training. Hours to be arranged for seniors only. May be repeated 3 times up to 16 credit hours.

### **AT 4890 - Cooperative Work Experience**

**Credits: (1-6)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Provides academic credit for on-the-job experience. May be repeated 5 times and up to 6 credit hours.

### **AT 4998 - Preparation for the Board of Certification (BOC) Exam**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

This is an optional course for Athletic Training Majors in the Clinical Track who are preparing for the Board of Certification (BOC) Exam. Prerequisite/Co-requisite: AT 3501. May be repeated once up to 2 credit hours.

### **AT 4999 - Critical Thinking for Musculoskeletal Injury Management**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

Content of this course addresses evaluation techniques, rehabilitation processes and return to play guidelines for specific injuries to the upper and lower extremities. The student must integrate anatomical structures, physiology principles, rehabilitation principles, and evaluative techniques to provide a basis for critical decision-making and care in an athletic injury management environment. Prerequisite: AT 4101 and AT 4201. May be repeated 3 times up to 4 credit hours.

### **ATHL 1080 - Strength Training Level I**

**Credits: (1)**  
-For Club Hockey Players Only

### **ATHL 1081 - Strength Training Level II**

**Credits: (1)**  
-For Club Hockey Players Only

### **ATHL 1180 - Varsity Softball**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of softball at the collegiate level. Students will

learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1510 - Varsity Volleyball**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of volleyball at the collegiate level. Students will learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1520 - Varsity Soccer**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of soccer at the collegiate level. Students will learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1570 - Varsity Basketball**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of basketball at the collegiate level. Students will learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1580 - Varsity Cross Country**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This athletic activity course is intended to engage students in the sport of cross country at the collegiate level. Students will learn techniques and participate in drills to assist with the development of competitive skills and prepare for varsity cross country meets. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1590 - Varsity Football**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of football at the collegiate level. Students will learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1600 - Varsity Golf**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of golf at the collegiate level. Students will learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1630 - Varsity Tennis**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of tennis at the collegiate level. Students will learn techniques, drills, and games to assist with the development of skills and competitive game play. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1640 - Varsity Track and Field**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This athletic activity course is intended to engage students in the sport of track and field at the collegiate level. Students will learn techniques and drills to assist with the development of skills for competition. May be repeated 7 times with up to 8 credit hours.

### **ATHL 1680 - Varsity Indoor Track**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

May be repeated 3 times for 4 credit hours.

### **ATHL 1760 - Spirit Squad**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Fall [Full Sem]**

This athletic activity course is intended to engage students in dance/cheer for the spirit squad at the collegiate level. Students will learn techniques to assist with the development of skills and performance. May be repeated 7 times with up to 8 credit hours.

### **ATTC 3000 - Introduction to Automotive Technology**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

An introduction to the Automotive Technology program. Degree requirements and options, internship preparation, employment opportunities, required professional publications, communication, and other topics. (This course is a prerequisite for most automotive technology courses.) Prerequisite: Proof of completion of an Associate of Applied Science AAS or Associate of Science AS degree in automotive service technology or a related degree.

### **ATTC 3020 - Introduction to Safety Management and Hazardous Materials**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

An overview of the environmental issues related to the use and service of vehicles, with emphasis on air quality topics. Environmental regulations, safe practices, disposal of hazardous substances, such as paints and solvents. Prerequisite: ATTC 3000.

### **ATTC 3260 - Advanced Electrical Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of the advanced electrical systems in today's vehicles. Vehicle communication networks, body control systems, chassis control systems, powertrain control, hybrid control, and battery control systems. Prerequisite/Co-requisite: ATTC 3000 and previous automotive electrical training.

### **ATTC 3280 - Advanced Painting and Refinishing**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Preparation for insurance industry employment. Includes advanced topics in surface preparation and application of contemporary and specialty paints. Matching, blending and complete vehicle refinishing. Inter-Industry Conference on Auto Collision Repair (I-CAR) training modules are included. Lab included. Prerequisite/Co-requisite: ATTC 3000.

### **ATTC 3480 - Advanced Structural Analysis and Damage Repair**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Preparation for insurance industry employment. Includes advanced topics in frame and unibody repair. Replacement of major panels, measuring and corrective pulling, and occupant safety systems. Inter-Industry Conference on Auto Collision Repair (I-CAR) training modules are included. Lab included. Prerequisite: ATTC 3280.

### **ATTC 3520 - Fleet Management**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem Online]**

Study of fleet standards, fixed operations, inventory and personnel management, financial policies and procedures. Includes financial statement analysis. Prerequisite/Co-requisite: ATTC 3000 and PS 3203.

### **ATTC 3620 - Automotive Business Practices**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem Online]**

Study of independent shop and corporate dealership standards, fixed operations, inventory and personnel management, and industry report systems, financial policies and procedures. Includes financial statement analysis. Prerequisite: ATTC 3000.

### **ATTC 3680 - Automotive Damage Analysis and Estimating**

**Credits: (3)**  
**Typically taught:**  
**Not currently being offered**

Preparation for insurance industry employment. Includes an overview of vehicle damage analysis, restraint systems, mechanical and electrical systems. Topics also include industry standard terminology, procedures, and estimation software usage. Lab included. Prerequisite: ATTC 3480.

### **ATTC 3760 - Advanced Automotive Technologies**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem, Full Sem Online]**

A study of current events/trends in the automotive industry, industry standard professional publications, and the latest technologies used by the automotive industry to meet current emissions, fuel economy, and safety regulations. Prerequisite/Co-requisite: ATTC 3000.

### **ATTC 3880 - Cooperative Practicum**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem Online]**

Supervised work experience with a sponsoring employer, designed to synthesize theory and practice. Full-time, upper division related employment and approval of faculty supervisor required. Prerequisite: ATTC 3000.

### **ATTC 4380 - Advanced Non-Structural Analysis and Damage Repair**

**Credits: (3)**  
**Typically taught:**  
**Not currently being offered**

Preparation for insurance industry employment. Includes advanced topics in safety, welding processes, panel repair and

replacement, trim application, water and wind leakage. Inter-Industry Conference on Auto Collision Repair (I-CAR) training modules are included. Lab included. Prerequisite: ATTC 3480.

### **ATTC 4530 - Hybrid and Electric Vehicle Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online]**

An in-depth look at the operation, diagnosis, and service of hybrid (HEV), plug-in hybrid (PHEV), and electric vehicles (EV). Topics include: Safety and personal protective equipment (PPE), low voltage systems, high voltage systems, high voltage batteries, inverter/converters, transaxles, electric motors, Atkinson Cycle internal combustion engines (ICE), heating, ventilation, and air-conditioning (HVAC) systems, braking/regenerative braking, and steering systems. Preparation for the ASE L3 Light duty hybrid/electric vehicles exam is included.

### **ATTC 4540 - Automated Safety and Convenience Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

An in-depth look at the operation, diagnosis and service of the automated safety and convenience systems found on modern vehicles. Topics will include: AUTOMATED: vehicle system classifications (driver assisted, partial automated, conditional automated, high automated, and fully automated). SAFETY: advanced cruise systems, advanced steering systems, advanced suspension systems, advances parking systems. CONVENIENCE: In car WiFi, vehicle to vehicle communication, biometrics, active health monitoring, comprehensive vehicle tracking, advanced heads up displays.

### **ATTC 4550 - Advanced Automotive Emissions**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

The study and evaluation of vehicle and fuel technologies to meet current and future emissions standards. We will explore what automotive emissions are currently regulated, purpose and procedures associated with emissions testing, current and future emissions reduction technologies, and how sustainable manufacturing is being implemented in industry. The topics in this class will help you to prepare for the L1 Advanced Engine Performance test.

### **ATTC 4560 - Advanced Propulsion Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of advanced propulsion systems including those used on hybrid-electric vehicles, plug-in hybrids, electric vehicles, and other propulsion technologies. Advanced transmissions/transaxles, wheel motors, drive motors, etc. are included. Prerequisite: ATTC 3760.

### **ATTC 4710 - Capstone Research Methods**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

This is the first course in the Capstone Project for seniors. This course will prepare students to complete the capstone

project. Students will create the initial proposal and receive approval for the project. Students will start the research for the project using the standards established by the Society of Automotive Engineers (SAE).

### **ATTC 4720 - Capstone Research and Development**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

The use of sophisticated diagnostic tools and equipment. Emphasis is on diagnosis and the development of analytical thinking as it applies to technical problems. Includes lab. Prerequisite: ATTC 4710.

### **ATTC 4760 - Alternate Fuel Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of alternate fuel systems including bio fuels (ethanol and bio-diesel systems), advanced diesel systems, hybrid-electric vehicles, Compressed Natural Gas (CNG) systems, hydrogen fuel cell, and other existing or emerging technologies. Prerequisite: ATTC 3760.

### **ATTC 4780 - Insurance Industry Business Practices**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

An overview of the business practices used by the automotive insurance industry. Included is the use of industry standard software to determine insurance policy coverage, vehicle reparability (current value verses repair costs) and parts availability. Prerequisite/Co-requisite: ATTC 3680 and PS 3203.

### **ATTC 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

Individual readings supervised by a faculty member. Prerequisite: Approval of instructor. May be repeated twice up to 3 credit hours.

### **ATTC 4860 - Automotive Standards, Laws, and Regulations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of automotive industry related Society of Automotive Engineers (SAE) standards, State Regulations, U.S. Environmental Protection Agency (EPA) emissions regulations, National Highway Traffic Safety Administration (NHTSA), Federal Motor Vehicle Safety Standards (FMVSS), Corporate Average Fuel Economy (CAFE) regulations, and others. Prerequisite: ATTC 3000.

## **ATTC 5920 - Short Courses and Workshops**

### **Credits: (1-4)**

Consult the semester class schedule for the current offerings under this number.

## **AUSV 1000 - Introduction to Automotive Service**

### **Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to automotive shop safety, pollution prevention, hazardous waste handling, Internet-based electronic service information, diagnostic scan tools, ASE certifications, safety inspection certifications, emissions inspection certifications, developing job interview skills, and resume writing. (This course is a prerequisite for all automotive service courses.)

## **AUSV 1001 - Collision Repair Fundamentals and Estimating**

### **Credits: (2)**

**Typically taught:**

**not currently being offered**

This course is an introduction to the collision repair industry and the construction of the modern automobile as it applies to the collision repair industry. Emphasis will be placed on locating vehicle information, basic construction of vehicles, environmental concerns and issues, and writing collision repair estimates on damaged vehicles.

## **AUSV 1010 - Automotive Technology Orientation**

### **Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

An introduction to maintenance and light repair tasks including: lube oil and filter change, basic under vehicle inspection and maintenance, basic under hood inspection and maintenance, wheel and tire service, Internet-based electronic service information, and diagnostic scan tools, (This course is a prerequisite for all automotive service courses.)

## **AUSV 1020 - Braking, Steering, Suspension, and Climate Control Systems**

### **Credits: (8)**

Theory, operation, diagnosis and repair of braking, steering, and suspension systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. Prerequisite: AUSV 1000, AUSV 1325. (AUSV 1020 is equivalent to AUSV 1021, AUSV 1022, and AUSV 2320.)

## **AUSV 1021 - Automotive Braking Systems 1**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of braking systems. This is the first part of a two-part class. (AUSV 1021, AUSV 1022, and AUSV 2320 are equivalent to AUSV 1000, AUSV 1020.)

## **AUSV 1022 - Steering and Suspension Systems 1**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of steering and suspension systems. This is the first part of a two-part class. (AUSV 1021, AUSV 1022, and AUSV 2320 are equivalent to AUSV 1000, AUSV 1020.)

## **AUSV 1023 - Automotive Braking Systems 2**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of automotive braking systems. This is the second part of a two-part class. Prerequisite: AUSV 1021.

## **AUSV 1025 - Steering and Suspension Systems 2**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of steering and suspension systems. This is the first part of a two-part class. Prerequisite: AUSV 1022.

## **AUSV 1030 - Honda Braking, Steering, Suspension, and Climate Control Systems**

**Credits: (8)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Honda braking, steering, suspension, and climate control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. Prerequisite: AUSV 1000, AUSV 1335. (AUSV 1030 is comprised of AUSV 1031, AUSV 1032 and AUSV 2330.)

### **AUSV 1031 - Honda Braking Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Honda braking systems. Prerequisite: AUSV 1000. (AUSV 1030 is equivalent to AUSV 1031, AUSV 1032, and AUSV 2330).

### **AUSV 1032 - Honda Steering and Suspension Systems**

**Credits: (2)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Honda steering and suspension systems. (AUSV 1031, AUSV 1032, and AUSV 2330 are equivalent to AUSV 1000, AUSV 1030.)

### **AUSV 1040 - General Motors Braking, Steering, Suspension and Climate Control Systems**

**Credits: (8)**

Theory, operation, diagnosis, and repair of General Motors braking, steering, suspension, and climate control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. Prerequisite: AUSV 1000, AUSV 1345. (AUSV 1040 is comprised of AUSV 1041, AUSV 1042 and AUSV 2340.)

### **AUSV 1041 - General Motors Braking Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of General Motors braking systems. (AUSV 1040 is equivalent to AUSV 1041, AUSV 1042, and AUSV 2340). Prerequisite: AUSV 1000, AUSV 1345.

### **AUSV 1042 - General Motors Steering and Suspension Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of General Motors steering and suspension systems. Prerequisite: AUSV 1000. (AUSV 1041, AUSV 1042, and AUSV 2340 are equivalent to AUSV 1000, AUSV 1040.)

### **AUSV 1050 - Chrysler Braking, Steering, Suspension and Climate Control Systems**

**Credits: (8)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Chrysler braking, steering, suspension, and climate control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. Prerequisite: AUSV 1000, AUSV 1355. (AUSV 1050 is comprised of AUSV 1051, AUSV 1052 and AUSV 2350.)

### **AUSV 1051 - Chrysler Braking Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Chrysler braking systems. Prerequisite: AUSV 1000, AUSV 1355. (AUSV 1050 is equivalent to AUSV 1051, AUSV 1052, and AUSV 2350).

### **AUSV 1052 - Chrysler Steering and Suspension Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Chrysler steering and suspension systems. Prerequisite: AUSV 1000. (AUSV 1051, AUSV 1052, and AUSV 2350 are equivalent to AUSV 1000, AUSV 1050.)

### **AUSV 1060 - Toyota Braking, Steering, Suspension, and Climate Control Systems**

**Credits: (8)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Toyota braking, steering, suspension, and climate control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. Prerequisite: AUSV 1000, AUSV 1365. (AUSV 1060 is comprised of AUSV 1061, AUSV 1062 and AUSV 2360.)

### **AUSV 1061 - Toyota Braking Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Toyota braking systems. Prerequisite: AUSV 1000, AUSV 1365. (AUSV 1060 is equivalent to 1061, AUSV 1062 and AUSV 2360.)

### **AUSV 1062 - Toyota Steering and Suspension Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Toyota steering and suspension systems. Prerequisite/Co-requisite: AUSV 1000. (AUSV 1061, AUSV 1062, and AUSV 2360 are equivalent to AUSV 1000, AUSV 1060.)

### **AUSV 1071 - H D Truck Brakes**

**Credits: (2)**

Operation, diagnosis, inspection, and repair of air brake systems. Equivalent to DATC proficiency #48530, 48601.

## **AUSV 1072 - H D Truck Steering & Suspension**

### **Credits: (3)**

Operation, diagnosis, and repair of heavy duty steering and suspension systems. Equivalent to DATC proficiency #48540, 48550.

## **AUSV 1080 - Non-Structural Analysis and Damage Repair 1**

### **Credits: (4)**

#### **Typically taught:**

**not currently being offered**

Safety, welding processes, panel repair and replacement, trim application, water leak and wind noise issues . Proper use of modern body fillers and repair techniques. I-CAR training modules are included. Prerequisite: AUSV 1001 or instructor approval.

## **AUSV 1085 - Painting and Refinishing 1**

### **Credits: (4)**

#### **Typically taught:**

**not currently being offered**

Introductory course on modern automotive paint application processes. Emphasis will be placed on Panel and part preparation as well as spray and application techniques. Prerequisite: AUSV 1001 or instructor approval.

## **AUSV 1100 - Principles of Technology I**

### **Credits: (2)**

#### **Typically taught:**

**not currently being offered**

Scientific concepts of force, work, rate, resistance and energy are applied to mechanical and fluid systems found in modern industry. Laboratory activities featuring measurement and instrumentation are emphasized.

## **AUSV 1120 - Automotive Engines 1**

### **Credits: (2)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, repair, and overhaul of automotive engines.

## **AUSV 1124 - Automotive Engines 2**

### **Credits: (2)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, repair, and overhaul of automotive engines. This is the second part of a two-part class. Prerequisite: AUSV 1120.

### **AUSV 1130 - Honda Engines**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, repair, and overhaul of Honda engines. Prerequisite: AUSV 1000.

### **AUSV 1140 - General Motors Engines**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theory, operation, diagnosis, repair, and overhaul of General Motors engines. Prerequisite: AUSV 1000.

### **AUSV 1150 - Chrysler Engines**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, repair, and overhaul of Chrysler engines. Prerequisite: AUSV 1000.

### **AUSV 1160 - Toyota Engines**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, repair, and overhaul of Toyota engines. Prerequisite: AUSV 1000.

### **AUSV 1170 - H D Truck Engines**

**Credits: (5)**

Operational principles, diagnosis and complete overhaul of diesel engines. Equivalent to DATC proficiency #48140, 48141, 48142, 48143, 48160, 48162, 48163.

### **AUSV 1180 - Structural Analysis and Damage Repair 1**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Frame and unibody repair will be explored. Replacement of major structural panels and introduction to measuring and corrective pulling will be covered. Occupant safety and restraint systems will be examined. I-Car training modules are included. Prerequisite: AUSV 1001 or instructor approval.

## **AUSV 1200 - Principles of Technology II**

**Credits: (2)**

**Typically taught:**

**not currently being offered**

Scientific concepts pertaining to electricity, heat, sound and light are applied to systems found in modern industry. Laboratory activities featuring measurement and instrumentation are emphasized. Prerequisite: AUSV 1000.

## **AUSV 1220 - Automotive Manual Drivetrain Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, maintenance, and overhaul of manual transmissions and transaxles, front and rear drive axles and differentials, drivelines, and transfer cases. Prerequisite: AUSV 1000.

## **AUSV 1230 - Honda Manual Drivetrain Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, maintenance, and overhaul of Honda manual transmissions and transaxles, drive axles and differentials, drivelines, and transfer units. Prerequisite: AUSV 1000.

## **AUSV 1240 - General Motors Manual Drivetrain Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Theory, operation, diagnosis, maintenance, and overhaul of General Motors manual transmissions and transaxles, front and rear drive axles and differentials, drivelines, and transfer cases. Prerequisite: AUSV 1000.

## **AUSV 1250 - Chrysler Manual Drivetrain Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, maintenance, and overhaul of Chrysler manual transmissions and transaxles, front and rear drive axles and differentials, drivelines, and transfer cases. Prerequisite: AUSV 1000.

## **AUSV 1260 - Toyota Manual Drivetrain Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, maintenance, and overhaul of Toyota manual transmissions and transaxles, front and rear drive axles and differentials, drivelines, and transfer cases. Prerequisite: AUSV 1000.

## **AUSV 1270 - H D Truck Drive Mechanisms**

**Credits: (8)**

Theory, operation, diagnosis, and overhaul of the clutch, transmission, drive lines, differentials, and wheel bearings. Equivalent to DATC proficiency #48401, 48403, 48603.

## **AUSV 1300 - Technical Mathematics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Measurements, common and decimal fractions, square roots, surfaces, columns, capacities. Principles of algebra and geometry.

## **AUSV 1320 - Automotive Electronics 1**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Electrical fundamentals, use of meters and wiring diagrams, wiring repair. Theory, diagnosis, and repair of computer inputs, outputs, and communication systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. This is a three-part class.

## **AUSV 1323 - Automotive Electronics 2**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Electrical fundamentals, use of meters and wiring diagrams, wiring repair. Theory, diagnosis, and repair of computer inputs, outputs, and communication systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. This is a three-part class.

## **AUSV 1325 - Electrical Fundamentals 3**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Electrical fundamentals, use of meters and wiring diagrams, wiring repair. Theory, diagnosis, and repair of lighting, infotainment, electronic control modules. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. This is the third part of a three-part class.

## **AUSV 1330 - Honda Automotive Electronics**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Electrical fundamentals, use of meters and Honda wiring diagrams, wiring repair. Theory, diagnosis, and repair of Honda

computer inputs, outputs, and communication systems. The use of Honda electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. Prerequisite: (Recommended) AUSV 1000.

### **AUSV 1335 - Honda Electronics, Electrical and Body Control Systems**

**Credits: (7)**

**Typically taught:**

**not currently being offered**

Electrical fundamentals, use of meters and Honda wiring diagrams, wiring repair. Theory, diagnosis, and repair of Honda computer inputs, outputs, and communication systems, starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of Honda electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1330, AUSV 2130 are equivalent to AUSV 1335.)

### **AUSV 1340 - General Motors Automotive Electronics**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Electrical fundamentals, use of meters and General Motors wiring diagrams, wiring repair. Theory, diagnosis, and repair of General Motors computer inputs, outputs, and communication systems. The use of General Motors electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. Prerequisite: (Recommended) AUSV 1000.

### **AUSV 1345 - General Motors Electronics, Electrical and Body Control Systems**

**Credits: (7)**

Electrical fundamentals, use of meters and General Motors wiring diagrams, wiring repair. Theory, diagnosis, and repair of General Motors computer inputs, outputs, and communication systems, starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of General Motors electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1340, AUSV 2140 are equivalent to AUSV 1345.)

### **AUSV 1350 - Chrysler Automotive Electronics**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Electrical fundamentals, use of meters and Chrysler wiring diagrams, wiring repair. Theory, diagnosis, and repair of Chrysler computer inputs, outputs, and communication systems. The use of Chrysler electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. Prerequisite: (Recommended) AUSV 1000.

### **AUSV 1355 - Chrysler Electronics, Electrical and Body Control Systems**

**Credits: (7)**

**Typically taught:**

**not currently being offered**

Electrical fundamentals, use of meters and Chrysler wiring diagrams, wiring repair. Theory, diagnosis, and repair of Chrysler computer inputs, outputs, and communication systems, starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of Chrysler electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1350, AUSV 2150 are equivalent to AUSV 1355.)

### **AUSV 1360 - Toyota Automotive Electronics**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Electrical fundamentals, use of meters and Toyota wiring diagrams, wiring repair. Theory, diagnosis, and repair of Toyota computer inputs, outputs, and communication systems. The use of Toyota electronic service information, the proper diagnostic process, and proper diagnostic service tools are emphasized. Prerequisite: (Recommended) AUSV 1000.

### **AUSV 1365 - Toyota Electronics, Electrical and Body Control Systems**

**Credits: (7)**

**Typically taught:**

**not currently being offered**

Electrical fundamentals, use of meters and Toyota wiring diagrams, wiring repair. Theory, diagnosis, and repair of Toyota computer inputs, outputs, and communication systems, starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of Toyota electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1360, AUSV 2160 are equivalent to AUSV 1365.)

### **AUSV 1400 - Automotive Fundamentals**

**Credits: (2)**

Operation, diagnosis and repair of selected automotive systems, as well as general auto shop orientation for beginners and non-automotive majors.

### **AUSV 1890 - Cooperative Work Experience**

**Credits: (1-6)**

Open to all first year students in Automotive Service. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department.

### **AUSV 2020 - Engine Control Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of automotive fuel systems, OBD-II and Tier-2 emission control systems, and ignition systems. (AUSV 1120, AUSV 2020 are equivalent to AUSV 2625.) Prerequisite: AUSV 1000, AUSV 1325.

### **AUSV 2030 - Honda Engine Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Honda automotive fuel systems, OBD-II and Tier-2 emission control systems, and ignition systems. (AUSV 1130, AUSV 2030 are equivalent to AUSV 2635.) Prerequisite: AUSV 1000, AUSV 1335.

## **AUSV 2040 - General Motors Engine Control Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theory, operation, diagnosis, and repair of General Motors automotive fuel systems, OBD-II and Tier-2 emission control systems, and ignition systems. (AUSV 1140, AUSV 2040 are equivalent to AUSV 2645.) Prerequisite: AUSV 1000, AUSV 1345.

## **AUSV 2050 - Chrysler Engine Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Chrysler automotive fuel systems, OBD-II and Tier-2 emission control systems, and ignition systems. (AUSV 1150, AUSV 2050 are equivalent to AUSV 2655.) Prerequisite: AUSV 1000, AUSV 1355.

## **AUSV 2060 - Toyota Engine Control Systems**

**Credits: (6)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Toyota automotive fuel systems, OBD-II and Tier-2 emission control systems, and ignition systems. (AUSV 1160, AUSV 2060 are equivalent to AUSV 2665.) Prerequisite: AUSV 1000, AUSV 1365.

## **AUSV 2080 - Painting and Refinishing 2**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Advanced surface preparation and application of modern paint system. Color matching, blending and complete vehicle refinishing. I-CAR training modules are included. Prerequisite: AUSV 1085 or instructor approval.

## **AUSV 2085 - Non-Structural Analysis and Damage Repair 2**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

This is an advanced non-structural and welding course that expands on what has previously been learned. A great deal of time will be spent working on advanced non-structural techniques and processes. Full frame, unibody, space frames and other modern frame designs will be examined along with proper repair and replacement techniques. Prerequisite: AUSV 1080 or instructor approval.

## **AUSV 2120 - Automotive Electrical and Body Control Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, diagnosis, and repair of starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic services tools are emphasized. (AUSV 1320, AUSV 2120 are equivalent to AUSV 1325.) Prerequisite: (Recommended) AUSV 1000. Prerequisite: AUSV 1320.

## **AUSV 2130 - Honda Electrical and Body Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, diagnosis, and repair of Honda starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic services tools are emphasized. (AUSV 1330, AUSV 2130 are equivalent to AUSV 1335.) Prerequisite: (Recommended) AUSV 1000. Prerequisite: AUSV 1330.

## **AUSV 2140 - General Motors Electrical and Body Control Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Theory, diagnosis, and repair of General Motors starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic services tools are emphasized. (AUSV 1340, AUSV 2140 are equivalent to AUSV 1345.) Prerequisite: (Recommended) AUSV 1000. Prerequisite: AUSV 1340.

## **AUSV 2150 - Chrysler Electrical and Body Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, diagnosis, and repair of Chrysler starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic services tools are emphasized. (AUSV 1350, AUSV 2150 are equivalent to AUSV 1355.) Prerequisite: (Recommended) AUSV 1000. Prerequisite: AUSV 1350.

## **AUSV 2160 - Toyota Electrical and Body Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, diagnosis, and repair of Toyota starting, charging, lighting, air-bags, power accessories, and various body computer control systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic services tools are emphasized. (AUSV 1360, AUSV 2160 are equivalent to AUSV 1365.) Prerequisite: (Recommended) AUSV 1000. Prerequisite: AUSV 1360.

### **AUSV 2170 - H D Truck Electrical Systems**

**Credits: (3)**

Theory, operation, diagnosis and repair of batteries, starting, charging and electrical accessories. Equivalent to DATC proficiency #48304, 48305.

### **AUSV 2180 - Structural Analysis and Damage Repair 2**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Expands on techniques and skills learned in AUSV 1180. Emphasis will be placed on advanced frame and unibody repair techniques and methods. Prerequisite: AUSV 1180 or instructor approval.

### **AUSV 2270 - H D Truck Engine Diagnosis**

**Credits: (3)**

Engine starting, diagnosis, fuel pump timing, compression and cylinder leakage testing, and tune-up. Equivalent to DATC proficiency #48144, 48164, 48302.

### **AUSV 2320 - Automotive Climate Control Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis and repair of climate control systems. (AUSV 1020 is equivalent to AUSV 1021, AUSV 1022, and AUSV 2320). Prerequisite: AUSV 1000, AUSV 1320.

### **AUSV 2330 - Honda Climate Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis and repair of Honda climate control systems. (AUSV 1030 is equivalent to AUSV 1031, AUSV 1032 and AUSV 2330.) Prerequisite: AUSV 1000, AUSV 1330.

### **AUSV 2340 - General Motors Climate Control Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theory, operation, diagnosis and repair of General Motors climate control systems. (AUSV 1040 is equivalent to AUSV 1041, AUSV 1042 and AUSV 2340.) Prerequisite: AUSV 1000, AUSV 1340.

### **AUSV 2350 - Chrysler Climate Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis and repair of Chrysler climate control systems. (AUSV 1050 is equivalent to AUSV 1051, AUSV 1052 and AUSV 2350.) Prerequisite: AUSV 1000, AUSV 1350.

### **AUSV 2360 - Toyota Climate Control Systems**

**Credits: (3)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis and repair of Toyota climate control systems. (AUSV 1060 is equivalent to AUSV 1061, AUSV 1062 and AUSV 2360.) Prerequisite: AUSV 1000, AUSV 1360.

### **AUSV 2370 - H D Truck Air Conditioning**

**Credits: (2)**

Operation, environmental concerns, diagnosis and repair of air conditioning and heating systems and components. Equivalent to DATC proficiency #48800, 48801.

### **AUSV 2480 - Auto Body Business Practices**

**Credits: (2)**

**Typically taught:**

**not currently being offered**

Estimating, scheduling work, purchasing, inventory, insurance practices and applied customer relations.

### **AUSV 2520 - Automatic Transmissions**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, operation, diagnosis and overhaul procedures of automatic transmissions. Prerequisite: AUSV 1000, AUSV 1325.

### **AUSV 2530 - Honda Automatic Transmissions**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis and overhaul procedures of Honda automatic transmissions. Prerequisite: AUSV 1000, AUSV 1335.

### **AUSV 2540 - General Motors Automatic Transmissions**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Theory, operation, diagnosis and overhaul procedures of General Motors automatic transmissions. Prerequisite: AUSV 1000, AUSV 1345.

### **AUSV 2550 - Chrysler Automatic Transmissions**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis and overhaul procedures of Chrysler automatic transmissions. Prerequisite: AUSV 1000, AUSV 1355.

### **AUSV 2560 - Toyota Automatic Transmissions**

**Credits: (4)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis and overhaul procedures of Toyota automatic transmissions. Prerequisite: AUSV 1000, AUSV 1365.

### **AUSV 2625 - Engine Mechanical and Engine Control Systems**

**Credits: (6)**

Theory, operation, diagnosis, and repair of automotive engines, fuel systems, OBD-II and Tier-2 emission control systems, ignition systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1120, AUSV 2020 are equivalent to AUSV 2625.) Prerequisite: AUSV 1000, AUSV 1325.

### **AUSV 2635 - Honda Engine Mechanical and Engine Control Systems**

**Credits: (6)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Honda automotive engines, fuel systems, OBD-II and Tier-2 emission control systems, ignition systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1130, AUSV 2030 are equivalent to AUSV 2635.) Prerequisite: AUSV 1000, AUSV 1335.

### **AUSV 2645 - General Motors Engine Mechanical and Engine Control Systems**

**Credits: (6)**

Theory, operation, diagnosis, and repair of General Motors automotive engines, fuel systems, OBD-II and Tier-2 emission control systems, ignition systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1140, AUSV 2040 are equivalent to AUSV 2645.) Prerequisite: AUSV 1000, AUSV 1345.

## **AUSV 2655 - Chrysler Engine Mechanical and Engine Control Systems**

**Credits: (6)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Chrysler automotive engines, fuel systems, OBD-II and Tier-2 emission control systems, ignition systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1150, AUSV 2050 are equivalent to AUSV 2655.) Prerequisite: AUSV 1000, AUSV 1355.

## **AUSV 2665 - Toyota Engine Mechanical and Engine Control Systems**

**Credits: (6)**

**Typically taught:**

**not currently being offered**

Theory, operation, diagnosis, and repair of Toyota automotive engines, fuel systems, OBD-II and Tier-2 emission control systems, ignition systems. The use of electronic service information, the proper diagnostic process, and proper diagnostic service tools is emphasized. (AUSV 1160, AUSV 2060 are equivalent to AUSV 2665.) Prerequisite: AUSV 1000, AUSV 1365.

## **AUSV 2860 - Automotive Shop Practice**

**Credits: (3-8)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Provides an opportunity to practice skills needed by Automotive Service technicians derived from classroom and shop experience. Simulates line mechanic work. Prerequisite: Instructor approval required. May be taken 10 times up to 30 credit hours.

## **AUSV 2880 - Cooperative Practicum**

**Credits: (3-8)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised work experience, at the sponsoring dealership, which applies directly to previous academic courses. Full-time employment and approval of faculty supervisor required. May be taken 10 times up to 30 credit hours.

## **AUSV 2890 - Cooperative Work Experience**

**Credits: (1-6)**

Open to second year Automotive Service students. A continuation of AUSV 1890. NOTE: AUSV 2890 may be taken in lieu of AUSV 2860, when appropriate work experience is available and the student obtains departmental approval.

## **AUSV 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

## **BDC 1040 - Introduction to Building Design & Construction**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem; Full Sem Online]**

**Spring [Full Sem; Full Sem Online]**

An introductory course in Building Design & Construction to explore emerging CAD/BIM graphical communication technology to interpret and prepare plans for the Architecture, Engineering, and Construction industry. Course content includes print reading and interpretation of residential and commercial construction documents.

## **BDC 1350 - Residential Design & Codes**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

An introductory course in Building Design & Construction to explore emerging CAD/BIM tools to design code compliant homes. Course content includes instruction in 2D and 3D Computer Design (CAD) software to design and model a small residential home with an emphasis on residential methods and materials of construction, codes, and Building Information Modeling (BIM). As a Community Engaged Learning Class, students will reflect on their experience interacting with HFH representatives throughout the semester to design their next home build. These reflections will equate to 10% of the final grade and will be submitted periodically throughout the semester. A minimum of 4 reflections will be required to assess their Civic Knowledge and Skills to solve the design problem presented by HFH. It is estimated that each student will submit 40+ hours of service with HFH, a minimum of 8 must be through "A brush with Kindness", Home Builds, or Restore hours. The remaining hours will be completed through the amount of time spent designing the semester long project for consideration of being the plan selected to be built.

## **BDC 2000 - Commercial Design & Codes**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

An introductory course in Building Design & Construction to explore emerging CAD/BIM tools to design code compliant commercial buildings. Course content includes instruction in CAD/BIM software to model a small commercial building with an emphasis of commercial methods and materials of construction, codes, and Building Information Modeling (BIM). This course will prepare students for the Certified Autodesk Revit User exam.

## **BDC 2830 - Directed Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Directed readings in Building Design, & Construction. Must have department approval. Can be taken for 3 credit hours three times for a maximum of 9 credits.

## **BDC 3000 - Sustainable Building Design & Codes**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

An analysis of sustainability in the green built environment including certifications such as LEED, Energy Star, RESNET, and the National Green Building Standard. Course discussions will include: What is Green Building and why does it make sense, Building Science fundamentals, planning for Green from the start, Green Building Economics, and Building performance analysis.

## **BDC 3660 - Structural Design & Detailing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

Structural design & detailing for Building Designers and Construction Professionals using emerging software to visualize and analyze the structural behavior of buildings and structures. A study of common construction material properties and their connections under varying load conditions including: wood, steel, and concrete. Both 2D and 3D CAD are used to create residential and commercial engineered construction documents. Prerequisite: PHYS 2010.

## **BDC 4350 - BIM Management & Coordination**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

An advanced BIM course dealing with BIM project management, MEP modeling, clash detection, 4D scheduling, as well as emerging technology in the Building Design & Construction industry. Prerequisite: BDC 2000 or CMT 2360.

## **BDC 4600 - Senior Project**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

This course is a culminating experience for students from the program. Requires integration of concepts from a variety of coursework to prepare and present a solution to a building design & construction problem. Emphasis placed on integrated project management including preparation of drawings, creation of presentations, project organization, control, and documentation.

## **BIS 2800 - Foundations of Integrated Studies**

**Credits: (3)**

**Typically taught:**

**[Not taught at this time]**

Foundations of Interdisciplinary Studies provide students with theories and methods used in cross-disciplinary inquiry. Course components include: connections between academic studies and student interests, methods associated with integrated studies, and planning future employment and life-long learning goals.

## **BIS 3800 - BIS Capstone and Graduation Preparation**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

This course provides BIS students with a foundation for the capstone project, as well as helping them to professionalize themselves in preparation for life after graduation. Prerequisite: BIS 2800.

## **BIS 3850 - BIS Internship**

**Credits: (1-3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

The Bachelor of Integrated Studies Program (BIS) offers BIS students the opportunity to earn 1 to 3 elective credits for a work internship. Prerequisite: For requirements and guidelines, contact the BIS office.

## **BIS 4800 - Bachelor of Integrated Studies Senior Capstone**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

The Senior Capstone serves as the culmination of the Bachelor of Integrated Studies (BIS) interdisciplinary degree. After completing course work in three different areas of emphasis, BIS student synthesize their three disciplines in this capstone project. Prerequisite: BIS 3800.

## **BSAD 1010 - Introduction to Business**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Relation of business managers and firms to contemporary society and the global economy. Topics include human values and ethics in the workplace, multiculturalism, social responsibilities of business, business functions, and general principles of effective business operation.

## **BSAD 2704 - Information Resources in the Business Disciplines**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, Full Sem Online]**

**Spring [1st Blk, Full Sem Online]**

Information Resources in the Business Disciplines is a one credit hour course that will assist students in developing information literacy and basic research skills to support life-long learning. Students will develop skills in identifying, locating, retrieving, documenting, and critically evaluating both electronic and print resources that are appropriate for undergraduate research, with emphasis in the business disciplines. Cross listed with LIBS 2704.

## **BSAD 2899 - Business Foundations and Admission Assessment**

**Credits: (0)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

Completion of BSAD 2899 is required of all students pursuing any major, minor, emphasis or certificate awarded by the John B. Goddard School of Business & Economics. The course objectives are: 1) assessment of Business Foundation knowledge, and 2) admittance to the Goddard School. Students must have an overall GPA of 2.5 or higher and a Business Foundation GPA of 2.5 or higher and a minimum grade of "C-" in each of the six Business Foundation courses. *Credit/No credit*. Prerequisite/Co-requisite: ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010, QUAN 2600. Department registration approval is required. Students should register for this course concurrent with (same semester as) their last Business Foundation course (ACTG 2010, ACTG 2020, ECON 2010, ECON 2020, MIS 2010 and QUAN 2600) or after the required Business Foundation courses have been completed.

## **BSAD 2920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-6)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours with different topics.

## **BSAD 3000 - Small Business Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

This course is designed for students majoring outside the John B. Goddard School of Business & Economics. It will not be counted for credit toward graduation for students majoring in the John B. Goddard School of Business & Economics. It covers the business management concepts involved in starting and/or managing a small business.

### **BSAD 3200 - Legal Environment of Business**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Introduction to the legal and judicial system, emphasizing the application of regulatory law (e.g., antitrust, employment discrimination, etc.) and selected common law topics (e.g., contracts, agency, etc.).

### **BSAD 3330 - Business Ethics & Environmental Responsibility**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 2nd Blk]**

**Summer [1st Blk]**

An introduction to the rudiments of moral reasoning, concepts and principles, and their application to common ethical issues faced in business. Special attention will be given to moral issues associated with the use of the natural environment by businesses. Prerequisite: BSAD 2899.

### **BSAD 3500 - Introduction to Business Research**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduces students to gathering and analyzing primary and secondary data for a wide range of business applications, such as assessing customer or employee satisfaction. Students are introduced to CD ROM databases, other library resources, questionnaire development and administration, basic data analysis, and research report writing. Prerequisite: BSAD 2899, QUAN 3610.

### **BSAD 3600 - [World Region] Business and Society**

**Credits: (3)**

The world region or country covered in this course varies and will be indicated in the specific course title and on the student's transcript (e.g., European Business and Society, Japanese Business and Society, etc.). For a specified world region or country, this course considers its historical and cultural roots, together with modern societal issues, as they relate to business; the role of business in society; economic development, industrial policy, and trade relations; and management and business practices, including sociocultural considerations, in the specified world region or country. Prerequisite: (Recommended) Prior course work in business or economics or the appropriate foreign language(s) or culture, or in-country experience. BSAD 2899.

### **BSAD 4210 - Survey of Business Law**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

An overview of sales, negotiable instruments, property, and debtor/ creditor relations and other selected legal topics. Prerequisite: BSAD 2899, BSAD 3200.

### **BSAD 4401 - E-Commerce**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Technologies, strategies, and methods for an electronic approach to financial, purchasing, marketing, and order fulfillment processes. Emphasis is on creating successful business strategies to exploit Internet and Electronic Data Interchange (EDI) capabilities. Prerequisite: MKTG 3010 or concurrent enrollment in MKTG 3010.

### **BSAD 4500 - Entrepreneurship**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Integration of various functional areas of business as they relate to evaluating, creating, planning, and managing new business ventures. Prerequisite: Business Foundations; BSAD 2899; MKTG 3010; MGMT 3010, MGMT 3200.

### **BSAD 4620 - Executive Lectures**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

This course is designed to acquaint the students with successful executives, their personal styles and philosophies as leaders, and the keys to their effectiveness. The course may be repeated for credit to a maximum of two credit hours. *Credit/No credit*. The format is a series of weekly one-hour lectures delivered by guest executives.

### **BSAD 4680 - Small Business Diagnostics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Diagnostic analysis of small business issues through the use of case studies and consultation opportunities with small businesses in the community. Students will work both individually and in teams to analyze the health of sample small businesses, identify issues and develop recommendations for remediation. Case issues will cover a broad spectrum of typical small business issues and require the student to evaluate based on all areas of business operations. Research, written reports and presentations are required. Cross-listed with ENTR 4680. Prerequisite: ENTR 2001 OR BSAD 2899 and Instructor approval.

### **BSAD 4780 - Strategic Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A capstone course for seniors designed to facilitate integration of the knowledge gained in earlier courses. Focus of the course is on the total enterprise. Emphasis is on crafting well-conceived strategies and on successful strategy implementation. Prerequisite: BSAD 2899, BSAD 3200, SCM 3050, FIN 3200, MGMT 3010, MGMT 3200 or PS 3250, MKTG 3010, Senior standing.

### **BSAD 4800 - Independent Research**

**Credits: (1-3)**

Directed research and study on an individual basis. May be repeated until a total of 4 hours credit is accumulated. Prerequisite: BSAD 2899; Senior Standing; Written Instructor Approval.

### **BSAD 4850 - Business Administration Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore business administration theory and practice in countries other than the U.S. Students will study international business as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. May be repeated once up to 6 credits.

### **BSAD 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours with different topics.

### **BTNY 1203 LS - Plant Biology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk Online]**

An introductory course for non-majors that emphasizes unique features of plant biology. Included are discussions on: the origins of life; important plants of the world and their habitats; plant diversity, structure, function, and reproduction; plants and environmental science; plants that changed history; practical botany; and botany as a science. Three lecture/demonstration hours per week.

### **BTNY 1303 LS - Plants in Human Affairs**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk Online]**

This class provides a general introduction to the importance and function of plants in human affairs. It includes an overview of science as a way of knowing, plant forms and functions, plant reproduction, and use of economically and sociologically important plants. Flowering and non-flowering plants and products such as fruits, forages, grains, medicines, herbs and spices, textile fibers, lumber, algae, and foliage plants are studied. Ecological concepts as they relate to the growth and production of world food crops will also be included. The course has a strong emphasis on the historical development of exploitation of certain plants and the role plants played in exploration and international development. This class cannot be used to fulfill requirements for a Botany major or minor. Three hours of lecture per week.

### **BTNY 1370 LS - Principles of Life Science**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A survey course for elementary education majors. Course content includes cells, cell chemistry, genetics, plant and animal anatomy, plant and animal classification, physiology, immune systems, evolution, and ecology. Unifying concepts of all living things will be emphasized. Recommended for students intending to major in elementary education. This class cannot be used to fulfill requirements for a Botany major or minor. Two hours of lecture and one 3-hour laboratory per week.

### **BTNY 1403 LS - Environment Appreciation**

**Credits: (3-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Development of awareness of the consequences of the impact of modern science through technology upon our environments and how we respond to issues related to threats to our biological life-support system. A definition of a quality environment is developed, with student input, and an analysis of the existing quality of our environment is made in light of this definition which challenges our collective wisdom to identify those things which we do well and to prescribe remedies for shortcomings. This course can be taken for 3 or 4 credits with the fourth credit based on a major research paper or project on an environmental issue. This class cannot be repeated for upper division credit (BTNY 3403). Three hours of lecture per week.

### **BTNY 2104 - Plant Form and Function**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the structure, function, and reproduction of seed plants. The role of plants in making life on earth possible is an important theme. This course is designed for science majors and is a prerequisite for selected upper division Botany courses. Two hours of lecture and two 2-hour labs per week. Botany majors are advised to take BTNY 2121 prior to or concurrently with this course.

### **BTNY 2114 - Evolutionary Survey of Plants**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the diversity, ecology, and reproduction of plants in the context of the evolution of life on earth. The role of plants in making life on earth possible is an important theme. This course is designed for science majors and is a prerequisite for selected upper division Botany courses. Two hours of lecture and two 2-hour labs per week. Botany majors are advised to take BTNY 2121 prior to or concurrently with this course.

### **BTNY 2121 - Career Planning for Botanists**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A course designed for majors to introduce them to expected student learning outcomes, assessment of these expected outcomes, advisement and/or mentoring, keys to success in getting a job or into graduate school, career resources available, and how to start and develop the Botany Student Portfolio. One lecture per week. Botany majors are advised to take this course concurrently with BTNY 2104 or BTNY 2114.

### **BTNY 2203 - Home and Garden Plants**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Basic principles of plant science with special reference to care of home and garden plants. Includes a general study of lighting, watering, soils, fertilizer, pruning and shaping, propagation, controlling pests, and planting designs. Two hours of lecture and one 3-hour laboratory per week.

### **BTNY 2303 - Ethnobotany**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A global study of how plants are used by indigenous peoples for food, fiber, fabric, shelter, medicine, weapons, and tools. Plants that are well known to science as well as those with purported uses by villagers, shamans, curanderos and medicine men/women will be studied. Students will learn fundamental botanical principles, how to conduct field work and how to collect plants and prepare them for use. Ethical questions concerning conservation, biodiversity and the continued loss of indigenous plants and cultures will also be discussed. Three lecture/demonstrations per week.

### **BTNY 2413 - Introduction to Natural Resource Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Introduces students, especially those interested in forestry and range management, to concepts and ideologies in the utilization and preservation of forests, range, soils, wildlife, water and fisheries, and the human impact on these resources. Three hours of lecture per week.

### **BTNY 2600 - Laboratory Safety**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary, team-taught course that will be an overview of the major chemical, biological and physical safety issues related to science laboratories and field work. Class will meet once per week and will be taught in a lecture/demonstration format.

### **BTNY 2830 - Readings in Botany**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Cannot be repeated.

### **BTNY 2920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times for a maximum of 6 credit hours with different content.

### **BTNY 2950 - Elementary Field Botany**

**Credits: (1-2)**

**Typically taught:**

**Not currently being offered**

Fundamentals of Botany as observed during field trips. Trips will be preceded by lectures and exercises designed to prepare the student for maximizing the learning experience in the field. The course involves extensive pre- and post-trip exercises and evaluation. May be repeated once for a maximum of 2 credit hours.

### **BTNY 3105 - Anatomy of Vascular Plants**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Anatomy of Vascular Plants explores the internal structures of higher plants. This course examines the structural organization of higher plants at all levels of organization -- from the subcellular, to cellular, to tissue, to organism level-- and pays close attention to how structure begets function from the subcellular to the ecological level. Additionally, students will learn different technical methods and equipment used to study plants' internal structures. Prerequisite: BTNY 2104.

### **BTNY 3153 - Biology of the Plant Cell**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A study of plant cell structure and function, including biogenesis and activities of organelles, signal transduction,, cell-cell interactions, and molecular processes involved in cellular development and responses. Three hours of lecture per week. Prerequisite: BTNY 2104, CHEM 1050 or CHEM 1120 or CHEM 2310.

### **BTNY 3204 - Plant Physiology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of the physiological processes of plants, including carbon metabolism, mineral assimilation, water relations, and

phytohormones. Two hours of lecture and two 3-hour labs per week. Prerequisite: BTNY 2104, CHEM 1050 or CHEM 1120 or CHEM 2310, and MATH 1050 or MATH 1080.

### **BTNY 3214 - Soils**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to the fundamental principles of soil science. Chemical, physical, geological, and biological properties of soils; Course will examine the role of soils as a fundamental ecological constraint through space and time on patterns and processes, such as plant distribution, nutrient cycling, and cycling of water between terrestrial ecosystems and the atmosphere. Course will also examine the human dimensions of soils as a natural resource, and the historical and current environmental impact of soil use and management. Three hours of lecture and one 3-hour lab per week. Course is cross listed with GEO 3214. Prerequisite: BTNY 2104, or GEO 1110, and CHEM 1050 or CHEM 1110 or CHEM 1210.

### **BTNY 3303 - Plant Genetics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

The principles of classical (Mendelian) and molecular genetics as applied to plants. Two hours of lecture and one 2-hour lab/discussion per week. Prerequisite: BTNY 2104 or MICR 2054, and CHEM 1050 or CHEM 1120 or CHEM 2310, and MATH 1050 or MATH 1080.

### **BTNY 3403 - Environment Appreciation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Development of awareness of the consequences of the impact of modern science through technology upon our environments and how we respond to issues related to threats of our biological life-support system. A definition of a quality environment is developed, with student input, and an analysis of the existing quality of our environment is made in light of this definition which challenges our collective wisdom to identify those things which we do well and to prescribe remedies for shortcomings. Three hours of lecture per week. An in-depth research paper on an environmental issue and an in-class lecture are required. Prerequisite: BTNY 2104 or BTNY 2114. Cannot be repeated for lower division credit (BTNY 1403).

### **BTNY 3454 - Plant Ecology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] even years**

Nature and development of plant communities and their relations to the environmental factors controlling them. Three hours of lecture and one 3-hour lab per week. Prerequisite: BTNY 2114, and MATH 1050 or MATH 1080.

### **BTNY 3473 - Plant Geography**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A study of global and regional distributions of major plant groups and communities as affected by past and present climates, biological, ecological and geomorphic factors. Three lectures per week. Prerequisite: BTNY 2114.

### **BTNY 3504 - Mycology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] odd years**

Structure, taxonomy, biology, and physiology of the fungi. Two hours of lecture and two 2-hour labs per week. Prerequisite: BTNY 2104 and BTNY 2114, or MICR 2054.

### **BTNY 3514 - Algology**

**Credits: (4)**

**Typically taught:**

**Not currently being offered**

A study of the biology of algae, their morphology, cytology, development, taxonomy, ecology, economic and experimental uses. Two hours of lecture and two 2-hour labs per week. Prerequisite: BTNY 2104 and BTNY 2114, or MICR 2054, or ZOOL 4480.

### **BTNY 3523 - Marine Biology**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

A study of marine biology and ecology, relating to the plant and animal populations of the sea to their various habitats, including the pelagic environment, the sea bottom, sea shores, and estuaries. Two hours of lecture and one 2-hour lab per week. Prerequisite: BTNY 2114, or ZOOL 1110, or MICR 2054, or GEO 3010.

### **BTNY 3570 - Foundations of Science Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A thorough investigation of research in science learning and curricular standards at the state and national levels. Foundations of the philosophy of science and scientific inquiry as applicable to science teaching at the secondary level. This course serves as a foundation to a preservice science teacher's education coursework.

### **BTNY 3583 - Medicinal Plants-Chemistry and Use**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

A study of plants and herbal preparations idely used in maintaining health and treating disease in traditional and modern societies. Active ingredients, modern use and side effects will be studied. In lab, students will learn to analyze plants,

over-the-counter-drugs and herbal supplements for active ingredients. Students will also learn how to make extractions and preparations from plant materials. This course is especially useful for students interested in careers in Pharmacy, Ethnobotany, Natural Medicine, Nursing and Medicine. Two hours of lecture and two 3 hour labs per week. Prerequisite: CHEM 1050 or CHEM 1120 or CHEM 2310 and CHEM 2315, *and* MATH 1040 or MATH 1050 or MATH 1080.

### **BTNY 3624 - Taxonomy of Vascular Plants**

**Credits: (4)**

**Typically taught:  
Summer [1st Blk]**

A study of the basic principles and concepts of vascular plant systematics with emphasis on the identification and classification of flowering plants. Two hours of lecture and two 2-hour labs per week. Prerequisite: BTNY 2114.

### **BTNY 3643 - Intermountain Flora**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]**

A taxonomic study of plants that are of major importance to the management of wildland resources. Students will learn to identify 300 of the most important grasses, woody plants, and marsh-aquatic plants. Considers federal laws for the regulation of rare and endangered species and habitat designation. One hour of lecture and two 2-hour labs per week. Prerequisite: BTNY 3624.

### **BTNY 4113 - Plant Evolution**

**Credits: (3)**

**Typically taught:  
Not currently being offered**

An exploration of fundamentals and issues of evolution through natural selection as it relates to plants including reproduction strategies, co-evolution, evolution of ecosystems, biochemical evolution and genomic evolution. Prerequisite: BTNY 2104, BTNY 2114, BTNY 3105, and BTNY 3303 or ZOO 3300.

### **BTNY 4252 - Cell Culture**

**Credits: (2)**

**Typically taught:  
Fall [Full Sem]**

Basic methods and applications for culturing plant and animal cells in vitro. Two 2-hour combined lecture and laboratory sessions per week. Prerequisite: BTNY 2104, or MICR 2054. cross-listed with Microbiology

### **BTNY 4570 - Secondary School Science Teaching Methods**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]**

Acquaintance and practice with various teaching and assessment methods. Development of science curricula including lesson and unit plans. It is recommended that this course be completed immediately before student teaching. Prerequisite: Admission to the Teacher Education Program.

### **BTNY 4750 - Topics in Botany**

**Credits: (1-5)**

An intensive exploration of selected issues in the discipline. The specific title and credit authorized will appear on the student transcript. Prerequisite: BTNY 2104 and BTNY 2114, and any specified courses selected by the instructor. May be repeated 4 times for a maximum of 5 credit hours.

### **BTNY 4800 - Individual Research**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Course may be repeated up to 10 times for credit. Prerequisite: BTNY 2104 and BTNY 2114 and BTNY 2121, two upper division Botany courses, and approval of instructor.

### **BTNY 4830 - Readings in Botany**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Course may be repeated up to 10 times for credit. Prerequisite: BTNY 2104 and BTNY 2114 and BTNY 2121, two upper division Botany courses, and approval of instructor.

### **BTNY 4840 - Thesis Readings**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Literature search and evaluation, culminating in the writing of a thesis proposal. Prerequisite: BTNY 2104 and BTNY 2114 and BTNY 2121, two upper division Botany courses, and approval of thesis advisor. Course may be repeated once for a maximum of 4 credit hours.

### **BTNY 4850 - Thesis Research**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent research related to a student's approved thesis proposal. May be repeated as long as satisfactory progress is being made on the thesis topic. Prerequisite: BTNY 4840 and approval of thesis advisor. Course may be repeated twice for a maximum of 6 credit hours.

### **BTNY 4890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students in the Botany Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Prerequisite: Two upper-division Botany courses. Course may be repeated 5 times for a maximum of 6 credit hours.

### **BTNY 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: BTNY 2104 and BTNY 2114 and BTNY 2121, and any specified courses selected by the instructor.

### **BTNY 4950 - Advanced Field Botany**

**Credits: (1-5)**

**Typically taught:**

**Spring [Full Sem]**

A concentrated study of the flora of a specific geographical region or an extended, organized field trip under supervision. The course involves extensive pre- and post-trip exercises and evaluation. Prerequisite: At least one upper division Botany course and specified courses selected by the instructor for a specific field trip as indicated in the schedule, and with consent of the instructor. Course may be repeated 4 times for a maximum of 5 credit hours.

### **BTNY 4970 - Botany Thesis**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Written and oral presentation of thesis research results and evaluation. Also includes final evaluation of the student's portfolio and taking of Botany graduation assessment examination. Prerequisite: BTNY 4850 and approval of thesis advisor.

### **BTNY 4980 - Portfolio Summative Assessment**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Final evaluation of the Botany Student Portfolio that was introduced in BTNY 2121, Career Planning for Botanists. Prerequisite: BTNY 2121. BTNY 4970 or BTNY 4990 may be taken concurrently.

### **BTNY 4990 - Seminar in Botany**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Oral presentation of either library research or individual research. Final evaluation of the student's portfolio and taking of Botany graduation assessment examination. The course is to be taken the last semester of the senior year. Prerequisite: Completion of or concurrent enrollment in courses needed to meet the minimum requirements for a degree in Botany.

### **BTNY 5030G - Botany for Teachers**

**Credits: (2-5)**

Science content course for teachers in MEd Science Emphasis Program. To register, select another departmental course and develop a contract detailing additional work required for graduate credit. Contract must be approved by instructor, department chair, and Director of the Master of Education Program. Course may be repeated up to 10 times.

### **CHEM 1010 PS - Introductory Chemistry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

This is a lecture-demonstration class designed to introduce the subject of chemistry and requires no prior chemistry experience. This class is designed for students who will not be majoring in a discipline that requires any further chemistry coursework. This course is not intended to prepare students for any future chemistry coursework.

### **CHEM 1050 PS - Introduction to General, Organic & Biochemistry**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

An introduction to general, organic and biochemistry designed primarily for students of nursing and other majors that require no more than one semester of chemistry. Four hours of lecture and one 3-hour lab a week.

### **CHEM 1055 - Introduction to General, Organic & Biochemistry Lab**

**Credits: (1)**

**Typically taught:**

**Offered as needed**

CHEM 1055 is a stand-alone lab course designed to accommodate transfer students from other universities. CHEM 1055 registration will be allowed only by special permission from the Chemistry Department Chair. Transfer students who have taken the CHEM 1050 lecture or equivalent without the lab should petition the Chemistry Department Chair for permission to take this course. Prerequisite: Must have completed or be currently enrolled in CHEM 1050 lecture or equivalent.

### **CHEM 1110 PS - Elementary Chemistry**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Fundamentals of inorganic chemistry and introduction to organic chemistry. The first course in a two-semester sequence designed primarily for students of nursing, engineering technology and some other fields of science and health professions who require no more than one year of chemistry. Four hours of lecture and one 3-hour lab a week.

### **CHEM 1115 - Elementary Chemistry Lab**

**Credits: (1)**

**Typically taught:**

**Offered as needed**

CHEM 1115 is a stand-alone lab course designed to accommodate transfer students from other Universities. CHEM 1115 registration will be allowed only by special permission from the Chair of Chemistry. Transfer students who have taken the CHEM lecture without the lab should petition the Chair of the Chemistry Department for permission to take this course. Prerequisite: Must have completed or currently be enrolled in CHEM 1110 lecture.

### **CHEM 1120 - Elementary Organic Bio-Chemistry**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Elementary study of the compounds of carbon and chemical compounds and reactions of biological systems. Four hours of lecture and one 3-hour lab a week. Prerequisite: CHEM 1110 or equivalent.

### **CHEM 1125 - Elementary Organic Bio-Chemistry Lab**

**Credits: (1)**

**Typically taught:**

**Offered as needed**

CHEM 1125 is a stand-alone lab course designed to accommodate transfer students from other Universities. CHEM 1125 registration will be allowed only by special permission from the Chair of Chemistry. Transfer students who have taken the CHEM 1120 lecture without the lab should petition the Chair of the Chemistry Department for permission to take this course. Prerequisite: Must have completed or currently be enrolled in CHEM 1120 lecture.

### **CHEM 1200 - Preparation for College Chemistry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

A course designed to provide the minimal prerequisite skills needed for entry into CHEM 1210. Three hours of lecture per week.

## **CHEM 1210 PS - Principles of Chemistry I**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This is the first course in a series designed primarily for science majors and others who will take more than one year of chemistry such as pre-medical students, clinical/medical laboratory scientists, and some engineering students. Course topics include components of matter, stoichiometry, major classes of reactions, gases and kinetic molecular theory, thermochemistry, quantum theory and atomic structure, models of chemical bonding, shapes of molecules, intermolecular forces, and properties of mixtures. The laboratory emphasizes qualitative and quantitative methods of analysis. Four hours of lecture and one 3-hour lab a week. Prerequisite: MATH 1010 or equivalent and CHEM 1200 or departmental approval. Prerequisite/Co-requisite: MATH 1050 or MATH 1080 or equivalent.

## **CHEM 1215 - Principles of Chemistry I Lab**

**Credits: (1)**

**Typically taught:**

**Offered as needed**

CHEM 1215 is a stand-alone lab course designed to accommodate transfer students from other Universities. CHEM 1215 registration will be allowed only by special permission from the Chair of Chemistry. Transfer students who have taken the CHEM 1210 lecture without the lab or High School AP students should petition the Chair of the Chemistry Department for permission to take this course. Prerequisite: Must have completed or currently be enrolled in CHEM 1210.

## **CHEM 1220 - Principles of Chemistry II**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

This is the second course in a series designed primarily for science majors and others who will take more than one year of chemistry such as pre-medical students, clinical/medical laboratory scientists, and some engineering students. Course topics include kinetics, equilibrium including aqueous solution equilibrium, thermodynamics, electrochemistry, and an introduction to inorganic, nuclear, and organic chemistry. The laboratory emphasizes qualitative and quantitative methods of analysis. Four hours of lecture and one 3-hour lab a week. Prerequisite: MATH 1050 or MATH 1080 or equivalent and CHEM 1210.

## **CHEM 1225 - Principles of Chemistry II Lab**

**Credits: (1)**

**Typically taught:**

**Offered as needed**

CHEM 1225 is a stand-alone lab course designed to accommodate transfer students from other Universities. CHEM 1225 registration will be allowed only by special permission from the Chair of Chemistry. Transfer students who have taken the CHEM 1220 lecture without the lab, or High School AP students should petition the Chair of the Chemistry Department for permission to take this course. Prerequisite: Must have completed or currently be enrolled in CHEM 1220 lecture.

## **CHEM 1360 PS - Principles of Physical Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A lecture/laboratory course designed to provide an introduction to the scientific method and its application to the study of selected topics in physics and chemistry. Two hours of lecture and one 3-hour lab per week. Recommended for Elementary Education majors.

## **CHEM 2310 - Organic Chemistry I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Principles of organic chemistry, including structure and reactivity of carbon based molecules. Detailed study of mechanisms, synthesis, and reactions. Alkane, alkyl halide, alkyne, alcohol, and ether families are covered. Four hours of lecture a week. Prerequisite: CHEM 1220. Co-Requisite: CHEM 2315 lab.

## **CHEM 2315 - Organic Chemistry I Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Lab course designed to be taken with CHEM 2310. Includes organic laboratory techniques, synthesis, product isolation, spectroscopy and analysis. Prerequisite: CHEM 1220. Co-Requisite: CHEM 2310 lecture.

## **CHEM 2320 - Organic Chemistry II**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Principles of organic chemistry, second semester. A continuation of structure and reactivity analysis, along with structure elucidation techniques, spectroscopy and synthetic reactions. Coverage includes aromatics, carbonyls, carboxylic acid derivatives, and sugars. Four hours of lecture a week. Prerequisite: CHEM 2310 and CHEM 2315. Co-Requisite: CHEM 2325 lab.

## **CHEM 2325 - Organic Chemistry II Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Lab course designed to be taken with CHEM 2320. Includes organic laboratory techniques, synthesis, product isolation, spectroscopy and analysis. Prerequisite: CHEM 2310 and CHEM 2315. Co-Requisite: CHEM 2320 lecture.

### **CHEM 2600 - Laboratory Safety**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary, team-taught course that will be an overview of the major chemical, biological and physical safety issues related to science laboratories and field work. Class will meet once per week and will be taught in a lecture/demonstration format.

### **CHEM 2890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Offered as needed**

Open to all students in the Chemistry Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. May be repeated 5 times with a maximum of 6 credit hours.

### **CHEM 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Offered as needed**

Consult the class schedule for the current offering under this number. The specific title with the credit authorized will appear on the student transcript.

### **CHEM 2990 - Chemical Technician Seminar**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

A course designed to provide the skills necessary to enter the job market as a Chemical Technician. One hour of lecture/discussion a week. Prerequisite: CHEM 1220.

### **CHEM 3000 - Quantitative Analysis**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory and methods of gravimetric and volumetric analysis and simple instrumentation. Includes statistical evaluation of results. Three hours of lecture and one 3-hour lab per week. Prerequisite: CHEM 1220. Prerequisite/Co-requisite: Prerequisite or co-requisite: CHEM 3020.

### **CHEM 3005 - Quantitative Analysis Lab**

**Credits: (1)**

**Typically taught:**

**Offered as needed**

CHEM 3005 is a stand-alone lab course designed to accommodate transfer students from other Universities. CHEM 3005 registration will be allowed only by special permission from the Chair of Chemistry. Transfer students who have taken the CHEM 3000 lecture without the lab should petition the Chair of the Chemistry Department for permission to take this course. Prerequisite: Must have completed or currently be enrolled in CHEM 3000 lecture.

### **CHEM 3020 - Computer Applications in Chemistry**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A course designed to provide students computer skills for applications including computation and electronic data bases searches. It is required that this course be taken before or with CHEM 3000. One hour of lecture/discussion a week. Prerequisite: CHEM 1210.

### **CHEM 3050 - Instrumental Analysis**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory and methods of modern instrumental analysis. Includes practical applications in electrochemical, spectrometric, and chromatographic techniques. Three hours of lecture and one three hour laboratory per week. Prerequisite: CHEM 3000.

### **CHEM 3060 - Applied Analysis**

**Credits: (1)**

**Typically taught:**

**Not currently being offered**

Applied Analysis using modern methods of analysis with an emphasis on speed and accuracy. One 3-hour lab per week. Prerequisite: CHEM 3000. Prerequisite/Co-requisite: CHEM 3050.

### **CHEM 3070 - Biochemistry I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Structure and function of biomolecules including proteins, nucleic acids, fats and carbohydrates. A focus on proteins as energy transforming and catalytic devices; their role in metabolism, defense and other biochemical processes. Three lectures a week. Prerequisite: CHEM 2310 and CHEM 2315.

### **CHEM 3075 - Biochemistry I Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Biochemistry lab course designed to accompany Biochemistry I Lecture, CHEM 3070. Includes biochemical concept illustration using chemical and biological techniques and experimentation. Prerequisite/Co-requisite: CHEM 3070.

### **CHEM 3080 - Biochemistry II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A detailed study of the molecular basis of life: nucleic acids, biosynthetic pathways, molecular aspects of disease and pharmacology. Three lectures a week. Prerequisite: CHEM 2320, CHEM 2325, and CHEM 3070.

### **CHEM 3090 - Biochemical Techniques**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Advanced techniques including instrumentation for biochemistry. One 3-hour lab per week. Prerequisite: CHEM 2320, CHEM 2325, and CHEM 3070, with CHEM 3080 being prerequisite or co-requisite. To be taken concurrently with CHEM 3080.

### **CHEM 3400 - Molecular Symmetry and Applied Math for Physical Chemistry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to molecular symmetry, experimental error analysis, and physical chemistry applications of algebra, linear algebra, and differential equations. Prerequisite: MATH 1220. Co-Requisite: CHEM 3410.

### **CHEM 3410 - Foundations in Physical Chemistry**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

The one-semester foundation course in Physical Chemistry covering chemical thermodynamics and kinetics with an introduction to quantum mechanics through application to spectroscopy. Three hours of lecture and one 3-hour lab a week. Prerequisite: CHEM 1220, Prerequisite/Co-requisite: PHYS 2220.

### **CHEM 3570 - Foundations of Science Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A thorough investigation of research in science learning and curricular standards at the state and national levels.

Foundations of the philosophy of science and scientific inquiry as applicable to science teaching at the secondary level. This course serves as a foundation to a preservice science teacher's education coursework.

### **CHEM 3610 - Foundations in Inorganic Chemistry**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

A foundation course for chemistry majors and minors. Topics include atomic properties, bonding, molecular symmetry, solid state structures, and transition metal complexes. This class will meet for 3 hours each week with one 3 hour laboratory per week. Prerequisite: CHEM 1220, and MATH 1060 or MATH 1080.

### **CHEM 4250 - Medicinal Chemistry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Medicinal chemistry is a fast-paced and important field that has direct impacts on overall world health and quality of life. This 3-credit-hour course is designed for students with an interest in chemistry, biochemistry, pharmacology, and medicine. It will provide an in-depth look at how pharmacologically active molecules are designed, how they chemically interact with their targets, and how they work molecularly to treat human diseases. Selected case studies will be used to illustrate the concepts being covered. In line with our university mission, an over-arching theme will be looking at how medicinal chemistry affects our worldwide community with emphasis on patents, drug development costs, risks, and ethics. Prerequisite: CHEM 3070.

### **CHEM 4420 - Quantum Chemistry**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

The second semester course of Physical Chemistry covering quantum mechanics, statistical mechanics, and chemical reaction dynamics. Three hours of lecture and one 3-hour lab a week. Prerequisite: CHEM 3000 and CHEM 3410 and CHEM 3610.

### **CHEM 4540 - Spectrometric and Separation Methods**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Theory and practice of spectrometric and separation methods in the study of chemical systems. Three hours of lecture and one 3-hour lab per week. Prerequisite: CHEM 4420 or permission of instructor.

### **CHEM 4550 - Geochemistry**

**Credits: (3)**

**Typically taught:**

**Even years**

The chemistry of the earth and geochemical processes operating in the lithosphere, hydrosphere, and atmosphere with a synthesis of these ideas to account for the chemical evolution of the earth. Applications to mineral stability and chemical reactions, geochemical cycles, and isotope geochemistry. Three hours of lecture a week. Prerequisite: CHEM 1220 and GEO 2050 or consent of instructor.

## **CHEM 4570 - Secondary School Science Teaching Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Acquaintance and practice with various teaching and assessment methods. Development of science curricula including lesson and unit plans. It is recommended that this course be completed immediately before student teaching.

Prerequisite: Admission to the Teacher Education Program.

## **CHEM 4620 - Advanced Inorganic Chemistry**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Students will learn how to use symmetry and current bonding theories to explain and predict the structure, properties and reactivity of inorganic molecules. They will explore the breadth of inorganic chemistry including organometallic chemistry, bioinorganic chemistry, and catalysis. The research based laboratory experience focuses on the synthesis, characterization, and testing of inorganic compounds using state of the art techniques and instrumentation. Three hours of lecture and one 3-hour lab a week. Prerequisite: CHEM 3610.

## **CHEM 4700 - Special Topics in Chemistry**

**Credits: (1-3)**

**variable title**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course may be repeated twice for a maximum of 3 credit hours. Prerequisite: CHEM 4420 or permission of instructor.

## **CHEM 4710 - Chemical Preparations**

**Credits: (1-3)**

**Typically taught:**

**Not currently being offered**

Synthesis and determination of the properties of selected chemical compounds. Three to nine hours of lab a week.

Prerequisite: Permission of the instructor.

## **CHEM 4800 - Research and Independent Study in Chemistry**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to qualified students for one or more semesters. May be repeated for credit up to 12 times with instructor approval.

## **CHEM 4890 - Cooperative Work Experience**

**Credits: (1-6)**

A continuation of CHEM 2890. Open to all students. May be repeated for credit up to 12 times with instructor approval.

## **CHEM 4920 - Short Courses, Workshops, Institutes and Special Programs**

### **Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 3 times with a maximum of 4 credit hours.

## **CHEM 4990 - Senior Seminar**

### **Credits: (1)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A seminar course where students will share their research results with fellow students and faculty in written and oral formats. Prerequisite: CHEM 4800 or permission of instructor.

## **CHEM 5030G - Chemistry for Teachers**

### **Credits: (3-5)**

Science content course for teachers in the M. Ed Science Emphasis Program. To register, select another departmental course and develop a contract detailing additional work required for graduate credit. Contract must be approved by instructor, department chair, and Director of the Master of Education Program. May be repeated twice with a maximum of 5 credit hours.

## **CHF 1400 - Marriage and Romantic Relationships**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk Online]**

An introductory survey course which addresses individual, interpersonal, and developmental dynamics essential for sustaining interpersonal and marital relationships.

## **CHF 1500 SS/DV - Human Development**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A survey course which addresses the developmental aspects of individuals across the lifespan. Course content encompasses the study of biological, cognitive, social, and emotional developmental changes of the healthy individual in the context of the family and society. It emphasizes and demonstrates the vital connections between theory, research, and application.

## **CHF 2100 - Family Resource Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Understanding the significance of values, goals, attitudes and planning strategies in the management of human, economic and environmental resources as they relate to increasing satisfaction and the enhancement of family relationships.

## **CHF 2400 SS/DV - Family Relations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, 1st Blk Online]**

Examines dynamics of the healthy family using family theory, individual life span development, research, and active learning experiences.

## **CHF 2500 - Development of the Child**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk Online]**

Examines the major physical, socioemotional, and cognitive/language developmental milestones for children, both typical and atypical, through middle childhood. There is an emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students observe children, evaluate individual differences and analyze characteristics of development at various stages. Prerequisite: CHF 1500.

## **CHF 2600 - Introduction to Early Childhood Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An overview of the historical roots of early childhood education; theoretical approaches, developmentally appropriate practice, types and efficacy of early childhood programs; and political issues and ethical conduct within the early childhood profession. 3 hours lecture per week and 12 hours field observation. Prerequisite: CHF 1500, concurrent or prior enrollment in CHF 2500, or instructor consent.

Students enrolling in CHF 2600, CHF 2610 and CHF 2620 will be working with families and children; the State of Utah requires a background check and clearance. Applicants must be fingerprinted and complete a background check before being fully accepted into the program. A handout available from the department secretary explains the procedure and nominal expenses. If the background check reveals misconduct, you will not be allowed to enroll in these courses or any others that include field experience, practica or student teaching. Background checks require up to eight weeks and should be completed, or in progress, prior to enrolling in CHF 2600, CHF 2610, and CHF 2620 courses. See the department secretary for further details.

### **CHF 2610 - Guidance Based on Developmental Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The development of a philosophy and a plan of action for guiding the child based on theories of development. Lectures combine with laboratory experiences to provide opportunity for building relationships with young children. Students complete a minimum of 24 hours practicum arranged by the instructor. Prerequisite: CHF 1500.

### **CHF 2620 - Planning Creative Experiences for Young Children**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Development of attitudes, materials, and skills needed to plan and teach age, individually, and culturally appropriate curriculum for young children. Students complete a minimum of 24 hours practicum arranged by the instructor. Prerequisite: CHF 1500, CHF 2500, CHF 2600, and CHF 2610.

### **CHF 2670 - STEM and Approaches to Learning in Early Childhood**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is to build on a foundation of knowledge of developmentally appropriate practice for teaching integrated content in the disciplines of science, technology, engineering, and math (STEM) in early childhood settings. Fundamental approaches to learning will be employed to integrate learning across these disciplines. Students will develop meaningful curriculum content through hands-on learning experiences designed for children (birth through age 8) based on accepted learning standards in each content area. Prerequisite: CHF 2600, CHF 2610, CHF 2620.

### **CHF 2830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individually chosen readings on specialized topics supervised by a faculty member. Prerequisite: Consent of faculty supervisor prior to registration. May be repeated up to 3 credit hours.

### **CHF 2850 - Child Development Associate Training**

**Credits: (2)**

Understanding child development concepts and applying them to teaching situations with young children. The Professional Resource File in preparation for National Child Development Associate Credential (CDA) is compiled during the course.

### **CHF 2860 - Practicum**

**Credits: (2-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Work experience which applies prior academic learning in a supervised setting. Prerequisite: For Early Childhood majors: CHF 1500, CHF 2500, CHF 2600, CHF 2610, CHF 2620, or consent of faculty advisor prior to registration. May be repeated up to 6 credit hours.

### **CHF 2890 - Cooperative Work Experience**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students in the Child and Family Studies Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job learning experience with coordination of faculty instructor and professional mentor. Ethical conduct related to working with children and families will be discussed. Professional activities will include goal setting, strategies, and documentation for progress evaluation meetings culminating in a student-created professional development portfolio. Students will arrange their own opportunities in a professional setting. Prior consent of the faculty instructor and the professional mentor are required. Fingerprinting/background check may be needed to work in certain settings. Prerequisite: For Early Childhood AAS majors: CHF 2860, or consent of faculty advisor.

### **CHF 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**(when needed)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated up to 6 credit hours.

### **CHF 2990A - Seminar in Child Development**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Discussion and analysis of readings and selected topics in growth, development, and education of the young child. Prerequisite: CHF 1500, CHF 2500, CHF 2600, CHF 2610, CHF 2620, and concurrent or prior enrollment in CHF 2860, or instructor's consent.

### **CHF 2990B - Seminar in Family Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Discussion and analysis of special topics for Family Studies majors including professional skills, professional credentials, and the development of professional ethics.

### **CHF 3150 - Consumer Rights and Responsibilities**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

The role and responsibilities of the family and its members as consumers. An exploration of marketplace fact and fraud and identification of consumer resources.

### **CHF 3350 - Diverse Families**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A comparative analysis of various types of ethnic families in the United States reflecting their social and political dynamics with extensive coverage of the family lifestyles, traditions and values. Several American ethnic groups will be examined including historical background, key ethnic cultural components, traditional and current ethnic family characteristics, and changes and adaptations to the ethnic family and culture.

### **CHF 3400 - Development in Middle Adulthood**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

The content of this course is designed to create a foundation of knowledge and understanding for the required core competency of the nationally recognized Family Life Education Content areas. Specifically addressing competency area number 3, Human Growth and Development across the Lifespan. The course will focus on normative and non-normative individual developmental processes, as well as systemic dynamics of social context surrounding and impacting middle-aged development. Prerequisite: CHF 1500.

### **CHF 3450 - Adult Development**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [1st Blk]**

Growth and development through young, middle, and late adulthood within a developmental and family system context. Prerequisite: CHF 1500.

### **CHF 3500 - Young Children at Risk**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Focuses on the elements of the child's history, status, biological traits, and social circumstances that have the potential of placing the child in a position of risk in early childhood settings during the early childhood period. Prerequisite: CHF 1500 or equivalent.

### **CHF 3550 - Parenting Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

A course designed to assist in the acquisition of skills and knowledge regarding the understanding and facilitation of contemporary parents in their parenting role. Course content will include conceptualizations and strategies from both contemporary theoretical and applied perspectives. Prerequisite: CHF 1400, CHF 1500, and CHF 2400, or consent of instructor.

### **CHF 3570 - Infants and Toddlers: Development and Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an in-depth study of physical, cognitive, language, social, and emotional development from prenatal period through toddlerhood. Practical application and assessment play an integral part of the course. Students will be introduced to observation, early intervention, and relationship-based care in diverse settings. Students complete a minimum of 24 hours practicum arranged by the instructor. Prerequisite: CHF 1500 and CHF 2500.

### **CHF 3620 - Curriculum Planning for Kindergarten**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to planning curriculum in kindergarten with an emphasis on design of learning environments and curriculum that are developmentally appropriate and evidence based. Students complete a minimum of 24 hours practicum. Student are required to complete a background check by the beginning of the semester. Prerequisite: CHF 1500; CHF 2500; CHF 2610.

### **CHF 3640 - Working with Parents**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Prepares students to be advocates and practitioners of parent involvement by exploring philosophies, processes, and methods for working with parents and involving them in their child's learning process. Components of family structure, economics, cultural diversity, second-language learners, communication skills, community resources, and a model for parent involvement are integrated into the student experience. Prerequisite: CHF 1500.

### **CHF 3650 - Family Processes**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An examination of family internal dynamics and family systems for the purpose of enrichment, problem prevention and education. Prerequisite: CHF 2400.

### **CHF 3680 - Teaching Experience in the Preschool**

**Credits: (3)**

Provides students an opportunity to be an assistant teacher, to observe and interact with children on an individual and group basis; plan, develop, and implement activities for children. Prerequisite: CHF 1500, CHF 2610 and CHF 2620, or consent of instructor.

### **CHF 3850 - Current Research Methods in Child and Family Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to the methods and types of research used in the study of family issues and processes. Focus of the course includes the development of student knowledge and skills used in applying the scientific method in family studies contexts. Understanding, reviewing, evaluating, and interpreting the methods and conclusions reported in the professional empirically based journals will also be emphasized. Prerequisite: CHF 1500, CHF 2400.

### **CHF 4130 - Language Development and Emergent Literacy in Early Childhood**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course explores current theory, research, and evidence based practices for promoting early language and emergent literacy development (birth 8 years) in home, child care, prekindergarten, and primary education environments through collaborative practices between early childhood professionals and parents. Prerequisite: CHF 1500.

### **CHF 4201 - Coaching EC/ECE Professionals: Foundation & Organization of Coaching Application: Organization & Self Reflection**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Educator coaching is an evidence-based strategy to increase program quality and teacher effectiveness in early childhood/early childhood education classrooms, programs, and home delivery systems. This course will train EC/ECE coaches using material from research-based sources and program experiences. Participants will learn recommended practices in coaching related to early childhood and develop a systematic, individualized approach to effective coaching. Participants will learn practical strategies for coaching early childhood staff of diverse backgrounds and varying adult learning styles. Materials and discussions will include interpersonal communication skills and a systematic approach to more intentional coaching. Students will apply these strategies to Case Studies and field work experiences throughout the course and will participate in hands-on activities in class to apply new skills. Coaching skills will apply to any EC/ECE curriculum or model. This is course 1 in a three course series for the Utah Coaching Credential.

## **CHF 4202 - Coaching EC/ECE Professionals: Connecting Awareness with Application & Deepening of Practice**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Becoming an effective coach is a result of introspection, thoughtful planning, application of coaching skills and knowledge, and continuous self-improvement. This course will identify effective ongoing support strategies for individuals providing coaching. Participants will integrate skills with effective application in real life coaching experiences. Discussions will include self-reflective practices, self-directed action, planning and goal setting, and managing progress and accountability. Students will apply these strategies to case studies and real life experiences throughout the course. Students will be encouraged to engage in self-reflection and share ideas, successes, and challenges with other students in this course. This is course 2 in a three course series for the Utah Coaching Credential. Prerequisite: CHF 4201/MED 6201 or instructor permission.

## **CHF 4203 - Coaching EC/ECE Professionals: Attuning for Personal and Organizational Change**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The success of the educator coaching relationship has been based on the trusting relationship between two peers, coach, and adult learner, through a collaborative process of co-learning. The opportunity for the adult learner to self-monitor, self-analyze, and self-modify enhances the adult learner's own resourcefulness and alters his/her own personal understanding. In addition, when the act of coaching is a collaborative process, the coach is also allowed the same opportunity to reflect on self as part of their learning. This course is designed to support the coach in creating a social learning climate where a synergy of shared learning and reflective dialogue about practice are examined, analyzed and refined. Participants will integrate skills from Course 1 and 2 with opportunities to engage in conducting and constructing ongoing support strategies the coach can apply, refine and alter based on the adult learners' needs, readiness, and values about practice. Using strategies and protocols, coaching for organizational change in diverse settings (home-based programming, early care settings, classrooms, and school districts, etc.), and identifying effective ongoing personal supports will also be addressed. Students will apply these strategies to case studies and real life experiences throughout the course. This is course 3 of a three course series for the Utah Coaching Credential. Prerequisite: CHF 4201/MED 6201 and CHF 4202/MED 6202 or instructor permission.

## **CHF 4300 - Latino Child and Family Development**

**Credits: (3)**

**Typically taught:**

**Spring [Online]**

**Summer [1st Blk]**

The Latino Child and Family Development course is designed as an upper division course for those who will work with, advocate for, or interact with children and families from a Latino background. The course uses a cultural constructivist approach to understand Latino children and their families. The central focus includes the study of Latino culture, parenting practices, couple and marital practices, and other family dynamics. Additionally, a major goal is to understand and deconstruct stereotypes associated with individuals within the Latino culture. The course will simultaneously focus on Latinos living within the United States as well as cultural groups throughout North America, South America, and the Caribbean.

## **CHF 4310 - Understanding the Modern United States Military Family**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to assist you in understanding the structure and formation of each service branch as well as the experiences of families serving in the U.S. Military focusing on both Active duty and Reserve components using Family Systems Theory, Risk and Resiliency Theory and Ambiguous Loss Theory. In recent years, many changes have taken place in the military family landscape. The knowledge gained in this course should provide you with insight into the complex experiences of today's U.S. Military Families. The information provided in this course is designed to assist students to be effective in professional settings working with military personnel and their families, and is a starting foundation for those interested in pursuing professional civilian careers working with military families in a variety of settings (e.g., nonprofit organizations, the U.S. Military, and others). This course will focus on different components of family life that specifically impact military families. The course format will include (1) readings, (2) online lectures, (3) quizzes, (4) exams, and (5) online and in class discussion. Prerequisite: CHF 1400, CHF 1500, CHF 2400.

### **CHF 4400 - The Family in Stress**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

Examining causes of stress in the family and developing strategies for coping with stress.

### **CHF 4450 - Children and Families in the Medical Setting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to understand and serve children and families in the medical setting and to provide basic background and knowledge of Child Life practices. This course prepares individuals who plan to complete a 480 hour cooperative work experience in the field of Child Life, and is required prior entering into an internship and taking the National Child Life Certification Examination.

The content of this course is designed to create a foundation of knowledge, both academically and practically, in the required core competencies of the nationally recognized Child Life Certification. The core competencies include the ability to assess and provide services to infants, children, youth, and families in a medical setting including stress management, supportive environments, team skills, professional development, and evaluation skills.

### **CHF 4500 - Comparative Study of Childhood and Adolescent Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

An advanced level course that addresses the understanding of the principles and theories of growth and development within and between the stages of children in childhood and adolescence. Covers the physiological, intellectual, social, emotional domains of development. Prerequisite: CHF 1500 and CHF 2400.

### **CHF 4510 - Contemporary Issues in Planning for Children**

**Credits: (1-3)**

**Variable Title**

An in-depth study of a contemporary issue in childhood. In some cases, this course may substitute for one of the minor requirements when it has received prior approval from a department advisor. May be repeated up to 3 credit hours.

### **CHF 4520 - Basic Mediation Training**

**Credits: (3)**

**Typically taught:  
(when needed)**

A basic mediation training course addressing the theory and skills to effectively deal with conflict situations. The course leads to certification in basic theory and skills of mediation. (Supervised mediation practice is required to complete certification.)

### **CHF 4600 - Family Studies Field Experiences**

**Credits: (1-8)**

**Typically taught:  
(when needed)**

Six to eight weeks internship, which may require off-campus residence. Credit and hours as arranged with instructor. Prerequisite: consent of instructor. May be repeated up to 8 credit hours.

### **CHF 4650 - Family Life Education Methods**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]  
Spring [Full Sem]**

Preparing students to be Family Life Educators by exploring philosophies, methods, and skills for teaching and working with parents and family members. Prerequisite: CHF 3350, CHF 3550, and CHF 3850, or consent of instructor.

### **CHF 4660 - Advanced Skills for Family Life Educators**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]  
Spring [Full Sem]**

This upper division course is centered on students' development of interpersonal and pedagogical skills as Family Life Educators under the direct supervision of course instructors. This theory-based course will provide students with hands-on skills and experiences that are vital for today's family life educators. This includes building audience engagement and trust through the use of observational feedback, responding to nonverbal cues, and addressing common teaching challenges. This course will teach students to present specific family life education program curricula. The course training will include students reviewing and presenting the family life education materials in two contexts: 1-within the classroom among peers and faculty and 2-within the community. This course also provides students with a number of teaching tools and philosophies considered key to becoming effective in the field of Family Life Education, and it also provides students with the experience of having presented a community education program in multiple contexts. Prerequisite: CHF 1400, CHF 1500, CHF 2400, CHF 2990B.

## **CHF 4670 - STEM and Approaches to Learning in Early Childhood**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to build on a foundation of knowledge of developmentally appropriate practice for teaching integrated content in the disciplines of science, technology, engineering, and math (STEM) in early childhood settings. Fundamental approaches to learning will be employed to integrate learning across these disciplines. Students will develop meaningful curriculum content through hands-on learning experiences designed for children (birth through age 8) based on accepted learning standards in each content area. Prerequisite: CHF 2600, CHF 2610, CHF 2620.

## **CHF 4710 - Advanced Guidance and Planning for Early Childhood Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A synthesis of guidance and planning with an emphasis on assessment, appropriate objectives and strategies for individual and specific groups of children. Requires both lecture and lab time. Students majoring in EC, ECE, or taking an early childhood specialization with their K-6 license will register for the section that is offered the first 5 weeks of the semester, and take it concurrently with CHF 4720. Prerequisite: CHF 1500, CHF 2500, CHF 2600, CHF 2610, CHF 2620, and CHF 3640.

## **CHF 4720 - Student Teaching in the Children's School**

**Credits: (3-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Experience in application of generalizations regarding growth, guidance, and development of children in the Melba S. Lehner Children's School. For juniors and seniors. Prerequisite: CHF 1500, CHF 2500, CHF 2600, CHF 2610, CHF 2620 and CHF 3640. To be taken concurrently with CHF 4710. (Will be taken the last 10 weeks of the semester.) May be repeated 2 times up to 9 credit hours.

## **CHF 4730 - Early Childhood/Early Childhood Education Program Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course prepares students with skills specific to leadership roles in early childhood education programs including: professional ethics, ensuring the health and safety of children, ongoing quality improvement, program leadership, planning, and management. Content and skills focus on practices endorsed by the National Association for the Education of Young Children (NAEYC) and are aligned with the NAEYC Standards for Early Childhood Professional Preparation Programs. Prerequisite: CHF 2600, CHF 2610, CHF 2620, or consent of the instructor, and concurrent or prior enrollment in CHF 4710 and CHF 4720.

### **CHF 4800 - Individual Research**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised projects and primary research in various areas of Child and Family Studies. Limited to advanced students upon consent of faculty supervisor. May be repeated up to 6 credit hours.

### **CHF 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Individually chosen readings on specialized topics supervised by a faculty member. Credit for this course towards a Child and Family Studies major or minor will only be accepted when the course is completed with a grade of B- or better. Prerequisite: Consent of faculty supervisor prior to registration. May be repeated up to 3 credit hours.

### **CHF 4860 - Practicum**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Work or volunteer experience which applies prior academic learning in a supervised setting. Consent of faculty supervisor is required prior to registration. Prerequisite: for Family Studies Majors include CHF 2990B, CHF 3350, CHF 3550, CHF 3650, CHF 3850, and completed background clearance. May be repeated up to 6 credit hours.

### **CHF 4890 - Cooperative Work Experience**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students in the Child and Family Studies Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job learning experience with coordination of faculty instructor and professional mentor. Ethical conduct related to working with children and families will be discussed. Professional activities will include goal setting, strategies, and documentation for progress evaluation meetings culminating in a student-created professional development portfolio. Students will arrange their own opportunities in a professional setting. Prior consent of the faculty instructor and the professional mentor are required. Fingerprinting/background check may be needed to work in certain settings. Prerequisite: for Early Childhood BS majors: CHF 4710 and CHF 4720, or consent of faculty supervisor.

### **CHF 4900 - Career Strategy Seminar**

**Credits: (1)**

Open to first semester Juniors through first semester Seniors in all academic schools. Course objectives are to help

students develop a career strategy to meet expected career goals, i.e., acquire a career position or successfully prepare for graduate school acceptance.

### **CHF 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:  
(when needed)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated up to 6 credit hours.

### **CHF 4980 - Early Childhood Senior Synthesis Seminar**

**Credits: (1)**

Synthesis of Early Childhood/Elementary Education program of study with specific emphasis on beginning a professional career in teaching. Senior project not required. To be taken concurrently with student teaching.

### **CHF 4990A - Seminar in Child Development**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]  
Spring [Full Sem]**

Discussion and analysis of special topics for advanced Early Childhood and Early Childhood Education majors. Prerequisite: CHF 2500, CHF 2600, CHF 3640, and CHF 3500 (or EDUC 2010) or instructor's consent, and concurrent or prior enrollment in CHF 4710 and CHF 4720.

### **CHF 4990B - Senior Seminar in Family Studies**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]  
Spring [Full Sem]**

Discussion and analysis of special topics for seniors in Family Studies major. Prerequisite: CHF 2990B, CHF 3350, CHF 3550, CHF 3850, or consent of instructor.

### **CJ 1010 SS - Introduction to Criminal Justice**

**Credits: (3)**

**Typically taught:  
Fall [Full Sem]  
Spring [Full Sem, Online]  
Summer [Full Sem, Online]**

An introduction to the history, processes and functions of the American criminal justice system and its primary components, law enforcement, courts, and corrections.

### **CJ 1070 - Law Enforcement/Corrections Academy, Part I**

**Credits: (9)**

Experiential credit for students completing a State of Utah authorized SFO/BCO or SFO/LEO POST Academy. Credit is earned concurrently with CJ 1080. Register through the Department of Criminal Justice. *Does not count for credit toward CJ major, CJ minor or BIS emphasis in CJ.*

### **CJ 1080 - Law Enforcement/Corrections Academy, Part II**

**Credits: (9)**

Experiential credit for students completing a State of Utah authorized SFO/BCO or SFO/LEO POST Academy. Credit is earned concurrently with CJ 1070. Register through the Department of Criminal Justice. *Does not count for credit toward CJ major, CJ minor or BIS emphasis in CJ.*

### **CJ 1300 - Corrections: History, Theory and Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

An introductory overview of the correctional system including: the historical development and societal context of corrections, contemporary correctional theory and law, jails and prisons, community corrections, treatment, juvenile corrections, and contemporary correctional issues.

### **CJ 1330 - Criminal Law and Courts**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem]**

**Summer [Online]**

Surveys American criminal law and the criminal court system. Elements of crime, defenses, historical foundation, limits, purposes and functions of criminal law. History, theory and practice of criminal courts.

### **CJ 1340 - Criminal Investigation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

This is an introduction to Criminal Investigation including the necessary functions of interviewing witnesses and suspects, techniques in the collection and preservation of evidence, crime scene processing including some post-crime scene processing of evidence, follow-up investigation and recent techniques of enhancing the criminal investigation function.

### **CJ 1350 - Introduction to Forensic Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

An introduction to the various types of physical evidence commonly encountered at crime scenes (e.g., fingerprints, hairs, fibers, drugs, glass, etc.), including discussion of comparison and identification techniques (i.e., optical examination/comparison, instrumental analysis, and many chemical processes) used in the analysis of such physical evidence.

### **CJ 2300 - Policing: History, Theory and Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

This course will provide an overview of the history of policing and the role of police in modern society. Particular emphasis will be placed on problems and issues confronting police and solutions within an organizational framework.

### **CJ 2330 - Juvenile Justice**

**Credits: (3)**

**Typically taught:**

**Summer [Online]**

Origin, philosophy, and development of the juvenile justice system, particularly the juvenile court. Emphasis placed upon laws, detention, adjudication, probation, after-care, foster homes, and other alternative correctional practices.

### **CJ 2340 - Crime Scene Investigation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to give students an understanding of the integration of the criminal investigative process with complex scientific application of modern technology in searching for and processing physical evidence in crime scenes. It will provide background into the theory behind Crime Scene Science and the ethical and legal challenges faced by Forensic Scientists and Crime Scene Investigators. Using modern instructional materials, students will learn of the complexity of processing and documentation of Crime Scenes with the ultimate goal of having a successful outcome in the court system. Prerequisite: CJ 1350.

### **CJ 2350 - Laws of Evidence**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Deals with the principles and rules of law emphasizing evidentiary problems related to criminal cases.

### **CJ 2810 - Experimental Course**

**Credits: (1-3)**

This number is used for newly developed experimental courses. May be repeated up to two additional times if new topic(s), for a combined total not exceeding 9 credit hours.

### **CJ 2860 - Criminal Justice Field Experience**

**Credits: (3)**

**Typically taught:**

**Not currently offered (see CJ 4860)**

Field experience in an internship with city, county, and state criminal justice agencies. May be repeated once for 6 credit hours.

### **CJ 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title with the credit authorized will appear in the semester schedule and on the student transcript. May be repeated up to one additional time for a combined total not exceeding 4 credit hours.

### **CJ 3020 - Criminal Justice Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Current command level problems and trends in criminal justice organizations and management including work environment, motivation, leadership, morale, discipline, evaluation, planning, and functioning of line and staff.

### **CJ 3040 - Community Policing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Problem solving and the development of community trust are integral to community policing. The philosophy, concepts and methods in support of identifying the issues in a community that relate to crime are outlined and studied. The goal of creating healthy neighborhoods and sustaining the quality of neighborhood life are explained in detail. Crime is pervasive in American society, but victims and criminals have identified characteristics. These characteristics impact certain neighborhoods more than others. These characteristics and issues surrounding them are explored and researched.

### **CJ 3060 - Corrections in the Community**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

An overview of community based correctional programs focusing upon the historical origin, development, and current practices in probation, parole, the halfway house, work and educational release, as well as furlough programs.

### **CJ 3120 - Professional Practice for the Forensic Expert**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth analysis of critical issues for forensic experts in all fields. Topics such as evidence preservation, report writing, expert testimony and ethics are investigated. The course will focus on theory and practice through lecture, writing and practical exercises. 2 hour lecture, 3 hour lab. Prerequisite: CJ 1350; or instructor approval.

### **CJ 3130 - Investigation of Computer Crime**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Deals with the threats, vulnerabilities, and risks of unauthorized system access. Understanding the modus operandi of criminal acts associated with computer crime and how to investigate them. Cryptography and network security will be closely examined.

### **CJ 3270 - Theories of Crime and Delinquency**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Study of the nature, extent, causes, and treatment of crime. Prerequisite: CJ 1010.

### **CJ 3300 - Victimology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

This course is designed to review key research areas in the field of victimology. Particular emphasis will be placed on theory, measurement, and empirical results related to different types, consequences, and prevention of victimization. Prerequisite: CJ 1010.

### **CJ 3340 - Crime Scene Photography**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online]**

Theory and practice behind photographic documentation of crime scenes. Practice of proper documentation methodology, injury photography, evidence photography special lighting considerations, etc. This hybrid course is a combination of lecture, laboratory, community workshops, and individual exercises. Prerequisite: CJ 2340 and ART 2450.

### **CJ 3344 - Advanced Forensic Photography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

This course addresses photography and imaging issues relevant to the forensic science laboratory including examination quality physical evidence imaging, alternative lighting and exposure techniques, digital camera calibration and maintenance, and courtroom presentation of image evidence. Prerequisite: CJ 3340.

### **CJ 3350 - The American Jail**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Online]**

Course critically examines the American jail with particular emphasis on history, management, operations and contemporary issues.

### **CJ 3360 - Prisons - Contemporary Issues and Dilemmas**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A course which focuses upon the contemporary adult prison with a particular emphasis upon current problems, issues and dilemmas. Diversity issues such as integration of the prison work force by women and minorities as well as the problems of elderly, women, and minority inmates will be examined.

### **CJ 3400 - Drugs and Crime**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The historic, economic, social and political roles of legal and illegal drugs; their contribution to crime of many kinds, accidents, and impacts on the criminal justice system; production and distribution systems; efforts to combat; decriminalization, prevention and treatment.

### **CJ 3600 - Criminal Justice Statistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

An introduction to descriptive and inferential statistics and data analysis for use in criminal justice and the social sciences. Prerequisite: CJ 1010 and WSU Math Competency.

### **CJ 3700 - Women & Criminal Justice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Course explores women within the American criminal justice system, focusing on females as the victim and perpetrator of crime as well as the various positions that they hold within the criminal justice profession (i.e. law enforcement, courts, corrections). Additional attention will be paid to the social construction of gender and how it can shape the creation and application of social control within society.

### **CJ 3800 - White Collar Crime**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This is an advanced undergraduate course designed to provide an overview of white collar crime. The course emphasizes defining white collar crime, describing the nature of white collar crime, and applying criminological theories to explaining the perpetration of white collar crime.

### **CJ 4000 - Critical Legal Studies**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Critical Legal Studies comprehends the development and application of the criminal law and criminal justice institutions in the United States from a critical perspective. The course begins with a short review of slavery and race, civil rights and civil liberties, and the transformation of legal thought in America. Readings provide a perspective for how the criminal law and justice system are used to bolster the lives of the affluent classes while remaining oblivious or acting as a detriment to the lives of disadvantaged, under-represented and marginalized members of society. The course concludes with readings that provide an understanding for the meaning of justice, the role of the law in fostering a more just society, and the legal tools available to the advocate of social change to propose changes through legal reform.

### **CJ 4065 - Law and Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course explores how law operates in society and how society influences the nature of the law. Topics may include the role of race in law, legal consciousness, efficacy of legal action, and the nature of the legal profession. Students may take either POLS 4065 or CJ 4065, but may not take both courses.

### **CJ 4110 - Physical Methods in Forensic Science**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Physical methods for evidence analysis including microscopy, pattern based physical evidence (firearms, footwear, etc.) pattern recovery and analysis and statistical foundations for pattern comparison. Prerequisite: CJ 2340, CJ 3120 and either CHEM 1120 or CHEM 1220; or instructor approval.

### **CJ 4115 - Friction Ridge Analysis**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Legal and scientific methodology behind identification, analysis and comparison of finger and palm prints including computer database methodology. 3 hours lecture, 1 hour lab. Prerequisite: CJ 2340, CJ 3120 and either CHEM 1120 or CHEM 1220; or instructor approval.

### **CJ 4116 - Friction Ridge Development**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem]**

Basic and applied scientific theory and practice behind the detection, development, recovery and preservation of latent finger and palm prints. 3 hours lecture, 3 hour lab. Prerequisite: CJ 4115.

### **CJ 4125 - Research Methods in Forensic Science**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

Selected topics in forensic instrumentation, trace evidence, pattern evidence, biological and chemical analysis, research methods and data analysis. 3 hours lecture, 3 hour lab. Prerequisite: CJ 4110, or instructor approval.

### **CJ 4165 - Constitutional Rights**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

This course critically examines Amendments to the United States Constitution related to criminal justice issues including the 4th, 5th, 6th, 8th, and 14th amendments. It examines citizen's rights and criminal justice agent's responsibility and liability in connection with those rights. Prerequisite: CJ 1010 and CJ 1330.

### **CJ 4200 - Ethical Issues in Criminal Justice**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem, Online]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Critically examines selected criminal justice ethical issues such as capital punishment, official corruption, use of deadly force, discretion and deception by the police. Prerequisite: CJ 1010.

### **CJ 4300 - History of Law Enforcement**

**Credits: (3)**  
**Typically taught:**  
**Not currently being offered**

An introduction to the history of America's law enforcement organizations, stressing the development, community issues, and organizational designs. The early leaders in policing and the early crime problems in America will be discussed and studied. From slave patrols prior to the Civil War to the U.S. Marshals of the old west, police development issues will be presented.

### **CJ 4700 - International Criminal Justice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Compares United States criminal justice system with other international systems from throughout the world, and reviews the nature and extent of international crime. Prerequisite: CJ 1010.

### **CJ 4810 - Experimental Course**

**Credits: (1-3)**

This number is used for newly developed experimental courses. May be repeated up to two additional times if new topic(s), for a combined total not exceeding 9 credit hours.

### **CJ 4830 - Directed Readings and Special Projects**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Assigned reading or project with evaluation by faculty member. Requires approval of the Department Chair. May be repeated for up to 6 credit hours cumulative course work. May not be used as an elective to complete CJ minor or A.S.

### **CJ 4860 - Criminal Justice Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Volunteer experience with city, county, and state criminal justice agencies. Junior or Senior standing and CJ majors only. Students may take this course for a combined total of six (6) credit hours.

### **CJ 4900 - Current Issues in Criminal Justice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

In-depth study of current theoretical issues in criminal justice. Specific offering will be identified by name and will be listed on student's transcript with authorized credit. May be repeated two additional times, for a total of three such classes with different titles.

## **CJ 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title with the credit authorized will appear in the semester schedule and on the student transcript. May be repeated up to one additional time for a combined total not exceeding 4 credit hours.

## **CJ 4950 - Field Trips/Travel Study**

**Credits: (1-6)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Designed to provide students with access to both national and international law enforcement agencies, prisons, detention centers, courts and institutions dealing with criminals and delinquents - male and female. Field trips include 2-3 weeks of intense instruction and then 3-5 days of on-site visits, interviews, and lectures by practitioners in the field. Course may be repeated for a total of six (6) hours of criminal justice credit. Additional hours will be counted toward 120 elective hours of study. May not be used as an elective to complete CJ minor or A.S.

## **CJ 4980 - Research Methods in Criminal Justice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem]**

**Summer [Full Sem, Online]**

Addresses the social scientific methodology utilized in criminal justice and criminological research. The essentials of the scientific method will be studied such as research design, probability sampling, qualitative methods and the classic experimental design. The course will familiarize the student with the methods and problems of social science research as applied to the information needs of criminologists, criminal justice agencies, and criminal justice policy-makers. Students will acquire a better sense of criminology or criminal justice research and of exactly what it is that academic researchers do. Prerequisite: CJ 1010, CJ 3600 and junior or senior standing; or instructor approval.

## **CJ 4995 - Criminal Justice Senior Capstone**

**Credits: (1)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

Program assessment for graduating seniors combined with an exploration of selected issues and dilemmas surrounding the criminal justice field. Credit/No credit. Prerequisite: Criminal Justice major core course requirements completed and senior standing; or department chair approval.

### **CMT 1100 - Construction Management Orientation**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This course introduces students to careers in the construction industry and is designed to help students develop a clear focus on their educational and occupational goals.

### **CMT 1150 - Construction Graphics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course covers graphical communications as they relate to the architectural, engineering, and construction industry. Includes print reading, interpretation of graphical symbols and line types, and understanding of construction terminology.

### **CMT 1210 - Residential Construction Materials and Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course provides students with knowledge of residential building techniques and materials. The course will examine common construction materials, components, and systems as related to wood frame structures, including sustainable materials. The residential construction process will be analyzed from site planning to finish construction.

### **CMT 1220 - Construction Contracts**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the interpretation of contract documents used in the various construction delivery methods. Includes contracts, bidding documents, bonding and insurance, conditions of the contract, general requirements, and technical specifications.

### **CMT 1310 - Materials & Methods**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course covers the materials and construction methods used in buildings. Emphasis is placed on sustainable construction practices.

### **CMT 1330 - Civil Materials**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the properties of concrete, asphalt, and soils. Emphasis is placed on quality control and testing of materials.

### **CMT 1500 - Computer Applications in Construction**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Computer applications used in the construction field will be examined. Various software packages will be introduced and studied specifically to their application in the construction industry. Prerequisite: WEB 1700.

### **CMT 1550 - Construction Safety**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

This course covers the Occupational Safety and Health Act (OSHA) and jobsite safety procedures and practices. Emphasis will be placed on ethics as it relates to safety.

### **CMT 2210 - Construction Jobsite Management**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

This course covers the skills necessary to manage construction projects successfully. Emphasis is placed on construction communications and documentation. Prerequisite: CMT 1100 and CMT 1220.

### **CMT 2260 - MEP**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem]**

This course is designed to provide a basic knowledge of mechanical, electrical, and plumbing (MEP) systems used in commercial buildings. Emphasis is placed on sustainable MEP systems and analyzing life-cycle costs. Prerequisite: MATH 1010.

### **CMT 2340 - Civil Design and Layout**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

This course is designed to provide a basic knowledge of road, utility, and site design. Emphasis is placed on determining grades and surveying operations necessary for layout of civil designs, including establishing locations and elevations. Prerequisite: MATH 1010.

### **CMT 2360 - Commercial Design and Codes**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem]**

This course is designed to provide a basic knowledge of processes used to design commercial buildings. Includes the use of building information modeling (BIM) in the design process for preparing drawings and coordinating the design of the

different building trades. Emphasis is placed on how zoning regulation, building codes, and sustainability are integrated into the design. Prerequisite: MATH 1010, CMT 1150, and CMT 1310.

### **CMT 2410 - LEED-GA Preparation**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This course will help prepare students to take the LEED-GA exam.

### **CMT 2640 - Quantity Survey**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course covers the processes and methods used to develop a quantity takeoff (list of required materials) for commercial construction projects. Emphasis is placed on using spreadsheets to prepare the quantity takeoff. Prerequisite: MATH 1010 or higher, CMT 1150, CMT 1310.

### **CMT 2880 - Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised work experience in the construction industry with placement and course objectives approved by the faculty supervisor. Ethics as it relates to construction management will be discussed.

### **CMT 2899 - AAS Graduation Assessment and Signoff**

**Credits: (0)**

This course includes final assessment (e.g., exit interviews) and signoff needed for graduation with an AAS degree from the program. Contact your advisor during your last semester before graduation to complete this requirement. Credit/no credit.

### **CMT 2990 - Construction Management Seminar**

**Credits: (0.5)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

This course is designed to give students the opportunity to interact with professionals from the architecture, engineering, and construction industries and to learn of emerging trends within these industries. Students may repeat this course three times and up to 2 credits.

### **CMT 3115 - Construction Cost Estimating**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course covers the processes and methods for preparing estimates and bids for construction projects. Emphasis is placed on the use of computers in preparing estimates. Ethics as it relates to bidding will be discussed. Prerequisite: CMT 2640.

### **CMT 3130 - Construction Planning & Scheduling**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course covers the processes and methods of planning and scheduling of construction projects. Emphasis is placed on the use of computers in the planning and scheduling process. Prerequisite: CMT 2640.

### **CMT 3310 - Leadership in the Construction Industry**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course explores leadership as applied to the construction industry. Emphasis is placed on the importance of professional relationships. Prerequisite: CMT 2210.

### **CMT 3370 - Preconstruction Services**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course covers services provided by contractors during the design of projects constructed using alternative delivery methods (e.g., design-build, CM/CG). Emphasis is placed on reducing construction risks during the design process. Prerequisite: CMT 2260, CMT 2340, CMT 2360, and CMT 3115.

### **CMT 3510 - Energy Management in Bldg. M&E Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course covers mechanical and electrical system design, operation and maintenance principles. Includes review of types of systems and equipment, and applications for each. Covers estimating, monitoring and managing the use of energy. Prerequisite: CMT 2260.

### **CMT 3540 - Facilities Management Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Practical applications of the administrative principles and skills required of a successful facility manager focusing on administration, management, and leadership of the facility function, finance and accounting, repair, alterations and maintenance, planning, programming, budgeting and execution.

### **CMT 3630 - Environmental Issues in FM**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Practical application of environmental practices and procedures pertinent to preservation, protection, compliance and conservation issues related to facilities management with emphasis on the regulatory and permitting process, environmental planning, auditing and assessment, recycling, indoor air quality (IAQ) and ozone level depleting substances (OLDS), Environmental Protection Agency (EPA) programs and permitting procedures, Occupational Health and Safety Act (OSHA) programs, and sustainable practices. Prerequisite: BTNY 1403 (can be taken concurrently).

### **CMT 3660 - Energy Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

The course addresses the methodologies of estimating annual energy consumption, undertaking energy audits, and monitoring and targeting energy consumption of fossil fuels. The material covered is for building services engineering, building engineering, and environmental engineering in facilities management. Prerequisite: CMT 3510.

### **CMT 3680 - Facility Management Administration and Operations**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course covers operational principles and leadership skills required of a successful senior-level facility management professional.

### **CMT 4120 - Construction Accounting and Finance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course covers the fundamental principles of construction finance, accounting, and cost control. Prerequisite: ACTG 2010.

### **CMT 4150 - Construction Equipment and Methods**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the use of equipment used on heavy/civil construction projects. Emphasis is placed on equipment selection, production rates, and unit cost. Prerequisite: CMT 3115.

### **CMT 4210 - Facility Planning and Layout**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Practical aspects of facilities planning as a function of location and design with specific application to the following facilities: manufacturing and production, warehousing, and other commercial uses.

#### **CMT 4270 - Computer Aided FM**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

This course covers current computer-based technologies available to the facility manager.

#### **CMT 4310 - Long-term Planning in Facility Management**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

This course covers financial and physical planning activities required to meet future needs of the successful Facility Management Organization.

#### **CMT 4330 - Applied Structures**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem]**

This course covers the processes and methods used to analyze the behavior of engineered structures. Includes the application of the properties of materials and mechanics as they relate to the structural behavior of load resisting components. Prerequisite: PHYS 2010.

#### **CMT 4350 - Temporary Structures**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

This course covers basic design of temporary structures. Emphasis is placed on formwork, scaffolding, dewatering, and excavation shoring. Prerequisite: CMT 1330 and CMT 4330.

#### **CMT 4510 - Design Charrette**

**Credits: (1)**  
**Typically taught:**  
**Fall [1st Blk]**

Students will work in multi-disciplinary teams to solve real-world construction problems. Prerequisite: CMT 3115 and CMT 3130.

#### **CMT 4520 - ASC Student Competition**

**Credits: (1)**  
**Typically taught:**  
**Fall [2nd Blk]**

Students will work in multi-disciplinary teams to solve real-world construction problems. This course requires students to participate in the ASC Region 6 Student competition. Prerequisite: CMT 3115 and CMT 3130.

### **CMT 4570 - Approaches to Construction Contracting**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the development of a business plan for a small construction company. Prerequisite: PS 3250, CMT 2210, and CMT 4120.

### **CMT 4620 - Senior Project**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course is a culminating experience for students from the program. Requires integration of concepts from a variety of coursework to prepare and present a solution to a construction problem. Prerequisite: PS 3250, CMT 2210, CMT 3115, CMT 3130, CMT 3370, CMT 4120, and CMT 4330.

### **CMT 4650 - FM Senior Project**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

The application of skills, knowledge, techniques and concepts to an actual facility's management project. Emphasis on integrating the concepts taught in the facilities management classes. Students must apply for Senior Project the semester before they plan to take CMT 4650. Prerequisite: CMT 3115, CMT 3130, CMT 3630, CMT 3660, CMT 3680, CMT 4210, CMT 4270 and CMT 4310, or instructor approval. CMT 3630, CMT 3660, CMT 3680, CMT 4210, CMT 4270, and CMT 4310 may be taken concurrently.

### **CMT 4800 - Individual Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individual research or projects in Construction Management Technology. Credit and time determined by the student and faculty advisor. Prerequisite: Junior or Senior standing and consent of instructor. May be repeated up to 9 credit hours.

### **CMT 4830 - Directed Studies**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The student will receive credit for approved studies in an area not covered in the CMT program. Credit and time determined by the student and faculty advisor. Prerequisite: Junior or Senior standing and consent of instructor. May be repeated up to 9 credit hours.

### **CMT 4890 - Practicum**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised work experience in the construction industry with placement and course objectives approved by the faculty supervisor. This course can be used to help the student satisfy the CMT program requirement of 800 hours of approved supervised work experience. Ethics as it related to construction management will be discussed. Prerequisite: CMT 2880. May be repeated up to 9 credit hours.

### **CMT 4899 - BS Graduation Assessment and Signoff**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course includes final assessment (e.g., exit interviews) and signoff needed for graduation with a BS degree from the program. Contact your advisor during your last semester before graduation to complete this requirement. Credit/no credit.

### **CMT 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (.5-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized for the particular offering will appear on the student transcript. Prerequisite: Junior or Senior standing and consent of instructor. May be repeated up to 4 credit hours.

### **COMM 1020 HU - Principles of Public Speaking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Introduces theories and principles of effective speaking with emphasis on: audience analysis and adaptation, listening, organization, content development, use of language, and extemporaneous delivery. Designed to improve the student's ability to research, organize, develop and make presentations.

## **COMM 1040 - Convocations**

**Credits: (1)**

**Typically taught:**

**Not currently offered**

Features distinguished speakers and artists in broad fields of humanities, sciences, technology, education, national and world affairs, and specialized artists in the fine arts from specialties such as music, theatre, interpretation, ballet and art. May be repeated 5 times up to 6 credits.

## **COMM 1130 - Media Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Beginning instruction in information-gathering techniques and media writing styles that inform, entertain and/or persuade. Approach recognizes that new technology is blurring the distinctions among various media and that writers must have a broad base of knowledge and skills. Prerequisite: Proficiency in word processing.

## **COMM 1140 - Writing for Workplace Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to teach communication appropriate to the workplace with an emphasis on written forms. It covers content, organization, tone, grammar and formatting across multiple contexts: presentations, professional biographies, email, executive summary, letters of commendation and complaint, press releases and business and training proposals. It uses verbal communication such as interviewing in addition to primary and secondary research to provide substance in professional communication.

## **COMM 1270 - Analysis of Argument**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students will learn to analyze, evaluate, develop and refute arguments using formal argumentation methods and research based evidence. The course is designed to increase student competence and confidence in constructing, defending and critiquing a broad range of arguments found in public discourse.

## **COMM 1500 - Introduction to Mass Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

Examines mass media development and impact upon society. Considers newspapers, magazines, film, radio, TV and multimedia. The role of media in providing information, opinion, entertainment and advertising support are considered along with the social political-economic controls which affect the media.

### **COMM 1560 - Audio Production and Performance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introductory course in audio production and performance. Training in audio console operation, use of recorders and microphones, and audio editing. Class includes basic announcing and formatting for radio stations. Course emphasizes hands-on projects.

### **COMM 2010 HU - Mass Media and Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Media literacy course which examines the non-legal, but ethical and social problems of mass media. Discusses current media issues and explores constructive steps to improve media relationships.

### **COMM 2110 HU - Interpersonal and Small Group Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Explores the dynamics of verbal and nonverbal communication in personal relationships and small groups. The emphasis is on practical application of course content to enhance interpersonal relationships and to achieve competence as group members.

### **COMM 2200 - In-studio Video Production and Performance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introductory course in all aspects of in-studio video production. Skills include performing for video as well as the use of cameras, switching, lighting, electronic graphics and audio equipment. In-class projects emphasize directing, writing and performing for video.

### **COMM 2210 - Intercollegiate Debate**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Preparation and competition on the national debate resolutions and participation in individual events. Prerequisite: Permission of instructor. May be repeated 7 times up to 8 credits. However, only 6 credits may be used toward the Communication major.

### **COMM 2250 - Essentials of Digital Media**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course introduces the basic digital communication skills necessary to be successful in today's multimedia environment. Students will learn how to produce and edit audio, stills, and video. Students will also learn to upload content for presentation on the Web and will learn to use social media to disseminate information relative to your content. Concepts will first be discussed in two lecture periods, and then put into practice in a lab.

### **COMM 2270 - Argumentation and Debate**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An examination of the theory and practice of argumentation with emphasis on parliamentary and policy debate formats. Emphasis also placed on making claims and inferences, research and the use of evidence, cross-examination, case construction, rebuttals and style of presentation.

### **COMM 2550 - Communication in Professional Settings**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This class is designed to acquaint students with many of the major theories, concepts, and research findings related to the study of organizational communication and public relations. While this class will include a theoretical component, it is designed to be a more "hands on" or "practical skills" course. The information should be of practical value since individuals spend much of their lives in organizations and other professional settings.

### **COMM 2730 - Digital Radio Production and Broadcast**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Students meet once a week for one and two-credit options, or twice a week for the three-credit option. Students work as contributors to the Weber State student streaming radio station, KWCR. Work includes detailing the tasks of station management, announcing, content generation, production, news, sales or engineering. Two hours in the studio a week are required for single-credit registrants, Four hours for two-credit registrants, and four hours in-studio work as well as a final portfolio of work for three-credit registrants. May be taken up to four times for a total of four credits.

### **COMM 2751 - Narrative Digital Filmmaking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

On-location video production and performance. Skills include screenwriting, directing, producing, use of field cameras and post-production. Prerequisite: COMM 2250.

### **COMM 2890 - Cooperative Work Experience for The Signpost**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Newspaper lab experience at The Signpost for those who want the experience of gathering and producing news. Students will learn facets of producing a print and/or on-line publication and promoting the content on social media. Skills include news reporting and writing, advertising, design and photography. May be taken 3 times and up to 6 credits total. 3 credits requires instructor approval. The 3-credit option will be used for those seeking an Associate in Workplace Communication.

### **COMM 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

### **COMM 2999 - Capstone in Workplace Communication and Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

This class provides an opportunity for students to synthesize and demonstrate their learning in the Associate of Workplace Communication program. The primary purpose of this course is to help students transition from earning an associate's degree to pursuing a job and/or continued education toward a bachelor's degree. The course will include employment-related content such as interviewing skills, job shadows, career research, portfolios, resumes, and cover letters. The course will also include a section on workplace ethics to develop responsible and productive professionals. Cross-listed with ENGL 2999. Prerequisite: Permission of Instructor.

### **COMM 3000 - Communication Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is intended to provide students with an overview of communication theory. It will give students a working knowledge of theories used to explain a wide range of communication phenomena, enabling them to build upon selected theories in other upper-division courses in their chosen communication major concentration. Prerequisite: COMM 2110 or permission of instructor.

### **COMM 3050 - Interpersonal Communication and Conflict Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The purpose of this course is to provide students an opportunity to explore interpersonal communication concepts in depth. Upon successful completion of this course, students will have a greater understanding of interpersonal communication theories and strategies and will be able to enrich their relationships with personal application of this material. A special emphasis will be given to conflict management as an interpersonal communication skill. Students will be provided the analytical and communication tools to understand, evaluate, and respond effectively to conflicts. Prerequisite: COMM 3000 or permission of instructor.

### **COMM 3060 - Listening and Interviewing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course covers the purpose, structure, focus, and techniques employed in effective listening and interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing in a variety of interviewing settings. This course is designed to offer students insight into improved listening and interviewing practices. The theory and research concerning the process of listening and the practice of interviewing will form the basis for students' understanding about listening and interviewing behavior. This course then applies that knowledge to the development of listening and interviewing skills. Prerequisite: COMM 3000 or permission of instructor.

### **COMM 3070 - Performance Studies**

**Credits: (3)**

**Typically taught:**

**Check with Department**

Study of aesthetic texts through performance featuring the view of text or literature as communicative event and textual meaning as response in readers and audience. A primary emphasis will be placed on the relationship between performative choices and textual understanding. Prerequisite: COMM 1020 or permission of instructor.

### **COMM 3080 - Intercultural Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Explores theoretical perspectives in intercultural communication. Through analysis of various intercultural theories, students will become aware of cultural influences on communication in both international and domestic cultures. Prerequisite: COMM 2110 or permission of instructor.

### **COMM 3085 - Family Communication**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

No activity is more fundamental to emotional need fulfillment, overall personal satisfaction, and the maintenance of community-social systems than family communication. It is in the recursive cycle of family communication that we learn how to relate to others. This course examines current studies in family communication research and its implications. Students will add to the scholarship of family communication by completing a research project in conjunction with this course. Prerequisite: COMM 2110 or permission of instructor.

### **COMM 3090 - Gender and Communication**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to help students understand the influence that communication has upon the shaping of gender and the influence that gender has in shaping communication interactions. Students become aware of, sensitive to, and more experienced in the issues, implications and skills necessary to successfully and meaningfully communicate with males and females, and about males and females, in a wide range of communication contexts. Prerequisite: COMM 2110 or permission of instructor. Cross listed in WGS 3090.

### **COMM 3100 - Small Group Facilitation and Leadership**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theories and practical communication processes are examined and applied to develop fundamental attitudes and skills for facilitating and leading effective groups. Prerequisite: COMM 2110 or permission of instructor.

### **COMM 3120 - Advanced Public Speaking**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Enhanced speaking skills across a range of situations such as the professional workplace and via social media. Increase understanding of audience, publics, and the overall definition of "speaking" as a result of our ever-changing society. Prerequisite: COMM 1020 or permission of instructor.

### **COMM 3130 - News Reporting and Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Develops journalism skills relevant to newspapers and online news services. Emphasizes news gathering, interviewing and news writing. Prerequisite: COMM 1130 or permission of instructor.

### **COMM 3150 - Communication Research Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Explores methods of gathering, analyzing and interpreting data. Topics include: asking questions, observing and measuring communication variables; designing valid and reliable research; research ethics, experimental design and survey research. Emphasis is also placed on how to present research and how to read scholarly journal articles. Prerequisite: COMM 3000 or permission of instructor.

### **COMM 3200 - Live Event Production**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will learn to operate field video cameras, switchers, instant-replay and other equipment while experiencing the pressures of live-sports production. Students will be part of a crew supplying the visuals for Weber State's football and basketball scoreboards. The crew will also provide visuals necessary to fulfill production commitments. (A maximum of 6 credit hours total may be counted for the major, however, 6 additional credit hours may be used as elective credit.)

### **COMM 3220 - Editing**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

Develops editing knowledge and skills for print and online publications. Covers copy editing, content editing and page editing. Prerequisite: COMM 1130 or permission of instructor.

### **COMM 3230 - Health Communication**

**Credits: (3)**

**Typically taught:**

**Check with Department**

A broad examination of communication theory, application, and research in health care delivery and management. Examines many different levels and channels of communication including the development and application of interpersonal communication, small group communication and teamwork, organizational communication, communication ethics, leadership, and motivation skills in dealing with health care providers, staff, and consumers in a variety of health care environments. Cross-listed with HAS 3230.

### **COMM 3350 - Visual Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Visual messages have great power to inform, educate and persuade. In all fields of communication, visual presentation of the message helps determine the success of the message. This course is designed to help students become effective and ethical visual communicators on the page or the screen. In addition to creating design projects, students will learn how to critically analyze visual designs and to understand major visual communication theories. Prerequisite: COMM 1130.

### **COMM 3400 - Introduction to Public Relations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Philosophy and practice of public relations in business, government, education and non profit organizations. Case studies will be selected from a wide range of actual public relations concerns to foster decision-making skills and a mature understanding of public relations management. Prerequisite: COMM 1130 or permission of instructor.

### **COMM 3440 - Public Relations Writing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Explores principles and practices of a variety of public relations writing formats ranging from news releases to websites. Prerequisite: COMM 3400 or permission of instructor.

### **COMM 3460 - Public Relations and Social Media**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

This course will combine theory and practice in teaching the principles of the new "Social Media" or "PR 2.0." Students will learn how new web technologies have expanded the practice of Public Relations beyond the traditional arena and into the fast-moving and dynamic world of public communication on the web. They will learn how to communicate with the news media and directly with the public. The course will prepare them to use the newest technology and practices effectively as they represent their companies and their clients.

### **COMM 3550 - Organizational Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of communication in organizations from various theoretical perspectives with an emphasis on the organizational culture perspective. Includes topics such as communicating with external audiences, decision-making, conflict resolution, and power relationships. Prerequisite: COMM 3000 or permission of instructor.

### **COMM 3650 - Communication Law**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

First Amendment origins, interpretations and philosophy underlying regulation of the mass media. Prerequisite: COMM 3000 or permission of instructor.

### **COMM 3730 - Media Programming and Audiences**

**Credits: (3)**

**Typically taught:**

**Check with Department**

This course focuses on principles, strategies and approaches for creating and scheduling content for radio, television and the World Wide Web. The course also provides an analytical framework for understanding industry trends in media programming, and how those trends are influenced by audience research. Students create and schedule programs, apply programming strategies and philosophies, and learn relevant terminology and audience measurement techniques. Prerequisite: Permission of instructor.

### **COMM 3740 - Writing for Screen and Television**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Specialized concepts and techniques required to write effectively for film, television, and other new media technologies.  
Prerequisite: COMM 1130.

### **COMM 3780 - Broadcast News Writing and Production**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Classroom instruction and practical experience in writing, reporting, performing, producing, and editing for television news. Students will produce newscasts for a local cable channel. Prerequisite: COMM 1130 and COMM 2250, or permission of instructor.

### **COMM 3820 - Persuasive Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of theories and principles of persuasion from classical to modern times. Examines persuasion as a means of influence in interpersonal communication, public speaking, public relations, advertising, politics, and other contexts.  
Prerequisite: COMM 3000 or permission of instructor.

### **COMM 3850 - Advertising**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A practical and theoretical study of advertising. Course is designed for students planning careers in advertising, as well as for those who are simply lifelong consumers of advertising and want to understand its role in the economic system.  
Prerequisite: COMM 1130 or permission of instructor.

### **COMM 3890 - Advanced Cooperative Work Experience with Signpost**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to students who are Signpost editors and managers. Prerequisite: COMM 1130 or permission of instructor. (A maximum of 6 credit hours total from COMM 3890, COMM 3891, COMM 3892 and COMM 3893 may be counted for the major, however, 6 additional credit hours may be used as elective credit.)

### **COMM 3891 - Advanced Cooperative Work Experience with KWCR**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to students who are KWCR senior staff. Prerequisite: COMM 2730 or permission of instructor. (A maximum of 6 credit hours total from COMM 3890, COMM 3891, COMM 3892 and COMM 3893 may be counted for the major, however, 6 additional credit hours may be used as elective credit.)

### **COMM 3892 - Advanced Cooperative Work Experience with Public Relations**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Prerequisite: COMM 3400 and permission of instructor. (A maximum of 6 credit hours total from COMM 3890, COMM 3891, COMM 3892 and COMM 3893 may be counted for the major, however, 6 additional credit hours may be used as elective credit.)

### **COMM 3893 - Advanced Cooperative Work Experience with Studio 76**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to students who are members of Weber State News' crew or staff and/or crew members of other student produced television programs. Prerequisite: COMM 2250 or permission of instructor. (A maximum of 6 credit hours total from COMM 3890, COMM 3891, COMM 3892 and COMM 3893 may be counted for the major, however, 6 additional credit hours may be used as elective credit.)

### **COMM 4130 - In-depth and Investigative Journalism**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Emphasizes finding and writing news stories that move from explanations of what happened to how and why something happened. Examines research techniques and discusses ways to use the law to access information. Prerequisite: COMM 1130 or permission of instructor.

### **COMM 4150 - Rhetorical Theory and Criticism**

**Credits: (3)**

**Typically taught:**

**Check with Department**

Studies the origins of rhetorical theory in Greece and Rome in the works of Corax, Isocrates, Plato, Protagoras, Aristotle, Cicero and Quintilian. Tensions between rhetoric and philosophy. Study and application of neo-classical standards of rhetorical criticism. Prerequisite: COMM 3820.

### **COMM 4160 - Contemporary Rhetorical and Communication Theories**

**Credits: (3)**

**Typically taught:**

**Check with Department**

Study of contemporary rhetorical and communication theories. Prerequisite: COMM 3000 and COMM 4150 or permission of instructor.

### **COMM 4210 - Intercollegiate Debate**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Preparation and competition on the national debate resolutions and participation in individual events. Prerequisite: COMM 2270 or permission of instructor. May be repeated 7 times up to 8 credit hours. However, only 6 credits may be used toward the Communication major.

### **COMM 4400 - Public Relations Media and Campaigns**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Apply communication principles to internal and external publics; research, plan and evaluate social interrelationships; study of the controlled and uncontrolled media and their role in public relations; prepare a major public relations campaign for a selected client. Prerequisite: COMM 3150 and COMM 3440, or permission of instructor.

### **COMM 4440 - Developing and Evaluating Health Communication Campaigns**

**Credits: (3)**

**Typically taught:**

**Check with Department**

This course prepares students to understand the planning, implementation, and refinement of communication campaigns that affect individual and group level behavior changes in relation to health care issues. It will thus address public health problems. Throughout the semester, students study, practice, and apply the various stages of a health communication campaign based on real world conditions. The course content will draw from health behavior theory; formative (including pretesting), process, impact, and outcome research; and expert opinion. Prerequisite: COMM 3400 or permission of instructor.

### **COMM 4500 - Topics in Communication**

**Credits: (3)**

**variable title**

The study and application of Communication in contemporary society is dynamic and ever changing. This course will provide students with opportunities to explore specialized topics in contemporary journalism, electronic mediated communication, human communication studies, and public relations in a seminar format. Prerequisite: COMM 3000 or permission of instructor. May be taken 2 times up to 6 credit hours with different designations.

### **COMM 4750 - Advanced Cinematography and Editing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Capstone course for audio and video production. Emphasis is placed on combining production types to produce longer and more complex programs. Prerequisite: COMM 2250.

### **COMM 4760 - Media Management and Distribution**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem, 1st Blk]**

Analysis of complex systems necessary to manage media companies. Students will develop a website and a distribution plan for a new media company. Prerequisite: COMM 1500 or permission of instructor.

### **COMM 4800 - Special Study and Individual Projects**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Work with an assigned faculty member on a project of special interest. May be repeated for a maximum of 6 credit hours. Prerequisite: COMM 3000 and permission of instructor. May be taken 3 times up to 6 credit hours. A maximum of 3 credit hours may be counted for the major.

### **COMM 4801 - College of Arts & Humanities Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **COMM 4840 - Teaching Journalism and Advising Student Media in the Secondary School**

**Credits: (3)**

**Typically taught:**

**Check with Department**

Prepares students to be teachers of journalism and advisors of student media in secondary schools. Designed to confront problems involved in organizing a staff, gathering material and publishing a newspaper, yearbook and literary magazine. Prerequisite: COMM 3000 or permission of instructor.

## **COMM 4850 - Teaching Speech and Directing Speech Activities in the Secondary School**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

Methods and techniques for teaching speech communication in secondary schools. Techniques and practices for coaching and supervising high school speech activities such as individual events, legislative forum, and debate. Prerequisite: COMM 3000 or permission of instructor.

## **COMM 4860 - Communication Co-curricular Leadership**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to teach leadership and management skills to students who have taken on leadership roles within the Communication Department co-curriculars: WSU Debate, The Signpost, KWCR, Studio 76 and Ogden Peak Communications. With instructor permission, student leaders take this class in lieu of the co-curricular course during the semester of enrollment and are expected to fulfill their co-curricular responsibilities as well as participate in monthly leadership seminars and one-on-one mentoring sessions with their advisers. Prerequisite: Permission of instructor AND COMM 3890, COMM 3891, COMM 3892, COMM 3893 OR COMM 2210. May be repeated up to 6 credit hours.

## **COMM 4890 - Communication Internship**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

An opportunity for students to receive academic credit for faculty approved on-the job learning experiences within certain communication areas of emphasis. Prerequisite: COMM 3000. May be repeated for 5 times up to 6 credit hours. A maximum of 3 credit hours may be counted for the major. *Credit/No credit only.*

## **COMM 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

## **COMM 4990 - Senior Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A capstone course that prepares students to do a senior project and a portfolio to be used in job interviews or application to graduate school. Prerequisite: Communication major, COMM 3000 and COMM 3150.

## **CS 1010 CA - Introduction to Interactive Entertainment**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

This course examines and analyzes the history, philosophy, and impact of digital entertainment (video and computer games along with simulations) on an individual and society. Students take a critical look at the artistic, but also the cultural, economic and social aspects of this expressive medium. Students imagine and articulate their own ideas and work through a series of projects helping them understand the creative challenges behind interactive entertainment design. Implications of certain values embedded in games will be discussed. Elements of the ethical code of conduct for a game creator will be formulated. The issue of balancing individual creativity vs. socio-cultural impact will also be discussed. Students will be required to play video games outside of the regularly scheduled class times. A lab fee is required for this class.

## **CS 1022 - Software Development**

**Credits: (4)**

Application of the most recent implementation of a selected programming language to the solution of technical and scientific problems. Prerequisite: CS 1030 and basic skills in Algebra.

## **CS 1023 - Selected Programming Language**

**Credits: (4)**

Introduction and application of the most recent implementation of a selected programming language to the solution of technical and scientific problems. The language for a particular instance of this course will be based upon demand. Prerequisite: CS 1030 and basic skills in Algebra.

## **CS 1030 - Foundations of Computing**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

This course follows the core body of knowledge specified by the ACM which provides students with a broad overview of topics they might encounter within the major areas of computing. The course is taught at an introductory level and includes topics such as: history of computers, computer architecture, operating systems, web design and development, programming, database, software engineering, networking, and more. Cross-listed with NET 1030 and WEB 1030.

## **CS 1400 - Fundamentals of Programming**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

This course covers basic operating system navigation and components of the program development process. The majority of the course covers basic problem solving and program design of a software application using a selected language. Topics presented and discussed depending on selected language include: thinking logically to solve problems, working with input/output devices, compilation and library use, structured programming and modularity concepts, conditional and

iterative structures including recursion, object oriented design, data types and structures, and pointers. Prerequisite/Co-requisite: CS 1030 or NET 1300.

### **CS 1410 - Object-Oriented Programming**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

An introduction to the C++ language. Topics will include data types, control structures, functions, pointers, arrays, I/O streams, classes, objects, encapsulation, overloading, inheritance and use of these concepts in problem solving.

Prerequisite: CS 1400 or CS 2250 and ENGL 1010 or ENGL 2010.

### **CS 2130 - Computational Structures**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem]**

**Summer [Full Sem, Online]**

Advanced principles of discrete computational models and algorithm analysis. Topics include: the design of efficient algorithms, order statistics, set manipulation problems, Turing machines, graph algorithms, matrix operations, integer and polynomial arithmetic, combinatorics, and pattern matching algorithms. Emphasis will be on the application of abstract models in a discrete software computational context. Prerequisite: CS 1400.

### **CS 2140 - Computer Systems Administration**

**Credits: (4)**

**Typically taught:**

**not currently offered**

An introduction to managing computer operating systems. Covers installation of the operating system, network, and application software. The course will cover the UNIX operating system. Topics include working with disk drives, allocation of resources, security, administering user accounts, monitoring system performance, tuning concepts, remote mounting of file systems, and setting up systems on networks. Prerequisite: CS 1400.

### **CS 2250 - Structured Computing in a Selected Language**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to structured problem solving using objects, data enumeration and encapsulation in a selected language. The language for a particular instance of this course will be based upon demand. Prerequisite: Basic skills in fundamental Algebra.

### **CS 2335 - Introduction to User Experience Design for Web & Mobile**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to introduce students to the elements of user experience design for the web and mobile. The

following topics will be covered: history of user experience, user centric design, agile development, user interface best practices for web and mobile applications, and analytics. Using current technologies and tools, students will create a basic web or mobile application.

### **CS 2350 - Client Side Web Development**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

This course provides an introduction to client-side programming and Web page development. Subjects covered include responsive Web page design and dynamic Web page development. The course will explore various technologies such as HTML5, CSS3, and Javascript with an introduction to JQuery and JQuery Mobile. Cross-listed with WEB 2350.

Prerequisite: CS 1400.

### **CS 2400 - Project Management**

**Credits: (3)**

Strategies and techniques for managing a project from inception to completion to meet all schedule, cost, and technical objectives. Knowledge and skills learned in this course prepare students to perform successfully the role of a project manager in any construction, engineering, health, information technology, business, or research and development project, although emphasis will be on project management applied to Software Engineering. Topics include organizational structures, project planning and evaluation, cost estimating, quantitative methods in schedule and cost management, project information systems, communication skills, and conflict resolution.

### **CS 2420 - Introduction to Data Structures and Algorithms**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

General principles of common data structures and design of efficient algorithms. Topics include: arrays, linked-lists, stacks, queues, trees, graphs, tables, storage and retrieval structures, searching, sorting, hashing, and algorithmic analysis. Emphasis will be on abstraction, efficiency, re-usable code, and object-oriented implementation. Prerequisite: CS 1410 or CS 2250. Prerequisite/Co-requisite: MATH 1080 or MATH 1050 and MATH 1060.

### **CS 2450 - Software Engineering I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem, Online]**

**Summer [Online]**

An Object Oriented Analysis and Design course which provides practical guidance on the construction of object-oriented systems. Its specific goals are: to provide a sound understanding of the fundamental concepts of the Software and Project Development Life-Cycle for the object model; to facilitate a mastery of the notion and process of object oriented analysis and design, and to teach quality design and development style through applications of object-oriented project development within a variety of problem domains. In depth coverage of UML and current Software Engineering models. Prerequisite: CS 1410.

## **CS 2550 - Introduction to Database Design and SQL**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem, Online]**

**Summer [Online]**

This course is an introduction to databases, specifically focusing on the relational database model, database design and modeling and the structured query language (SQL). Students will become proficient at formulating data query requests using SQL and will also gain experience in database normalization and entity-relationship modeling. Prerequisite: CS 1030 or NET 1300.

## **CS 2630 - Client Side Frameworks**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to current technologies of modern responsive web design techniques, combining CSS3 and Bootstrap with the popular Angular.js, jQuery and jQuery Mobile utility frameworks, to create rich web sites that adapt to a wide range of client devices. Cross listed with WEB 2630. Prerequisite: CS 2350.

## **CS 2705 - Network Fundamentals and Design**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

A comprehensive examination of the hardware and software components of a network and the practical techniques for designing and implementing computer systems in a network. Topics will include the purpose and use of various LAN, MAN, WAN configurations (Ethernet, rings HDLC, SMDS, ATM, Frame Relay, ISDN, xDSL, TCP/IP UDP/IP, x.25, PPP, Sonet and new protocols. Media type and structures (repeaters, bridges, switches, hubs, routers with routing algorithms, and gateways), signaling/data encoding, multiplexing, error detection/correction and flow control, packet formats, network classes, and subnetting. Prerequisite: CS 1030 and CS 1400.

## **CS 2780 - Windows Application Programming**

**Credits: (4)**

**Typically taught:**

**not currently offered**

This course provides participants with a working knowledge of the Windows Operating System. The students will develop applications to run under Windows, using the C/C++ languages. Concepts of Memory Management, DLLs, Resources, and Child Window development will be emphasized. The course also introduces the student to the use of OLE controls and MFC architecture. Prerequisite: CS 1410 and basic algebra skills.

## **CS 2800 - Individual Projects & Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this course is to permit Computer Science majors to develop an individual project, program, system, or research paper, with coordination and approval of a faculty mentor. The final grade and amount of credit awarded will be determined by the department, depending on the complexity of the upper division work performed. Prerequisite: CS 1410. May be repeated 3 times up to 6 credits. Note: Only 4 credit hours of either CS 2800 or CS 2890 can apply to a CS degree as an elective course, and only a maximum of 6 hours of both CS 2800 and CS 2890 may be taken to satisfy missing credits or to achieve full time academic status.

### **CS 2810 - Computer Architecture/Organization**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

(Formerly 2650). A fundamental course designed to explore the specific physical and functional characteristics of computer systems. Topics will include the architecture of the PC including BIOS, interrupts, addressing, memory management, types of disk drives (such as SCSI and EIDE), types of buses, video cards, modems, network cards, hardware compatibility issues, number representations, and/or gates and basic digital circuit concepts. The course also introduces assembly language skills in popular 16 and 32 bit microprocessors. Prerequisite: CS 1410 or CS 1400 and NET 3200.

### **CS 2890 - Cooperative Work Experience**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this course is to permit Computer Science majors who are currently working in a computer related job or internship to receive academic credit for their work, with coordination and approval of a faculty mentor and their supervisor. The amount of upper division credit awarded will be determined by the department, depending on the nature and quantity of work performed. Prerequisite: CS 1410. May be repeated 3 times up to 6 credits. Note: Only 4 credit hours of either CS 2800 or CS 2890 can apply to a CS degree as an elective course, and only a maximum of 6 hours of both CS 2800 and CS 2890 may be taken to satisfy missing credits or to achieve full time academic status.

### **CS 2899 - Associate Degree Assessment**

**Credits: (0)**

This course is to serve as an assessment tool whereby all AAS degree seeking students in the Department of Computer Science demonstrate core knowledge acquired from course studies in the discipline as specified in the AAS degree program.

### **CS 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Summer [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credits.

## **CS 3030 - Scripting Languages**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course addresses the design of scripting languages and their applications. Scripting languages can be used to manipulate text and data using subtle and complex coding to automate many tasks. Students will learn to write simple scripts to automate system administration tasks using appropriate languages. This course explores the nature of scripting, the role of scripting languages, introduces some of the popular scripting languages and their applications, and provides skills in scripting language design. Prerequisite: CS 1400 and CS 2705 or CS 1400 and NET 3200.

## **CS 3040 - Windows/Unix/Linux Infrastructure and Administration**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

This is the second course for understanding Windows operating systems and the first in the Unix/Linux operating system. It includes administration in a client/server directory services environment. Taught in a networking setting, it builds upon complex issues learned in previous courses. Provides the knowledge and skills necessary to install, configure, network and administer both operating systems. Prerequisite: CS 2705.

## **CS 3050 - Enterprise Computing**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course provides an integrated view of using enterprise computing systems. An overview on enterprise hardware concepts, enterprise operating systems concepts, and interactive facilities is covered. Batch applications will be developed, edited, compiled, linked, executed and debugged in enterprise operating systems environments. An introduction to emerging technologies in enterprise computing will be presented. Access to the latest enterprise systems, hands-on exercises, and online support materials are important components of this course. Prerequisite: CS 2420 and CS 2810.

## **CS 3100 - Operating Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

An overview of computer operating systems concepts, system software components with emphasis on installation, management, monitor/supervisor and I/O management, control commands, network installation, and device drivers. The operating systems studied will be Windows or UNIX. Prerequisite: CS 2420 and CS 2810.

## **CS 3210 - UNIX System Programming and Internals**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course provides hands-on experience with writing programs using UNIX system calls and inter-process

Communication mechanisms, from simple file I/O and I/O management subsystems to network client and server programs. The internal design and operation of the UNIX operating systems are studied. A detailed examination of the UNIX SVR4 source code will be included in the course. Prerequisite: CS 2420.

### **CS 3230 - Object Oriented User Interface Development with Java**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to the design and coding of applications using threads. Topics will include the use of threads in the design of operating systems, device drivers, utility programs and general applications. Language used in the course will be Java. Applications will include multimedia, Web Servers, search engines, security issues, and the use of the Java language in the development of applets for home pages. Prerequisite: CS 2420.

### **CS 3250 - Advanced Object Oriented Programming**

**Credits: (4)**

Develop and expand abilities in solving lengthy, advanced problems, multiple parallel tasks, generic packages, and other object-oriented techniques using selected languages. Prerequisite: CS 2420.

### **CS 3260 - Mobile Development for the iPhone**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Introduction to developing applications for mobile iOS devices (iPhone, iPod Touch and iPad) using the iPhone SDK, in conjunction with the Xcode/Cocoa development environment. Students will learn the basics of the Objective-C programming language and use it to develop applications for the iPhone family of devices. Students will also gain experience in working in a team environment. Prerequisite: CS 1410, CS 2350 and CS 2550.

### **CS 3270 - Mobile Development for Android**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Online]**

Introduction to developing applications for Android mobile devices. Students will use the Eclipse IDE in conjunction with the Android SDK. Students will gain advanced experience in Java and XML as they develop mobile applications both individually and as members of a development team. Prerequisite: CS 2350, CS 2550 and CS 3230.

### **CS 3280 - Object Oriented Windows Application Development**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is designed to teach students how to write Windows programs in C# using the .NET environment. The student will learn how to develop programs based on Microsoft Windows Forms and the .NET Framework. They will also be introduced to APIs and MFC/AFX styles of Windows programming and to become familiar with various data sharing methods and .NET services. Prerequisite: CS 2420.

## **CS 3540 - Database Administration**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course describes the role of the Database Administrator in managing an organization's most valuable asset - its data. Topics covered include DBMS architecture, database layout, database development, data fragmentation, rollback segments, database tuning, database security, backup and recovery, database networking, and distributed databases. Special emphasis is given to working with current database management systems such as Oracle, SQL Server and DB2. Prerequisite: CS 2550.

## **CS 3550 - Advanced Database Programming**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is designed to teach students to design, implement, and maintain a distributed database application. Applications development using database programming techniques emphasizing database structures, such as stored procedures, user defined functions, cursors, triggers, and distributed queries will be covered. Other topics will include: advanced transaction processing as well as distributed database problems and solutions using enhanced SQL and XML. Prerequisite: CS 2550.

## **CS 3580 - Data Science Algorithms**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course introduces students to the data management, storage and manipulation tools common in data science and has students apply those tools to real scenarios. Topics include, but are not limited to, the following: data reduction, scalable algorithms, modern distributed solutions, data visualization, applied statistical models, prediction algorithms, and forecasting. Prerequisite: MATH 1040 or QUAN 2600.

## **CS 3610 - Introduction to Game Industry**

**Credits: (4)**

**Typically taught:**

**Summer [Full Sem]**

This course is an introduction to the game industry and the skills and best practices needed in order to become a game developer. The course will evaluate different gaming hardware, genre, skills, tools, and roles. Students will also understand the elements in creating a game including the game design document, story line, vision, virtual worlds, playfields, and the mathematics and physics that are involved with game development. Prerequisite: CS 1400.

## **CS 3620 - Server-Side Web Architecture**

**Credits: (4)**

An introduction to server-side Web development using the most current Web server technologies. General Web development principles such as usability, reliability, maintainability and scalability will be applied to current Web development environments such as ASP.NET, PHP, Python, Ruby and Java. Students will gain real-world experience in creating Websites for multiple Web platforms. Prerequisite: CS 2350 and CS 2550.

## **CS 3630 - Rich Internet Application Development**

### **Credits: (4)**

An introduction to developing and deploying rich Internet applications (RIAs) using current technologies. Students will develop engaging websites by incorporating RIAs in the web application development process. Prerequisite: CS 2350 and CS 2550.

## **CS 3645 - Advanced User Interface Design**

### **Credits: (3)**

#### **Typically taught:**

**Spring [Full Sem]**

Students will learn the elements of user interface design as it applies to front-end web development and software engineering. Students will identify best practices in user interface design. The following topics will be covered: wire-framing, color palettes, typography, information architecture, contrast, uniformity, and responsive design techniques. Using current technologies and tools, students will wireframe, design, and program effective interfaces. Prerequisite: WEB 2500 or CS 2335, WEB 1400 or CS 1400, or permission of instructor.

## **CS 3650 - Human-Computer Interaction**

### **Credits: (4)**

#### **Typically taught:**

**Fall [Full Sem, Full Sem Online]**

This course introduces the skills and concepts of Human-Computer Interaction (HCI) that enable students to design systems that effectively meet human needs. A concrete illustration of the practice of HCI, this course covers usability, user experience, and modern diverse interfaces. This course includes both theoretical and practical best practices. Cross-listed with WEB 3650. Prerequisite: CS 2420, CS 2450 or WEB 3500.

## **CS 3705 - Protocol Analysis**

### **Credits: (4)**

#### **Typically taught:**

**Fall [Full Sem]**

This course provides an in depth look at the fundamentals of what protocols do and how they work, how addresses and routing are used to move data through the network, and how information is exchanged over the Internet. In depth analysis of network traffic packets will include normal traffic as well as protocol attack patterns. Topics include: DNS, Apache, email, Samba, PPP, DHCP, TCP, IP, and UDP troubleshooting, and security. Prerequisite: CS 2705 or NET 2435.

## **CS 3720 - Network Architectures and Protocols**

### **Credits: (4)**

#### **Typically taught:**

**not currently offered**

A practical applications course designed to teach the basic concepts associated with local and wide area networks and protocols. The course will concentrate on the TCP/IP and other protocols in the UNIX and Windows NT environments. Covers TCP/IP extensively, NFS, Sockets, RPC and TLI interfaces. The course also covers the use of Domain Name Servers, remote system calls, ports, services, configuration, IP addressing, and UNIX and Windows NT monitoring commands. Prerequisite: CS 3705.

## **CS 3730 - Client/Server Network Programming**

**Credits: (4)**

**Typically taught:**

**not currently offered**

Covers client/server architecture and application development using TCP/IP and other protocols. The course covers client/server operations on a single machine and across an Ethernet network to multiple machines. The course will also cover distributed processing concepts and applications. Applications include the use of STREAMS, Sockets, TLI, network listener facility, drivers, RPC, and ONC. The course will concentrate mainly on UNIX but will cover some concepts and applications using Windows NT. Prerequisite: CS 2705 and CS 3210.

## **CS 3750 - Software Engineering II**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

(Community Engaged Learning Designation) This course emphasizes teamwork in small groups on a substantial software engineering project that will be performed for a real customer in the community. It is the intent of the course to provide a capstone experience that integrates the material contained in the CS curriculum through work on a software project that applies this material. Projects are chosen so as to provide an interdisciplinary service learning component with project proposals being solicited from the community at large. Projects that integrate students and faculty from other disciplines are also encouraged. Lectures will be directed towards the software development lifecycle, requirements gathering and design documentation, as well as software project management. Each team member will contribute to all phases of the project as well as the development of a project prototype. Prerequisite: CS 2350, CS 2450, CS 2899, CS 3550, CS 3230 or CS 3280, and ENGL 3100 or ENGL 2250 or PHIL 1250 or PS 3250.

## **CS 3805 - Computer and Network Security**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to provide students with a solid foundation in network security including a treatment of security issues related to computers and computer networking. The primary emphasis is on developing security policies, security auditing, security models and laws related to security. Prerequisite: CS 2705 and CS 2420.

## **CS 3830 - Writing Secure Code**

**Credits: (4)**

This course focuses on how to develop software systems that are robust and can withstand repeated attacks from malicious intruders. The course coverage includes the need for secure systems, basic security principles and strategies, designing secure applications, secure coding techniques, dangerous APIs, data input issues, network security problems, testing secure applications, security code reviews, secure software installation, and writing security documentation. Prerequisite: CS 2420.

## **CS 3840 - Computer Forensics for Security Assurance**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course is a foundational course in file system analysis, digital forensics and computer media analysis. A combination of lectures and labs will give students a strong understanding of low-level file system knowledge to prepare them for involvement in digital forensic analysis, data recovery and other related tasks. Students will examine widely used file systems such as Windows NTFS and FAT32, UFS, EXT2 and UFS2. Students will also become familiar with software tools used in computer forensic work. Prerequisite: CS 2420.

### **CS 4110 - Concepts of Formal Languages and Algorithms for Computing**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Concepts of formal language definition, automata theory, Turing theory, and solvability, with an introduction of algorithms and computational methods used in advanced computer science courses. Prerequisite: CS 2420 and either MATH 1630 or CS 2130.

### **CS 4230 - Java Application Development**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is a continuation of CS 3230 and examines the development of Java applications intended for an enterprise environment. The course is programming intensive and concentrates on designing and implementing multi-tier and Web applications based on the Java Enterprise Edition (Java EE) specification. Topics include JavaBeans, Java Database Connectivity, client/server interactions, servlets, session tracking, JavaServer Pages, JavaServer Faces, Struts, the Model-View-Controller approach, remote method invocation, Enterprise JavaBeans, and application servers. Lab exercises will emphasize how Java Enterprise programming supports the operation of robust, distributed object architectures. Prerequisite: CS 3230, CS 3750.

### **CS 4250 - Design Patterns**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to fundamental principles of software development using design patterns, including structural design patterns, behavioral design patterns, SOLID principles, and agile approach; Understand and program the basic concepts and techniques for building software in an adaptive way, including dependencies and layering, interfaces, unit testing, and refactoring. Prerequisite: CS 3230 or CS 3280.

### **CS 4280 - Computer Graphics**

**Credits: (4)**

This course introduces and investigates the mathematical and programming basis for generating pictures and images using a computer. Fields impacted by visual rendering technologies include filmmaking, publishing, banking, engineering, and education. Students are introduced to the theory and practice of computer graphics, with an emphasis on designing and developing working applications using currently available graphics libraries. The course focuses on strategies for rendering geometric data (points, lines, and polygons), and the analysis of the processing stages and components of the graphics pipeline, including transformations, viewing volumes, and projections. Programming and mathematical techniques related to modeling, viewing, coordinate frames, and perspective will be primary topics for discussion and code development. The course covers the key processing steps and structures needed to appropriately

map 3D geometric primitives to 2D screen positions while maintaining a realistic look, which involves hidden surface removal, proper lighting, and simulated material properties. Prerequisite: CS 2420.

### **CS 4350 - Advanced Internet Programming**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Capstone client/server web programming group project implemented using an advanced web framework (such as PHP (Laravel, Zend, Cake PHP) or Django, or Ruby on Rails). Includes implementation and concepts of an MVC web architecture, Web UI design and creation, data modeling and retrieval, input validation, security, and unit testing. Prerequisite: WEB 3620 or CS 3620.

### **CS 4450 - Advanced Software Engineering Methods**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

**(Formerly 4750)** This course teaches the architectural and operational implications of open source development and explores its implementation using selected software development methodologies. The course will also focus on test-driven software development and re-engineering practices in a team based environment. Prerequisite: CS 3750.

### **CS 4500 - Artificial Intelligence and Neural Networks**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course covers basic artificial intelligence principles and introduces students to AI languages. Concepts of programming parallel architecture machines are introduced and developed. The neural network design of parallel computing is studied, along with its implications in Artificial Intelligence software development. Prerequisite: CS 2420 and either MATH 1630 or CS 2130.

### **CS 4640 - Foundations of Game Development**

**Credits: (4)**

This course introduces students to 2D game development using a programming language, scripting, and a gaming engine. The work includes team work project, graphical programming, GUI, and all other aspects of creating a game program associated with a game design document. Prerequisite: CS 1010. Prerequisite/Co-requisite: Pre or Co-requisite: CS 4280.

### **CS 4650 - Advanced Game Development**

**Credits: (4)**

Senior project Game Development II course focuses on 3D game programming in a team work project environment using a game engine. At conclusion student should be able to add the resulting program into their game portfolio. Prerequisite: CS 4640, CS 3750.

### **CS 4730 - Applied Cryptography**

**Credits: (4)**

This course provides an introduction to the principles of number theory and how they are applied to cryptographic algorithms. Different topics that will be examined are: several classic ciphers, modern cryptographic methods, symmetric encryption, public key cryptography, hash functions, key management, digital signatures, certificates, electronic mail

security, steganography, and recent developments affecting security and privacy on the Internet. The focus will be on how cryptography and their application can maintain privacy and security in computer networks. Prerequisite: CS 2420 and either MATH 1630 or CS 2130.

### **CS 4790 - .NET Web Application Development**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to teach sound concepts in ASP.NET Web Application Development using MVC and/or N-Tier methodologies. Students will develop large-scale web applications in a team environment using Agile, RAD and Test-Driven Development techniques. Representative skills mastered in this course will include: ASP.NET and the .NET Framework, C#, MVC, ADO.NET and Entity Frameworks, RAZOR, HTML5, Javascript, jQuery, Agile, Scrum and Design Patterns. Prerequisite: CS 3750.

### **CS 4800 - Individual Projects and Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this course is to permit Computer Science majors to develop an individual project, program, system, or research paper, with coordination and approval of a faculty mentor. The final grade and amount of credit awarded will be determined by the department, depending on the complexity of the upper division work performed. Prerequisite: CS 2420. May be repeated 3 times up to 4 credit hours. Note: Only 4 credit hours of CS 4800 or CS 4850 or CS 4890 can apply to a CS degree as an elective course, and only a maximum of 6 hours of CS 4800, CS 4850, and CS 4890 may be taken to satisfy missing credits or to achieve full time academic status.

### **CS 4820 - Compiler Design**

**Credits: (4)**

A study of compilers, grammars, finite-state and push down automata, scanning, parsing, error handling, semantic analysis and code generation. Prerequisite: CS 2420, CS 4110.

### **CS 4830 - Advanced Topics in Computer Science**

**Credits: (1-4)**

**Variable Title**

**Typically taught:**

**Spring [Full Sem]**

Advanced topics which are demanded by industry, are currently popular in this rapidly changing field, or which meet special needs of students in Computer Science will be offered. Individualized material will be taught on a one time basis as needed. Time and credit to be arranged. Prerequisite: Consent of instructor. May be repeated 2 times up to 8 credit hours.

## **CS 4850 - Faculty Directed Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this course is to permit Computer Science majors to work closely and consistently with a faculty mentor on specific research related to current, experimental topics in Computer Science. The final grade and amount of credit awarded will be determined by the faculty mentor, depending on the complexity of the advanced, upper division work performed. Prerequisite: CS 2420. May be repeated 3 times up to 4 credit hours. Note: Only 4 credit hours of CS 4800 or CS 4850 or CS 4890 can apply to a CS degree as an elective course, and only a maximum of 6 hours of CS 4800, CS 4850 and CS 4890 may be taken to satisfy missing credits or to achieve full time academic status.

## **CS 4890 - Cooperative Work Experience**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this course is to permit Computer Science majors who are currently working in a computer related job or internship to receive academic credit for their work, with coordination and approval of a faculty mentor and their supervisor. The amount of upper division credit awarded will be determined by the department, depending on the nature and quantity of work performed. Prerequisite: CS 2420. May be repeated 3 times up to 4 credit hours. Note: Only 4 credit hours of CS 4800 or CS 4850 or CS 4890 can apply to a CS degree as an elective course, and only a maximum of 6 hours of CS 4800, CS 4850, and CS 4890 may be taken to satisfy missing credits or to achieve full time academic status

## **CS 4899 - Bachelor's Degree Assessment**

**Credits: (0)**

This course is to serve as an assessment tool whereby all BS/BA degree seeking students in the Computer Science Department demonstrate their learned knowledge in at least three areas of computer science. At present, this knowledge will be demonstrated through the use of Chi Tester exams administered through the Campus Testing Center. The course is taken during the last term prior to receiving the BS/BA degree. Prerequisite/Co-requisite: Prereq/Coreq: Successful completion of requirements for the Bachelor's Degree.

## **CS 4920 - Short Courses, Workshops, Institutes and Special Projects**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 3 times up to 4 credit hours.

## **CS 5100 - Distributed Operating Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Distributed systems or distributed computing deals with the issues encountered while running programs across a computer network. This course will cover key topics including: models of distributed systems, timing, synchronization, coordination and agreement, fault tolerance, naming, security, and middleware. Students will learn both the theoretical background of distributed systems as well as work on hands-on projects developing distributed systems applications. Prerequisite: CS 3100.

## **CS 5420 - Advanced Algorithms**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to fundamental principles of advanced algorithm design, including asymptotic analysis; divide-and-conquer algorithms and recurrences; greedy algorithms; practical data structures (heaps, hash tables, search trees, graphs); dynamic programming; graph algorithms; and randomized algorithms. Prerequisite: CS 2420.

## **CS 5500 - Artificial Intelligence and Neural Networks**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course covers basic artificial intelligence principles and introduces students to AI languages. Concepts of programming parallel architecture machines are introduced and developed. The neural network design of parallel computing is studied, along with its implications in Artificial Intelligence software development. Prerequisite: CS 2420 and CS 2130.

## **CS 5600 - Machine Learning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to fundamental principles and practical techniques of machine learning and its applications, including parametric and non-parametric algorithms, support vector machines, kernels, neural networks, clustering algorithms, dimensionality reduction, recommender systems, and deep learning. Prerequisite: CS 2420.

## **CS 5610 - Computer Architecture**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Investigation of high-performance computer processing architectures, including concurrent, multicore platforms; memory hierarchy; static and dynamic scheduling; instruction-level parallelism, including branch prediction; graphics processing units; cache performance and analysis. Prerequisite: CS 2810.

## **CS 5740 - Computer Systems Security**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Computer Systems Security studies the design and implementation of secure computer systems. Topics include threat models, operating system security, TCP/IP security issues, information flow control, language security, hardware security, security in web applications, and detecting/monitoring unauthorized activity. Assignments include readings from current articles, labs that involve implementing and compromising a secure computer system, and a team final project. Prerequisite: CS 2420 and CS 3100.

## **CS 5820 - Compiler Design**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

A study of compilers, grammars, finite-state and push down automata, scanning, parsing, error handling, semantic analysis and code generation. Prerequisite: CS 2420 and CS 2130.

## **CS 5840 - Formal System Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Methods for developing high-quality hardware/software systems that are delivered on time, within budget, and according to requirements. Techniques for specifying programs and reasoning about them, including formal logical proofs, correct code synthesis, model checking, type theory specifications, and properly evaluating concurrent programs. Prerequisite: CS 2420.

## **CS 5850 - Parallel Programming and Architecture**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

In parallel programming you will learn how to utilize multiple CPU's/Cores/Nodes in parallel to increase the performance of your applications. Different architectures will be discussed along with the advantages and disadvantages of each. This course will cover key topics parallel programming including: memory models, parallel programming architectures, Flynn's Taxonomy, synchronization, and performance analysis and tuning. In addition to learning the theoretical background of parallel programming, you will work on hands-on projects using multiple parallel programming languages and libraries including (CUDA, openMP, MPI, open CL, and python). Prerequisite: CS 3100.

## **CS 6010 - Design Project**

**Credits: (2-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Students are required to complete a substantial computer science project. Students must demonstrate proficiency in research, design, analysis, project planning, implementation, testing, presentation and documentation. Students receive T (temporary) grades until their final design review, after which these grades are changed retroactively. Students must be enrolled in CS 6010 at the time of their final design review. May be taken 3 times and up to 6 credits.

## **CS 6011 - Thesis Research**

**Credits: (2-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Students are required to complete original computer science research resulting in a thesis. Students must demonstrate proficiency in research, design, analysis, project planning, implementation, testing, presentation and

documentation. Students receive T (temporary) grades until their final design review, after which these grades are changed retroactively. Students must be enrolled in CS 6011 at the time of their final thesis defense. May be taken 3 times and up to 6 credits.

### **CS 6100 - Distributed Operating Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Distributed systems or distributed computing deals with the issues encountered while running programs across a computer network. This course will cover key topics including: models of distributed systems, timing, synchronization, coordination and agreement, fault tolerance, naming, security, and middleware. Students will learn both the theoretical background of distributed systems as well as work on hands-on projects developing distributed systems applications. Recommended Prerequisite: CS 3100.

### **CS 6420 - Advanced Algorithms**

**Credits: (3)**

Introduction to fundamental principles of advanced algorithm design, including asymptotic analysis; divide-and-conquer algorithms and recurrences; greedy algorithms; practical data structures (heaps, hash tables, search trees, graphs); dynamic programming; graph algorithms; and randomized algorithms. Prerequisite: CS 2420.

### **CS 6500 - Artificial Intelligence and Neural Networks**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course covers basic artificial intelligence principles and introduces students to AI languages. Concepts of programming parallel architecture machines are introduced and developed. The neural network design of parallel computing is studied, along with its implications in Artificial Intelligence software development. Prerequisite: CS 2420, Recommended Prerequisite: CS 2130.

### **CS 6600 - Machine Learning**

**Credits: (3)**

Introduction to fundamental principles and practical techniques of machine learning and its applications, including parametric and non-parametric algorithms, support vector machines, kernels, neural networks, clustering algorithms, dimensionality reduction, recommender systems, and deep learning. Prerequisite: CS 2420.

### **CS 6610 - Computer Architecture**

**Credits: (3)**

Investigation of high-performance computer processing architectures, including concurrent, multicore platforms; memory hierarchy; static and dynamic scheduling; instruction-level parallelism, including branch prediction; graphics processing units; cache performance and analysis. Prerequisite: CS 2810.

### **CS 6740 - Computer Systems Security**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Computer Systems Security studies the design and implementation of secure computer systems. Topics include threat models, operating system security, TCP/IP security issues, information flow control, language security, hardware

security, security in web applications, and detecting/monitoring unauthorized activity. Assignments include readings from current articles, labs that involve implementing and compromising a secure computer system, and a team final project. Prerequisite: CS 2420. Recommended Prerequisite: CS 3100.

### **CS 6820 - Compiler Design**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

A study of compilers, grammars, finite-state and push down automata, scanning, parsing, error handling, semantic analysis and code generation. Prerequisite: CS 2420. Recommended Prerequisite: CS 4110.

### **CS 6830 - Special Topics in Computer Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course explores new or otherwise relevant computer science topics that are not covered in a regularly offered course. Each offering will have a specific title and authorized credit that will appear on the student's transcript. May be repeated for credit under different titles. Lecture or Lecture/Lab combination. May be taken twice up to 6 credits. Prerequisite: Instructor permission.

### **CS 6840 - Formal System Design**

**Credits: (3)**

Methods for developing high-quality hardware/software systems that are delivered on time, within budget, and according to requirements. Techniques for specifying programs and reasoning about them, including formal logical proofs, correct code synthesis, model checking, type theory specifications, and properly evaluating concurrent programs. Prerequisite: CS 2420.

### **CS 6850 - Parallel Programming and Architecture**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

In parallel programming you will learn how to utilize multiple CPU's/Cores/Nodes in parallel to increase the performance of your applications. Different architectures will be discussed along with the advantages and disadvantages of each. This course will cover key topics parallel programming including: memory models, parallel programming architectures, Flynn's Taxonomy, synchronization, and performance analysis and tuning. In addition to learning the theoretical background of parallel programming, you will work on hands-on projects using multiple parallel programming languages and libraries including (CUDA, openMP, MPI, open CL, and python). Recommended Prerequisite: CS 3100.

### **DANC 1010 CA/DV - Introduction to Dance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

An introduction to dance providing a knowledge base from which to experience dance from a variety of viewpoints: historically, culturally, aesthetically, critically, and creatively. This course takes a close-up look at the rules, messages, and meanings embodied in dance around the world. This is a writing intensive course. Students are expected to attend dance concerts and cultural dance experiences outside regularly scheduled class time. Open to all students.

### **DANC 1100 - Ballet I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to the techniques of the classical ballet including alignment, positions, port de bras, and allegro combinations. May be repeated for a maximum of 4 credit hours. Open to all students. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 1200 - Modern I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to the movement techniques of modern dance. May be repeated for a maximum of 4 credit hours. Open to all students. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 1310 - Music for Dance**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] odd years**

Study of the relationship between sound and movement, accompaniment and dance. Focus extends to creative and working relationship(s) between accompaniment/composer and teacher/choreographer with emphasis on practical applications of methods and understandings.

### **DANC 1450 - Special Topic Dance Form**

**Credits: (1)**

**variable topic**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to provide enrichment opportunities for those who undertake dance as a field of study or as recreational activity. It allows for the study of changing series of dance forms, including, but not limited to African, Flamenco, Middle Eastern, Clogging, Ballroom, Renaissance, etc. May be repeated for 2 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 1500 - Jazz I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to the style, technique, and rhythmic structures of jazz dance with emphasis on increasing movement capabilities and personal expression. May be repeated for a maximum of 4 credit hours. Open to all students. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 1520 - Folk & Ethnic Dance**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Folk and ethnic dances of Europe, Near and Far East, Africa, and the Americas as they relate to concert dance. Open to all students. May be repeated for up to 4 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 1580 - Rhythm Tap**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem] even years**

Special training in tap dance skills and techniques. May be repeated 2 times up to 3 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 2250 - Alignment and Conditioning for Dance/Pilates**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem] even years**

Strength and alignment for dancers, using Pilates mat exercises. The class addresses areas of strength essential for dancers, focuses on breathing techniques integral to the exercises, and uses the exercises as a means to better understand and improve alignment. The course also addresses how strength and alignment facilitates more ease and efficiency in movement. To repeat the class a student must have the permission of the instructor. May be repeated twice for up to 3 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 2300 - Dance Kinesiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

This course provides a study of anatomy and dance kinesiology with a specific focus on anatomical analysis, conditioning principles and injury prevention, with special attention given to application of information to technique class, rehearsal, choreography and individual anomalies. The course prepares the student to understand basic kinesiological analysis and fundamental concepts of somatic inquiry. Prerequisite/Co-requisite: Pre/Co-requisite: NUTR 1020.

### **DANC 2410 - Improvisation**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Guided exploration in the elements of dance for the creative development of personal movement repertoire, spontaneous group interaction, and choreographic skills. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 2470 - Ballet II**

**Credits: (1.5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Technique course designed to increase skill in classical ballet. May be repeated 4 times for a maximum of 6 credit hours. Prerequisite: DANC 1100 (2 credit hours minimum), or DANC 2470 (1 credit hour minimum), or by audition. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 2490 - Modern II**

**Credits: (1.5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Refinement of beginning skills, emphasis on development of technical abilities and performance qualities. Prerequisite: DANC 1200 (2 credit hours minimum), or DANC 2490 (1.5 credit hour minimum), or by audition. May be repeated for a maximum of 6 credit hours.

### **DANC 2500 - Jazz II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Refinement of beginning skills, emphasis on development of technical abilities and performance qualities. May be repeated for a maximum of 4 credit hours. Prerequisite: DANC 1500 (2 credit hours minimum), or DANC 2480 (1 credit hour minimum), or by audition. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 2610 - Dance and Digital Technology**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] even years**

This course will provide students with an opportunity to explore the integration of dance and technology, specifically the use of the digital video medium and the use of the internet for creative and professional distribution. DANC 2610 will introduce students to dance-videography, video editing, dissemination of work through media such as the DVD format, YouTube, Vimeo and the creation/maintenance of on-line portfolios. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. In individual cases, this course might be considered as an elective in the Dance Major. May be repeated up to 4 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 2950 - Dance Festival Participation**

**Credits: (1)**

Students attend the American College Dance Festival Association's regional gathering to study a variety of dance forms with professionals from across the country. Students see the choreographies of peers and professionals. Students may be responsible for their own registration fees and transportation, lodging and meal costs. Prerequisite: Audition and permission. May be repeated for up to 4 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 3010 - Dance History I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Study of the history and philosophy of dance from lineage-based societies through the early decades of modern dance. Areas covered will include pre-Christian civilizations, the Middle Ages, the Renaissance and the Golden Age of Ballet. Prerequisite: DANC 1010.

### **DANC 3020 - Dance History II: 20th Century Art and Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Study of the history and philosophy of dance in art and education from the Age of Innovation in Ballet through the Contemporary Period of history. Areas of study will include ballet and modern dance today, black dance in America, vernacular forms and dance as public art. Prerequisite: DANC 1010.

### **DANC 3320 - Techniques and Materials for Teaching Modern Dance**

**Credits: (3)**

Methods, teaching techniques, accompaniment, and practical experience in teaching modern dance. This is the secondary teaching methods class. Prerequisite: DANC 2490.

### **DANC 3440 - Dance for Musical Theatre**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem] even years**

Dance skills and techniques taken from the repertoire of the modern musical theatre. Special emphasis on characterization and style as demonstrated by the works of the leading choreographers of this genre. Prerequisite: DANC 1200 and DANC 1500. May be repeated up to 4 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 3450 - Special Topic Dance Form**

**Credits: (1)**

**variable titles**

This course is designed to provide enrichment opportunities for those who undertake dance as a field of study or as recreational activity. It allows for the study of changing series of dance forms, including, but not limited to African, Flamenco, Middle Eastern, Clogging, Ballroom, Renaissance, etc. May be repeated up to 2 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 3470 - Ballet III**

**Credits: (1.5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Coordinating course designed to increase skill in classical ballet technique. Prerequisite: DANC 2470 (3 credit hours minimum), or DANC 3470 (1.5 credit hour minimum), or by audition. May be repeated for a maximum of 6 credit hours.

### **DANC 3490 - Modern III**

**Credits: (1.5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Exercises and activities to develop strength, flexibility, endurance, and technical dance skill. Prerequisite: DANC 2490 (3 credit hours minimum), or DANC 3490 (1.5 credit hour minimum), or by audition. May be repeated for a maximum of 6 credit hours.

### **DANC 3500 - Choreography I: Space & Time/Design in Dance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of the elements of time and space as they are artistically significant in themselves and in organized forms of meaning in dance. Considering time and space design in related fields of music and art included as relevant to choreographic design and communication in dance. Prerequisite: DANC 2410. May be repeated for up to 6 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 3510 - Choreography II: Process**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of and experience in various approaches to the choreographic process as related to artistic concepts and to the philosophy of art as espoused by various traditional and contemporary dance artists and as developed by the individual student. Prerequisite: DANC 3500. May be repeated for up to 6 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 3520 - Choreography Practicum**

**Credits: (2)**

Supervised experience choreographing a dance for public performance. Arranged through cooperative effort of student and supervisor. Prerequisite: DANC 3510 and approval of instructor. May be repeated 3 times for a maximum of 4 credit hours.

## **DANC 3525 - ArtsBridge**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

ArtsBridge is a course that provides undergraduate students with an internship and academic credit for designing and implementing a comprehensive, needs-based, integrated arts project with community organizations or area schools. The course will offer students a clear structure and process for navigating the complexities of community engagement. ArtsBridge students will work closely with a WSU faculty mentor, community/school stakeholder, peers, and the ArtsBridge program coordinator throughout the process culminating in the development of a arts integrated project. Prerequisite: Recommendation by education supervisor in fine arts content area faculty mentor. Content methodology course(s) completed or in progress. Following faculty recommendation, please contact the ArtsBridge coordinator for an interview.

## **DANC 3580 - Rhythm Tap**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem] even years**

Intermediate/Advanced training in tap dance skills and techniques. Prerequisite: Lower Division Tap Dance (DANC 1580) and/or instructor approval. May be repeated 2 times up to 3 credit hours, but use toward Major/Minor must be approved by program advisor.

## **DANC 3640 - Teaching Creative Dance in the Elementary School**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Techniques for teaching creative dance and basic dance forms. Suggested for Elementary Education majors.

## **DANC 3860 - Field Experience**

**Credits: (1-3)**

A course designed to provide opportunities for students to gain practical experience in the field by assisting in the activities of community agencies, schools, and Weber State. Prerequisite: DANC 3320 for those who plan to teach in a middle or secondary school or DANC 3640 for those who plan to teach in an elementary school. May be repeated twice, up to 3 credit hours, but use toward Major/Minor must be approved by program advisor.

## **DANC 3910 - Moving Company: Rehearsal & Development**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

The Moving Company is designed to give students the opportunity to learn about the various aspects of creating, rehearsing, and implementing performances off-campus and to reach the community with our dance program. The commitment is for both fall (rehearsal - 3910) and spring (performance - DANC 3911) semesters. This segment deals with preparation and rehearsal. May be repeated 3 times up to 8 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 3911 - Moving Company: Performance**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

The Moving Company is designed to give students the opportunity to learn about the various aspects of creating, rehearsing, and implementing performances off-campus and to reach the community with our dance program. The commitment is for both fall (rehearsal - DANC 3910) and spring (performance - 3911) semesters. This segment deals with implementation and performance. Prerequisite: DANC 3910. May be repeated 3 times up to 8 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 4250 - Alignment and Conditioning for Dance/Pilates**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] even years**

Strength and alignment for dancers, using Pilates mat exercises and Reformer. The class addresses areas of strength essential for dancers, focuses on breathing techniques integral to the exercises, and uses the exercises as a means to better understand and improve alignment. The course also addresses how strength and alignment facilitate ease and efficiency of movement. Co-Requisite: DANC 2250. May be repeated once up to 4 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 4610 - Dance and Digital Technology**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] even years**

This course will provide students with an opportunity to explore the integration of dance and technology, specifically the use of the digital video medium and the use of the internet for creative and professional distribution. DANC 4610 will introduce students to dance-videography, video editing, and dissemination of work through media such as the DVD format, You Tube, Vimeo and the creation/maintenance of on-line portfolios. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 4620 - Dance and Digital Technology Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This seminar will provide students with individual and collaborative study and research in the field of dance and the digital video medium. The course will cover artistic and technical forms, including, but not limited to capturing dance on the digital/video medium, choreographic processes through non-linear digital editing, audio/visual editing for dance, lighting, dance theory and criticism in the context of dance in the digital age. Prerequisite: DANC 2610. May be repeated once up to 2 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 4700 - Creative Synthesis in Dance**

**Credits: (2)**

Project oriented experience intended to coordinate student work. It will serve as guide in the synthesis of philosophy, experience, and understanding of dance as an art form and/or dance as education. This capstone course will include a portfolio and have an artistic or scholarly outcome. Prerequisite: for BA in Dance: DANC 2610, DANC 3520 and senior dance major standing. Prerequisite: for BA/BS in Dance Education: DANC 2610, DANC 3860 and senior dance major standing.

### **DANC 4800 - Individual Study**

**Credits: (1-4)**

Individual work or work in small groups by arrangements in special topics not included in the announced course offerings. Prerequisite: Approval of instructor. In individual cases, this course might be considered as an elective in the Dance Major. May be repeated 3 times up to 8 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 4801 - A&H Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **DANC 4890 - Cooperative Work Experience**

**Credits: (1-6)**

Individual work or work in small groups by arrangement; in special topics not included in the announced course offerings. Prerequisite: Approval of instructor. In individual cases, this course might be considered as an elective in the Dance Major. May be repeated 3 times up to 18 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 4910 - Rehearsal and Performance**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Preparation and rehearsal of dance composition to be presented in concert. Prerequisite: consent of instructor. May be repeated for an unlimited number of credit hours. May be repeated for credit, but use toward Major/Minor must be approved by program advisor.

### **DANC 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**(Offered as needed)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. In individual cases, this course might be considered as an elective in the Dance Major. May be repeated 3 times up to 16 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DANC 4950 - Dance Festival Participation**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Students attend the American College Dance Festival Association's regional gathering to study a variety of dance forms with professionals from across the country. Students see the choreographies of peers and professionals. Students may be

responsible for their own registration fees and transportation, lodging and meal costs. Prerequisite: Audition and permission. May be repeated 3 times up to 4 credit hours, but use toward Major/Minor must be approved by program advisor.

### **DENT 2201 - Concepts of Community Dental Health**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**

This course will present the basic concepts of planning and implementing community dental health programs. These principles include epidemiology, sociological concepts of health and illness, health behavior, public attitudes and principles of dental health education.

### **DENT 2205 - Head/Neck and Dental Anatomy**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**

Identification of major anatomical landmarks of the head and neck, their innervation, blood supply and function. Also includes instruction in the histology and embryology of head and neck development and tooth morphology.

### **DENT 2206 - Clinical Dental Hygiene/Radiology**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem]**

Clinical application of principles of DENT 2207 and DENT 2208. Must accompany DENT 2207 and DENT 2208. Students participate in three four-hour labs each week.

### **DENT 2207 - Dental Hygiene I**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Theory essential to performing clinical treatment, including, but not limited to armamentarium, client-operator positioning, aseptic technique, soft tissue exam, health history, principles of instrumentation and disease control therapies. Must accompany DENT 2206.

### **DENT 2208 - Radiology**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Preparatory skills for clinical dental radiology, including information on radiation safety and exposure techniques. Must accompany DENT 2206.

### **DENT 2211 - Oral Pathology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The study of manifestations and identification of disease processes in the oral cavity.

### **DENT 2215 - Periodontology**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

The study of basic periodontal structures and disease processes.

### **DENT 2216 - Clinical Dental Hygiene II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Clinical application of DENT 2217. Must accompany DENT 2217. Two four-hour clinic lab sessions each week.

Prerequisite: DENT 2206 and DENT 2207.

### **DENT 2217 - Dental Hygiene II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of DENT 2206. Didactic instruction for intermediate skills in dental hygiene treatment. Must accompany

DENT 2216. Prerequisite: DENT 2207.

### **DENT 2219 - Dental Materials**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Identification of and laboratory experiences with materials used in dentistry and dental hygiene.

### **DENT 2230 - Oral Health Research & Statistics**

**Credits: (2)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

This course is designed to provide the student with research design and statistics principles as they apply to oral health settings and issues. Prerequisite: WSU Quantitative Literacy requirement.

### **DENT 2235 - Dental Medicine I**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

The study of common medical conditions and their treatment. Emphasis is placed on oral manifestations of systemic disease and related pharmacology.

### **DENT 2250 - Professional Ethics**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Professional Ethics is designed to provide dental hygiene students with a foundation in the professional standards governing the dental hygiene profession and the development of ethical decision-making skills, in the context of diversity and respect for others. Throughout the course the student will be guided to explore issues of diversity, prejudices, and their responsibility to provide culturally sensitive care.

### **DENT 2800 - Individual Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

Special project in a student's area of interest. May be repeated twice for a maximum of 4 credit hours.

### **DENT 2830 - Directed Readings, Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

Limited to dental hygiene majors. A maximum of nine hours may be accumulated with this course.

### **DENT 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

The specific title and credit authorized will appear on the student transcript. May be repeated 5 times for a maximum of 6 credit hours.

### **DENT 3130 - Independent Study**

**Credits: (1-3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

Independent project in an area of interest; second year dental hygiene students only. Project approval by dental hygiene faculty. A maximum of nine hours may be accumulated with this course.

### **DENT 3301 - Community Dental Health Service Learning Lab**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This course leads the student through on-campus and off-campus field projects with selected community agencies.

### **DENT 3305 - Pain Control**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The study of local anesthesia with regard to pharmacology, administration techniques, methods of pain and apprehension control and nitrous oxide sedation. Includes laboratory experiences in the administration of local anesthesia and nitrous oxide sedation. Prerequisite: DENT 2235.

### **DENT 3336 - Clinical Dental Hygiene III**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Clinical application of DENT 3337. This course must accompany DENT 3337. Three four hour clinics each week. Prerequisite: DENT 2206 and DENT 2216.

### **DENT 3337 - Dental Hygiene III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Continuation of DENT 2207, DENT 2217. Emphasis on advanced instrumentation in the care of patients with periodontal disease. Must accompany DENT 3336. Prerequisite: DENT 2207 and DENT 2217.

### **DENT 3346 - Clinical Dental Hygiene IV**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Clinical lab which must accompany DENT 3347. Twelve hours of clinic each week. Prerequisite: DENT 2206, DENT 2216, DENT 3336.

### **DENT 3347 - Dental Hygiene IV**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of DENT 2207, DENT 2217, DENT 3337. Emphasis on expanded client care services and with client

populations with special treatment needs. Must accompany DENT 3346. Prerequisite: DENT 2207, DENT 2217, DENT 3337.

#### **DENT 4010 - Interdisciplinary Health Care Teams**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact and learn in the interdisciplinary environment of a health care setting. Cross-listed with HTHS 4010 and NRS 4010.

#### **DENT 4405 - Dental Hygiene Clinical Teaching Practice**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Supervised teaching in the Weber State Dental Hygiene program as an assistant to the supervising faculty. Prerequisite: Consent of the faculty member and acceptance into the BS/DH major program.

#### **DENT 4410 - Dental Hygiene Needs of the Geriatric Client**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An overview of dental health needs of elderly clients. Prerequisite: Consent of instructor and acceptance into the BS/DH major program.

#### **DENT 4530 - Principles and Application of Evidence - based Dental Hygiene Practice**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Emphasis is on the critical appraisal of scientific literature, the development of clinical problem statements and hypotheses and the formulation of a research proposal. Ethical issues inherent in the research process and the identification of appropriate hypothesis testing procedures will also be discussed. Prerequisite: Acceptance into the BS/DH program and completion of WSU Quantitative Literacy requirement.

#### **DENT 4780 - Baccalaureate Thesis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to give dental hygiene students an opportunity to complete a thesis project in partial fulfillment of

the requirements for the BS/DH major. Prerequisite: Acceptance into the BS/DH program, completion of the WSU Quantitative Literacy requirement.

#### **DENT 4800 - Individual Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Special project in a student's area of interest. May be repeated twice for a maximum of 3 credit hours.

#### **DENT 4810 - Summer Elective Clinic**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Summer intensive clinical course which allows the student to set personal achievement goals for clinical techniques and assists them through the process of skill development.

#### **DENT 4830 - Directed Readings, Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Limited to dental hygiene majors. A maximum of nine hours may be accumulated with this course.

#### **DENT 4850 - Study Abroad**

**Credits: (1-6)**

**Variable Title**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated 5 times with a maximum of 6 credit hours.

#### **DENT 4890 - Advanced Community or Clinical Work Experience**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

This course is designed to specifically meet the interests and career goals of the Dental Hygiene Degree-completion student or the student completing the Baccalaureate degree, Dental Hygiene major prior to initial licensure as a dental

hygienist. The student who is completing this course as part of their BS degree, initial entry into the profession, will participate in an advanced community or clinical work experiences under the direct supervision of program faculty. The baccalaureate degree completion student must be licensed to practice dental hygiene at the site in which the work experience will take place, have successfully completed an accredited dental hygiene program, or have a work experience site that does not have direct patient care as its community role. Prerequisite: Acceptance into the BS/DH Program and consent of the instructor.

### **DENT 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours.

### **DENT 4990 - Seminar**

**Credits: (1-2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Current concepts in dental hygiene for baccalaureate level dental hygiene students. May be repeated once for a maximum of 2 credit hours.

### **DET 1010 - Introduction to Engineering & Technical Design (Solidworks)**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

An introductory course to explore engineering and technical design solutions using critical thinking in Science, Technology, Engineering and Mathematics (STEM). Learning modules include; The Engineering Design Process & Professions, Sketching & Documentation, Design Measuring, Introduction to CAD & Geometric Constraints, Design Visualization, Orthographic Projection & Multi-View Drawings, Fasteners, Assembly Drawings, Dimensioning, Tolerancing, Final Team Design Projects, and Final Review & Assessment. Prerequisite: MATH 0970 or MATH 0990.

### **DET 1160 - Geometric Dimensioning & Tolerancing Using 3D CAD**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

The use of CAD to create industrial level production working drawings. Includes the latest ASME Y14.5 standards for

Geometric Dimensioning & Tolerancing. Topics of discussion will include: dimensions, fits, tolerances, surface finishes, symbols for welding, piping, machined elements/processes and sheet metal flat patterns. Prerequisite: DET 1010.

### **DET 2460 - Product Design Fundamentals Using 3D CAD**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Product Design is the creative process of applying scientific and mathematical principles, experience, and judgment to the development of the solution of a technical product or system to meet a specific need. Turning ideas into design will incorporate problem identification, market research and brainstorming possible solutions, develop detailed part and assembly drawings, implementation, and evaluation. Sketching, gears/cams/shafts, advanced GD&T, tolerance build-up, tolerances for assemblies, introduction to rapid prototyping, and CNC design for manufacturing concepts will be presented. Advanced 3-D modeling software applications will include: library of parts, assembly constraints, motion constraints, drive constraints, and adaptive design. Three lectures per week. Three lectures per week. Prerequisite: DET 1160.

### **DET 2650 - Product Design & Development**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Uses CAD to lay out advanced production drawings and design. Uses the Machinery's Handbook, ANSI standards, geometric dimensioning and tolerances and manufacturer's reference materials. Supports the design and drafting required for senior project. Prerequisite: DET 2460.

### **DET 2830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

Directed readings in Design Engineering Technology including product design and development and architectural areas. Must have department approval. Can be taken for 1-3 credit hours twice for a maximum of 6 credits.

### **DET 2890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to all advanced students in Design Engineering Technology. Department approval required before registration. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Can be taken for 1-3 credit hours twice for a maximum of 6 credits.

## **DET 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**Spring [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 3 times.

## **DET 3100 - Tool Design**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Tool design principals used for work piece control in manufacturing and production. Topics include responsibilities of a tool designer, the design process, economics of design, tooling materials, and tool drawings and specifications. Other topics will include jigs, fixtures, gages, dies and tooling required by specialized manufacturing processes. Prerequisite: MFET 1210, DET 2460, and MATH 1080 (or MATH 1050 and MATH 1060).

## **DET 3300 - Applied Kinematic Analysis**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Graphical representation of the motion of bodies without reference to the forces that cause the motion. Devices will be modeled and the limits of movement of components defined so that overall machine design can be animated and analyzed. Prerequisite: MFET 2300.

## **DET 3400 - Rendering Basics (Photoshop/3ds Max)**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

This course introduces students to the basic tools and concepts used in Adobe Photoshop and 3ds Max. Photoshop instruction includes using layers, image editing using selection tools, filtering, and touching up a 3D render. 3ds Max instruction includes importing models, adding materials, lighting a scene, and creating a basic animation.

## **DET 3460 - Parametric Design Graphics**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

An advanced design graphics course using state-of-the-art parametric modeling software. Topics include: parametric modeling fundamentals, constructive solid geometry concepts, model history, parent/child relationships, parametric constraints & relations, datum features, symmetrical features, 3D construction tools, advanced modeling tools, and assembly modeling. Prerequisite: DET 1010 and WEB 1700.

## **DET 3470 - Introduction to CATIA V5**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Use of parametric 3D modeling software to prepare engineering documentation and model analysis for the automotive and aerospace manufacturing industries. Students will complete a series of laboratory assignments and term projects in an open lab environment. Prerequisite: DET 1160.

### **DET 4400 - Animation Basics (3ds Max)**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is a continuation of DET 3400. An in-depth look into 3ds Max focusing more on photorealism and animation. Students will learn how to take models created in other programs learned throughout the DET program into 3ds Max and bring them to life. Video editing is covered to allow students to create professional animations and videos. Prerequisite: DET 3400.

### **DET 4470 - Advanced CATIA V5**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An advanced 3D CAD course featuring 3-D parametric modeling using commercially available software. Studies in parametric design and design intent, applying surfaces, rendering, and creating animated presentations for the automotive and aerospace industries. Prerequisite: DET 3470.

### **DET 4500 - Hydraulic and Pneumatic Applications**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Examines the components of hydraulic and pneumatic systems, including a detailed study of each type of system and the integration of all components required for machine design. The symbols used to document hydraulic and pneumatic systems and the selection of components from vendor catalogs will be included in the detailing of complete machines. Prerequisite: MET 3400.

### **DET 4600 - Senior Project I (Design)**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A Capstone project spanning two consecutive semesters. This semester concentrates on documenting the design solution. The project includes application of skills, knowledge, techniques and concepts to design and manufacture or construct a project. Emphasis placed on integrated project management including preparation of drawings, creation of presentations, project organization, control, and documentation. Prerequisite: Senior Project Application form, senior standing, approval of the department, and Associates Degree in DET or equivalent. (A student must apply for senior project one semester before the start of the senior project.) Co-Requisite: MFET 4610. Cross-listed with MFET 4610L.

### **DET 4610 - Senior Project II (Build)**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A Capstone project spanning two consecutive semesters. This semester concentrates on manufacturing or building the design solution. The project includes application of skills, knowledge, techniques and concepts to design and manufacture or construct a project. Emphasis placed on integrated project management including preparation of drawings, creation of presentations, project organization, control, and documentation. Prerequisite: DET 4600. Cross-listed with: MFET 4620L.

### **DET 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Directed readings in Design Engineering Technology including product design and development and architectural areas. Must have department approval. Can be taken for 1-3 credit hours twice for a maximum of 6 credits.

### **DET 4890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to all advanced students in Design Engineering Technology. Department approval required before registration. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Can be taken for 1-3 credit hours twice for a maximum of 6 credits.

### **DET 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Summer [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 3 times.

### **DMS 4110 - Sonography Principles & Instrumentation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Elementary principles, propagation through tissues, transducers, pulse echo principles and instruments, images, storage and display, Doppler, image features and artifacts, bioeffects, and safety.

### **DMS 4120 - Quality Assurance**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Developing, analyzing and evaluating a quality assurance program.

### **DMS 4210 - Cardiac Sonography I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Concepts in cardiac sonographic scanning technique and protocol to produce and evaluate diagnostic images.

### **DMS 4220 - Cardiac Sonography II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of 4203.

### **DMS 4230 - Cardiac Sonography III**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Continuation of DMS 4220.

### **DMS 4310 - Abdominal Sonography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Concepts in abdominal intraperitoneal and retroperitoneal sonographic scanning technique and protocol to produce and evaluate diagnostic images in the clinical setting.

### **DMS 4320 - Superficial Structure Sonography**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Concepts in superficial structure sonographic scanning technique and protocol to produce and evaluate diagnostic images in the clinical setting.

### **DMS 4330 - Gynecologic Sonography**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Concepts in gynecologic sonographic scanning technique and protocol to produce and evaluate diagnostic images.

**DMS 4340 - Obstetric Sonography**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Concepts in obstetric sonographic scanning technique and protocol to produce and evaluate diagnostic images.

**DMS 4410 - Vascular Sonography I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Concepts in vascular sonographic scanning technique and protocol to produce and evaluate diagnostic images.

**DMS 4420 - Vascular Sonography II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of DMS 4410.

**DMS 4510 - Breast Sonography**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Concepts in breast sonographic scanning technique and protocol to produce and evaluate diagnostic images.

**DMS 4610 - Cardiac Laboratory**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Patient position and instruction, transducer selection and anatomic placement, scanning protocol, and image quality are practiced and reviewed for cardiac sonographic examinations.

**DMS 4620 - Medical Laboratory**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Patient position and instruction, transducer selection and anatomic placement, scanning protocol, and image quality are practiced and reviewed for medical sonographic examinations.

### **DMS 4630 - Vascular Laboratory**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Patient position and instrumentation, transducer selection and anatomic placement, scanning protocol, and image quality are practiced for vascular sonographic examinations.

### **DMS 4801 - Individualized Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Contract with faculty advisor required. May be repeated twice with a maximum of 3 credit hours.

### **DMS 4811 - Cardiac Clinical I**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A minimum of 24 hours per week in an active diagnostic cardiac sonography department.

### **DMS 4812 - Cardiac Clinical II**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Continuation of DMS 4811.

### **DMS 4813 - Cardiac Clinical III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Continuation of DMS 4812.

### **DMS 4821 - Medical Clinical I**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A minimum of 24 hours per week in an active diagnostic medical sonography department.

**DMS 4822 - Medical Clinical II**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Continuation of DMS 4821.

**DMS 4823 - Medical Clinical III**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Continuation of DMS 4822.

**DMS 4831 - Vascular Clinical I**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

A minimum of 24 hours per week in an active diagnostic vascular sonography department.

**DMS 4832 - Vascular Clinical II**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Continuation of DMS 4831.

**DMS 4833 - Vascular Clinical III**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Continuation of DMS 4832.

**DMS 4841 - Breast Clinical**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

A minimum of 24 hours per week performing breast sonography examinations. Prerequisite: DMS 4510 Breast Sonography.

**DMS 4911 - Cardiac Comprehensive Review**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**

Review and requirements for advanced responsibilities of the cardiac sonographer.

**DMS 4912 - Medical Comprehensive Review**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Review and requirements for advanced responsibilities of the medical sonographer.

**DMS 4913 - Vascular Comprehensive Review**

**Credits: (1)**

**Typically taught:**

**Summer [Full Sem]**

Review and requirements for advanced responsibilities of the vascular sonographer.

**DMS 4921 - Workshops, Conferences and Telecourses**

**Credits: (1-3)**

May be repeated twice with a maximum of 3 credit hours.

**ECE 1000 - Introduction to Electrical Engineering**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introductory course to Electrical & Computer Engineering topics including electronic terms, numbering systems, software tools, and documentation practices. College algebra and trigonometry are strongly recommended.

Prerequisite/Co-requisite: MATH 1060 or MATH 1080 or equivalent.

**ECE 1270 - Introduction to Electrical Circuits**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

The basics of analog circuits as an introduction to Electrical Engineering. Concepts of voltage, current, power, resistance capacitance and inductance. Circuit analysis techniques such as Kirchhoff's Laws, node voltages, and mesh currents. Thevenin's and Norton's equivalent circuits, sinusoidal steady state and phasors. Lecture and lab combination.

Prerequisite: MATH 1210 and MATH 1220.

## **ECE 2260 - Fundamentals of Electrical Circuits**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Fundamental electric-circuit techniques including: time domain transient responses for 1st and 2nd order circuits, Laplace transforms, Fourier series, and filters. Lecture and lab combination. Prerequisite: ECE 1270, MATH 1220; MATH 2250 or MATH 2280 (may be taken concurrently).

## **ECE 2700 - Digital Circuits**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to digital electronics, integrated circuits, numbering systems, Boolean algebra, gates, flip-flops, multiplexers, sequential circuits, combinational circuits, and computer architecture. Introduction to hardware description language and programmable logic devices. Lecture and lab combination. Laboratory activities to include the design, construction, analysis, and measurement of basic digital systems. Prerequisite: ECE 1000 or ENGR 1000. May be taken concurrently. Co-Requisite: (Recommend) CS 2250 or CS 1410.

## **ECE 3000 - Engineering Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

An engineering seminar course designed to prepare the student for professional engineering employment. Topics to include resumes, hiring criteria, interviewing techniques, engineering ethics, professional and societal responsibilities, lifelong learning, diversity, creative problem solving, goals, quality, timeliness, and continuous improvement. The students will research related topics and write a paper. Prerequisite: ECE 1270.

## **ECE 3090 - Project Management**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Project Management course is designed to prepare students for the senior capstone project. The course will include development of a contract, goal setting, time management, budgeting, project funding, project leadership and team building principles. Engineering economics, team work, quality statistics and continuous improvement will also be discussed. Other topics include project life cycles, organization and risk management. Prerequisite: Permission from the department.

## **ECE 3110 - Microelectronics I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Fundamental semiconductor device characteristics including diodes, MOSFETs and bipolar transistors; small and large signal characteristics and design of linear circuits. Lecture and lab combination. Laboratory activities to include the

design, construction, computer simulation, and analysis of semiconductor circuits, amplifiers and power supplies. Prerequisite: ECE 1270 and MATH 1220.

### **ECE 3120 - Microelectronics II**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Intermediate topics related to microelectronics including differential and multistage amplifiers, frequency response, feedback systems, power amplifiers, filters, and signal generation. Lecture and lab combination. Laboratory activities to include the design, construction, computer simulation, and analysis of filters and advanced circuits. Prerequisite: ECE 2260 and ECE 3110.

### **ECE 3210 - Signals and Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Topics related to the analysis of linear time invariant continuous and discrete systems and signal transformations, convolution, frequency spectra, Laplace transforms, Z transforms, and fast Fourier transforms. Lecture and lab combination. Laboratory activities to include the computer simulation, analysis, and numerical modeling of signals and systems. Prerequisite: ECE 2260 and MATH 2250 or MATH 2270 and MATH 2280.

### **ECE 3310 - Electromagnetics I**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to electrostatics, magnetostatics and Maxwell's equations with specific applications to wave propagation and transmission line theory. Lecture and lab combination. Laboratory activities to include the design, construction, and analysis of RF radar subsystems. Prerequisite: MATH 2210, PHYS 2220, and ECE 2260.

### **ECE 3510 - Power Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

A study of AC and DC power systems and machines, including single and 3-phase power, power factor and correction, transformers, synchronous and induction machines, DC motors, power transmission lines, and analysis of power flow and faults. Lecture and Lab combination. Prerequisite: ECE 2260.

### **ECE 3610 - Digital Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to microprocessor architecture, arithmetic logic units, memory systems, input/output interfaces, peripheral devices, and communication. Lecture and lab combination. Laboratory activities to include the programming and operation of microprocessor circuits. Prerequisite: ECE 2700 and CS 2250 or CS 1410.

## **ECE 3710 - Embedded Systems**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Design and implementation of a microcontroller or microprocessor embedded system including assembly language programming, interfacing to peripherals, interrupt handling and debugging techniques. Lecture and Lab. Laboratory exercises build toward a final embedded systems project. Prerequisite: ECE 2700, and CS 2250 or CS 1410.

## **ECE 3890 - Internship**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This is a core course that is required for the BS Engineering degree. ECE 3890 can be taken a maximum of three times for a total of three credits, but only one credit counts toward the major. The student will need department approval before being allowed to register. Prerequisite: Permission from the department.

## **ECE 4010 - Senior Project I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will be required to complete a 200-hour engineering project in a team environment. Project management and problem solving techniques will be emphasized. Topics to include goal setting, developing milestone charts, writing contracts, conducting research, project design and construction, testing and analysis, project documentation, and design review presentations. Prerequisite: Permission from the department.

## **ECE 4020 - Senior Project II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

**Fall [Full Sem]**

A continuation of Senior Project I. Students will be required to complete a significant engineering project in a team environment. Project management and problem solving techniques will be emphasized. Topics to include goal setting, developing milestone charts, writing contracts, conducting research, project design and construction, testing and analysis, project documentation, and design review presentations. Prerequisite: ECE 4010.

## **ECE 4100 - Control Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Topics related to control theory, analysis, and testing of systems in the time domain, frequency domain and state space. Lecture and lab combination. Prerequisite: ECE 3110 and ECE 3210.

### **ECE 5110 - Digital VLSI Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to Digital VLSI design. Includes the development of standard cell library of common CMOS circuits. Use of hardware description language and CAD tools for the design and simulation of custom large-scale digital systems. Students will understand the impacts and tradeoffs from speed, power consumption, and thermal properties of large-scale custom ICs. Prerequisite: ECE 3610.

### **ECE 5120 - Advanced VLSI Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Design of stable asynchronous VLSI systems. Course includes design, modeling, synthesis, optimization, and verification of asynchronous circuits and large-scale systems. Students will develop custom asynchronous libraries and utilize them for system design utilizing CAD programs. Prerequisite: ECE 5110.

### **ECE 5130 - Advanced Semiconductor Devices**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to advanced semiconductor physics and devices. Topics include carrier transport theory, energy band diagrams, PN junctions, metal-semiconductor junctions, BJTs and MOSFETs. Study of current semiconductor process technologies and discussion of off-roadmap technologies. Prerequisite: PHYS 2220 and ECE 3110.

### **ECE 5210 - Digital Signal Processing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, application, and implementation of digital signal processing (DSP) concepts, from the design and implementation perspective. Topics include: Fast Fourier transforms, adaptive filters, state-space algorithms, random signals, and spectral estimation. Prerequisite: ECE 3210.

### **ECE 5220 - Image Processing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Advanced image processing theory and methods. Topics include digital image formation, transformation, filtering, enhancements, segmentation and morphological processing. Lectures, computer assignments and project (including term paper). Prerequisite: ECE 3210.

## **ECE 5310 - Electromagnetics II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of intermediate electromagnetic issues common to circuits, systems, and communication networks. Prerequisite: ECE 3310.

## **ECE 5410 - Communication Circuits and Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of communication circuits, modulation and decoding theory, spectrum usage, networks, and protocols. Prerequisite: ECE 3210 and MATH 3410.

## **ECE 5420 - Digital Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course provides an in-depth coverage of the theory, analysis, and design of digital communications systems with an emphasis on advanced topics related to wired, wireless data communication and the physical networking layer. Topics include QPSK, QAM, PAM, CSMA/CD, SONET, ADSL, and/or MACAW. Spread spectrum concepts such as FHSS, DSSS, OFDM, MIMO and/or cooperative communication techniques may be included. Students will develop Matlab based models to emulate the concepts. The course will include group projects as well as individual assignments. The course would be beneficial particularly to students who are interested in doing work/research in fields related to communications, networks, and signal processing.

## **ECE 5510 - Advanced Power Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will explore advanced power systems concepts. Prerequisite: ECE 3510.

## **ECE 5620 - Digital System Testing**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Fundamentals of testing digital circuits and memory devices, including fault modeling, test pattern generation, and test coverage. Introduction to design for test and built-in self-test. Laboratory activities include performing bench and automated testing of digital and memory chips, and generating test patterns for fault detection.

## **ECE 5710 - Real-Time Embedded Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An advanced course on real-time embedded system design. Topics include task concurrency, scheduling paradigms, synchronization, resource access control, and inter-process communication. Lecture and Lab combination. Prerequisite: ECE 3710.

### **ECE 5800 - Individual Studies**

#### **Credits: (1-4)**

The students will receive credit for approved studies in the Electrical & Computer Engineering programs. A maximum of four credits can count as an elective course in the Electrical & Computer Engineering programs.

### **ECE 5900 - Special Topics**

#### **Credits: (1-4)**

A one-time special study course designed to introduce a new relevant topic that is not covered in the Electrical & Computer Engineering programs. Lecture and lab combination. Laboratory activities support the selected course topic. A maximum of four credits can be counted for the Electrical & Computer Engineering programs.

### **ECE 6010 - Design Project**

#### **Credits: (2-6)**

Students are required to complete a substantial engineering design project. Students must demonstrate proficiency in research, design, analysis, project planning, implementation, testing, presentation and documentation. Students receive T (temporary) grades until their final design review, after which these grades are changed retroactively. Students must be enrolled in ECE 6010 at the time of their final design review. This course may be repeated. Prerequisite: Permission from the department.

### **ECE 6020 - Thesis**

#### **Credits: (2-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students are required to perform original research that results in a thesis under the direction of a faculty advisor. Students receive T (temporary) grades until their thesis defense, after which these grades are changed retroactively. Students must be enrolled in ECE 6020 at the time of their thesis defense. This course may be taken 3 times and up to 9 credits. Prerequisite: Permission from the department.

### **ECE 6110 - Digital VLSI Design**

#### **Credits: (3)**

Introduction to Digital VLSI design. Includes the development of standard cell library of common CMOS circuits. Use of hardware description language and CAD tools for the design and simulation of custom large-scale digital systems. Students will understand the impacts and tradeoffs from speed, power consumption, and thermal properties of large-scale custom ICs. Prerequisite: ECE 3610.

### **ECE 6120 - Advanced VLSI Design**

#### **Credits: (3)**

Design of stable asynchronous VLSI systems. Course includes design, modeling, synthesis, optimization, and verification of asynchronous circuits and large-scale systems. Students will develop custom asynchronous libraries and utilize them for system design utilizing CAD programs. Prerequisite: ECE 3610.

### **ECE 6130 - Advanced Semiconductor Devices**

**Credits: (3)**

Introduction to advanced semiconductor physics and devices. Topics include carrier transport theory, energy band diagrams, PN junctions, metal-semiconductor junctions, BJTs and MOSFETs. Study of current semiconductor process technologies and discussion of off-roadmap technologies. Prerequisite: PHYS 2220 and ECE 3110.

### **ECE 6210 - Digital Signal Processing**

**Credits: (3)**

Theory, application, and implementation of digital signal processing (DSP) concepts, from the design and implementation perspective. Topics include: Fast Fourier transforms, adaptive filters, state-space algorithms, random signals, and spectral estimation. Prerequisite: ECE 3210.

### **ECE 6220 - Image Processing**

**Credits: (3)**

Advanced image processing theory and methods. Topics include digital image formation, transformation, filtering, enhancements, segmentation and morphological processing. Lectures, computer assignments and project (including term paper). Prerequisite: ECE 3210.

### **ECE 6310 - Electromagnetics II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of intermediate electromagnetic issues common to circuits, systems, and communication networks. Prerequisite: ECE 3310.

### **ECE 6410 - Communication Circuits and Systems**

**Credits: (3)**

A study of communication circuits, modulation and decoding theory, spectrum usage, networks, and protocols. Prerequisite: ECE 3210 and MATH 3410.

### **ECE 6420 - Digital Communication**

**Credits: (3)**

This course provides an in-depth coverage of the theory, analysis, and design of digital communications systems with an emphasis on advanced topics related to wired, wireless data communication and the physical networking layer. Topics include QPSK, QAM, PAM, CSMA/CD, SONET, ADSL, and/or MACAW. Spread spectrum concepts such as FHSS, DSSS, OFDM, MIMO and/or cooperative communication techniques may be included. Students will develop Matlab based models to emulate the concepts. The course will include group projects as well as individual assignments. The course would be beneficial particularly to students who are interested in doing work/research in fields related to communications, networks, and signal processing. Prerequisite: ECE 3210 and MATH 3410.

### **ECE 6620 - Digital System Testing**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Fundamentals of testing digital circuits and memory devices, including fault modeling, test pattern generation, and test

coverage. Introduction to design for test and built-in self-test. Laboratory activities include performing bench and automated testing of digital and memory chips, and generating test patterns for fault detection. Prerequisite: ECE 3610.

### **ECE 6710 - Real-Time Embedded Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An advanced course on real-time embedded system design. Topics include task concurrency, scheduling paradigms, synchronization, resource access control, and inter-process communication. Lecture and Lab combination. Prerequisite: ECE 3710 or CS 3100.

### **ECE 6900 - Special Topics**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A one-time special study course designed to introduce a new relevant topic that is not covered in the Electrical & Computer Engineering programs. Lecture or lecture and lab combination. Laboratory activities support the selected course topic. May be repeated 10 times and up to 12 credit hours.

### **ECON 1010 SS - Economics as a Social Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

An introduction to basic economic institutions and principles of economics for non-business and non-economics majors. The primary objective of the course is to provide a framework of economic approaches useful in the analysis of social problems. Topics include poverty, economic systems, crime, pollution, health, discrimination, unemployment, inflation, and the role of government in the economy.

### **ECON 1100 SS - Environmental Issues and Economic Policy**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

An analysis of policies which affect environmental resources. Emphasis on economic analysis of renewable and nonrenewable resources, pollution, and public policy. This course demonstrates economic solutions to environmental problems, and the role economics plays in designing environmental policy.

## **ECON 1740 AI - Economic History of the United States**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A critical study of the history of the American Economy, significant events, fundamental principles of a market economy, interactions between government and the market economy, and the evolution of fundamental economic institutions.

## **ECON 2010 SS - Principles of Microeconomics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

The application of economic concepts to the analysis of scarcity of individual, firm, and organizational behavior. Topic coverage includes the theories of how consumers and firms make choices, and how various rules guide their respective decisions. The course also explores the theory of market structures, such as perfect and imperfect competition, as well as monopoly. Prerequisite: MATH 1050 or 1080 or 1210 with a "C" or higher grade.

## **ECON 2020 SS - Principles of Macroeconomics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Analyzes human behavior and choices as they relate to the entire economy, with specific focus on national income measurement, unemployment, inflation, business cycles, global trade, and economic growth. Implications of different government policies, e.g., changes in taxation, government spending, money supply or interest rates for a stable economy and steady growth are explored. Prerequisite: ECON 2010 and (MATH 1050 or 1080 or 1210 with a "C" or higher grade).

## **ECON 2899 - Economics Foundations and Admission Assessment**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Completion of ECON 2899 is required of all non-business Economics students pursuing any major, minor, emphasis or certificate awarded by the John B. Goddard School of Business & Economics. The course objectives are: 1) assessment of Foundation knowledge, and 2) admittance to the Goddard School. Students should register for this course concurrent with (same semester as) their last required Foundation course (ECON 2010, ECON 2020 and QUAN 2600) or after the required Foundation courses have been completed. Students must have an overall GPA of 2.5 or higher and a Foundation GPA of 2.5 or higher and a minimum grade of "C-" in each of the three Foundation courses. *Credit/No credit*. Prerequisite/Co-requisite: Pre/ Co-requisite: ECON 2010, ECON 2020, QUAN 2600.

## **ECON 2920 - Short Courses, Workshops, Institutes, and Special Programs**

### **Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours with different topics.

## **ECON 3030 - Managerial Economics**

### **Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course uses the tools of differential calculus and regression theory to analyze the managerial decisions of individual firms. Prerequisite: MATH 1050, QUAN 2600, QUAN 3610.

## **ECON 3090 - History of Economic Thought**

### **Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course covers the major concepts and contributions of the scholars of the past in economic doctrine and interpretations. Prerequisite: ECON 2010, ECON 2020.

## **ECON 3110 - International Trade**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to the pure theory of trade, international trade agreements and negotiations (e.g., GATT, EU and NAFTA) and the institutions designed to encourage trade. Emphasis on the benefits of free trade as well as the reasons for the existence of trade barriers such as tariffs and quotas. Special topics include trade in agricultural products and international labor migration. Prerequisite: ECON 2010 and ECON 2020.

## **ECON 3120 - International Finance and Monetary Systems**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Applications of the principle of economics to the international monetary system. Special emphasis on the way in which international monetary institutions can facilitate trade. Macroeconomic models of an open economy are used to examine the effect that international trade and financial ties have on the domestic economy. Special topics include institutions such as the World Bank and the IMF, along with regional monetary unification in Europe. Prerequisite: ECON 2010, ECON 2020.

## **ECON 3150 - Business Studies Abroad-International Finance**

### **Credits: (3)**

This course studies the globalization of financial markets and the environment in which international finance takes place, e.g., the international monetary system. With this background, a global financial strategy design for corporations will be discussed. This course is taught at Fachhochschule Hof, Germany during each fall semester. Students enrolled in this

course have to participate in the Study Abroad Program (Contact: Doris Geide-Stevenson, ext. 7634, dgsteven@weber.edu).

### **ECON 3200 - Money and Banking**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course presents a detailed description and economic analysis of the U.S. financial system which includes the banking industry, bond and stock markets, and the Federal Reserve system. This course serves as an extension to the material covered in an introductory macroeconomics course. The enhanced understanding of the workings of the financial system, including the determination of interest rates, will be used to trace out the channels of monetary policy as conducted by the Federal Reserve and the effect of monetary policy on financial markets, such as the stock market. Prerequisite: ECON 2020.

### **ECON 3400 - Labor Economics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The study of labor economics explores choices made by the two sides of the labor market, employers and workers and how these choices interact in determining wage and employment levels. Hence, an important part of the course consists of a detailed analysis of labor demand and supply. This analysis is followed by a discussion of why the labor market often does not clear, i.e., why we observe unemployment. The analysis focuses on special features of the labor market such as minimum wage, labor unions and efficiency wages. Other topics include the effect of education and training on earnings, the optimal incentive structure of an employment contract and determinants of income inequality. Prerequisite: ECON 2010.

### **ECON 3410 - Women in the World Economy**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Applications of the principles of economics to the analysis of the economic status of women in the U.S. and elsewhere. The focus is on labor markets, income differentials, the tax system and household work. Special consideration is given to women in developing economies. Prerequisite: ECON 2010.

### **ECON 4010 - Intermediate Microeconomic Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The application of economic concepts to individual and firm behavior, consumer behavior, demand analysis, economics of the firm, and price theory. Prerequisite: ECON 2010, ECON 2020 and BSAD 2899 or ECON 2899.

### **ECON 4020 - Intermediate Macroeconomic Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The building of standard models to test theories of long-run economic performance and short-term fluctuations in closed and open economies. Emphasis is placed on how fiscal and monetary policies encourage long-run growth while mitigating the negative effects of short-term fluctuations. Prerequisite: ECON 2010, ECON 2020, QUAN 2400, and BSAD 2899 or ECON 2899.

### **ECON 4170 - Economic Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The application of economic principles to the challenging problems of third world and developing nations including Africa, Asia, Latin America and the newly independent states of the Former Soviet Union and Eastern Europe.

Prerequisite: ECON 2010 and ECON 2020.

### **ECON 4320 - Industrial Organization**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

The theory and performance of firms and industries in the context of substantial market power and market regulation.

Emphasis on oligopoly, game theory, and theory of markets within the context of global market competition.

Prerequisite: QUAN 2400 or ECON 3030, ECON 2010.

### **ECON 4520 - Public Finance**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course covers the aspects of economic policy that arise in the operations of a public budget. Topics addressed include economic theories of bureaucracy, public expenditures, and taxation. Prerequisite: ECON 2010, ECON 2020.

### **ECON 4550 - Introduction to Econometrics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Advanced Regression Analysis. Topics include ordinary least squares, generalized least squares, nonlinear regression, dummy variables, autocorrelation, heteroskedasticity, and serial correlation. Computers used extensively. Prerequisite: ECON 2010, ECON 2020, QUAN 2400, and QUAN 3610.

### **ECON 4560 - Mathematical Economics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Advanced application of mathematical modeling techniques to selected economic issues. Prerequisite: ECON 4010, ECON 4020, QUAN 2400, QUAN 3610.

### **ECON 4800 - Independent Research**

**Credits: (1-3)**

Individual work or work in small groups, by arrangement, in special topics not included in the announced course offerings. Prerequisite: QUAN 3610 and approval of instructor. May be repeated twice with a maximum of 3 credit hours.

### **ECON 4810 - Experimental Courses**

**Credits: (1-3)**

Experimental or one-time courses designed to fill a need in the community or investigate interesting and unusual topics. Prerequisite: ECON 2010, ECON 2020. May be repeated 5 times with a maximum of 6 credit hours with different topics.

### **ECON 4850 - Economics Study Abroad**

**Credits: (1-3)**

This course is designed for students who will study economics at one of the international partner universities of the Goddard School of Business and Economics as part of an extended study abroad visit. Students will explore the international economic institutions, business culture, and applications of economic theory to countries outside of the US. Students will study international economics as offered through a partner university (or other university with department chair approval). Prerequisite: ECON 2899 and BSAD 2899. May be repeated once up to 6 credits.

### **ECON 4860 - Economics Internship**

**Credits: (1-3)**

A structured professional-level field experience. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through the Business Economics or International Business Economics program courses. Prerequisite: BSAD 2899; Senior Standing; Instructor approval.

### **ECON 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours with different topics.

### **ECON 4970 - Introduction to Research Methods**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course prepares students for ECON 4980 Research Methods. Students will study the research process and the scientific method as it applies to economics. Students will have an opportunity to explore various fields and literature in order to design a thesis project for ECON 4980. Prerequisite: ECON 2899 or BSAD 2899.

### **ECON 4980 - Research Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A course designed for senior economics majors which requires the completion of an extensive thesis project. This course will focus on the formulation of hypotheses, review of relevant literature, and either theoretical or empirical analysis. Prerequisite: ECON 4970, BSAD 2899 or ECON 2899, QUAN 3610, ECON 4010 or ECON 4020.

### **EDUC 1010 - Exploring Teaching**

**Credits: (3)**

Students will explore the exciting world of teaching, examine what it means to be a teacher, and participate in field observations. This course is designed to introduce students to personal and professional experiences within the educational community. Prerequisite: This course or an equivalent approved course is a prerequisite to all licensure programs in the Department of Teacher Education.

### **EDUC 2000 - Social Studies Concepts for Elementary Teachers**

**Credits: (3)**

**Typically taught:**  
**[not currently taught]**

Fundamental concepts from the social sciences commonly found in elementary social studies curriculum.

### **EDUC 2010 - Human Exceptionality**

**Credits: (3)**

**Typically taught:**  
**Spring [Full Sem]**  
**Summer [2nd Blk]**

This course will introduce students to the characteristics of exceptional children with emphasis on the educational and psychological implications of disabilities to the development of the child. A minimum grade of C is required in this course. CEL.

### **EDUC 2604 - Information Resources in Education**

**Credits: (1)**

Intended for students interested in education, this one-credit hour course will assist in developing information literacy and academic research skills, and an understanding of academic integrity issues unique to the field of education. Students will develop skills in identifying, locating, retrieving, documenting, and critically evaluating both electronic and print resources that are appropriate for undergraduate research, with emphasis in education and related disciplines. Cross-Listed with LIBS 2604.

### **EDUC 2890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

For students not yet accepted to the Teacher Education Program who meet the minimum cooperative work experience requirements of the department. Provides academic credit for on-the-job experience. Amount of credit will be determined by the department. Fingerprinting/ background check must be completed prior to working in the schools. May be repeated up to 6 credit hours.

### **EDUC 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

The specific title and credit authorized will appear on the student transcript. May be taken on a Credit/No Credit basis. May be repeated up to 6 credit hours.

### **EDUC 3100 - Instructional Planning & Assessment**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course introduces the basic concepts of lesson and unit design, planning and assessment based on student needs. Prerequisite: Completion of Elementary Education Level 1 courses with a grade of B- or better. This course is part of Elementary Education Level 2 and should be taken with EDUC 3210, EDUC 3240, EDUC 4345, PEP 3620.

### **EDUC 3110 - Instructional Technology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course allows students to apply existing technology literacy into educational environments to promote enhanced learning. The curriculum is based on teacher skills required to teach Utah State Educational Technology Standards for students in K-8 settings. The course focuses on providing teacher licensure candidates with basic technology proficiencies for teaching with technology. Prerequisite: Completion of the computer and information literacy requirements.

### **EDUC 3115 - Media Integration in Elementary Education Settings**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course focuses on how to create media to support and apply research-based principles for learning into educational environments. The course content is based on Utah core curriculum skills for students in the K-8 setting. The course provides students with technology proficiencies for integrating technology into teaching. Prerequisite: Admission to Teacher Education. Verification of technology literacy training (through coursework or job experience) within the past five years. Completion of the computer and information literacy requirements and completion of Elementary Education Level 2 courses with a grade of B- or better. This is part of Elementary Education Level 3 and should be taken with EDUC 3280, EDUC 4210, EDUC 4300, EDUC 4320, and EDUC 4330.

### **EDUC 3116 - Media Integration in Elementary Education Settings 1**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full sem]**

This course is an orientation to using media and technology to support and apply research-based principles for learning in educational environments for traditional, blended, and online instruction. Students will be taught to integrate technology into the curriculum to support meaningful instruction for both teaching and learning. Students will be introduced to cloud computing and taught how to design, administer, and assess digital curriculum. The course content is based on Utah core curriculum skills for students in the K-8 setting. Students will develop an e-portfolio. Prerequisite: Admission to Teacher Education. This is part of Elementary/Early Childhood/Special Education Level 1 and should be taken with EDUC 3120, EDUC 3140, EDUC 3205, and EDUC 3270.

## **EDUC 3117 - Media Integration in Elementary Education Settings 2**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course focuses on integrating media and technology to support and apply research-based principles for learning in educational environments for traditional, blended, and online instruction. Students will continue to develop their skills and knowledge about how to incorporate technology into the curriculum to support meaningful instruction. A variety of technologies will be utilized for designing digital curriculum and developing 21st century standards. The course content is based on Utah core curriculum skills for students in the K-8 setting. Students continue to create an e-portfolio.

Prerequisite: Successful completion (B- or better) of Elementary/Early Childhood Level 1. This is part of Elementary/Early Childhood Education Level 2 and should be taken with EDUC 3100, EDUC 3210, EDUC 3230, EDUC 3240 and EDUC 4345.

## **EDUC 3120 - Reading Instruction in the Primary Grades**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to familiarize the teacher candidate with current knowledge and practices as they relate to teaching literacy (reading, writing, listening, and speaking) in the primary grades (K-2). Prerequisite: Admission to Teacher Education. This course is part of Elementary Education Level 1 and should be taken with EDUC 3140, EDUC 3205, EDUC 3270, EDUC 4550.

## **EDUC 3140 - Educational Psychology, Interpersonal Skills and Classroom Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The focus of this course is the fundamental theories and philosophies, concepts, processes, and applications related to human behavior, teaching and learning, interpersonal relationships, and classroom management. Prerequisite: Admission to Teacher Education. This course is part of Elementary Education Level 1 and should be taken with EDUC 3120, EDUC 3205, EDUC 3270, EDUC 4550.

## **EDUC 3205 - Culturally and Linguistically Responsive Teaching**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Rationales, concepts, practices provide a scope of understanding and awareness regarding the role of cultural and language pluralism in school and society. Foundations and theories on the role of family and community influence on student values are also explored. Experiences are provided intended to develop basic skills in personal interaction and adaptation to teaching diverse populations. Prerequisite: Admission to Teacher Education. This course is part of Elementary Education Level 1 and should be taken with EDUC 3120, EDUC 3140, EDUC 3270, EDUC 4550.

### **EDUC 3210 - Elementary Level II Practicum**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this practicum is to provide students with opportunities to design and implement integrated instruction in the elementary grades. Instruction will focus on integrating the arts, healthy lifestyles, and literacy. Students are required to spend at least 40 hours in an assigned classroom. Prerequisite: Admission to Teacher Education. Completion of Elementary Education Level 1 courses with a grade of B- or better. This course is part of Elementary Education Level 2 and should be taken with EDUC 3100, EDUC 3240, EDUC 4345, PEP 3620.

### **EDUC 3220 - Foundations of Diversity**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Rationales, concepts, practice provide a scope of understanding and awareness regarding the role of cultural and language pluralism in school and society. Foundations and theories on the role of family and community influence on student values. Experiences intended to develop basic skills in personal interaction and adaptation to teaching diverse populations. Prerequisite: Admission to Teacher Education. This course is part of the professional core courses and should be taken with EDUC 3265, EDUC 3315, EDUC 3900, EDUC 3910, and EDUC 3935.

### **EDUC 3230 - Data Analysis for Elementary Teachers and Math Pedagogy**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will focus on the study of statistics and probability in the Utah mathematics core (K-8) and appropriate mathematics teaching methods. Emphasis will also be on the developing an understanding of the Standards of Mathematical Practice. Teaching mathematics for deep conceptual understanding and connections to other subject areas and real life situations will be addressed. This course builds upon and will use content learned in MATH 2010, 2015, and 2020. Prerequisite: Successful completion (B- or better) of Elementary/Early Childhood Level 1. Should be taken with Elementary/Early Childhood Level 2 courses.

### **EDUC 3240 - Reading Instruction in the Intermediate Grades**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will provide methods, foundations, and assessments for developmental reading in the elementary school, Grades 3-6. Prerequisite: Admission to Teacher Education. Completion of Elementary Education Level 1 courses with a grade of B- or better. This course is part of Elementary Education Level 2 and should be taken concurrently with EDUC 3100, EDUC 3210, EDUC 4345, PEP 3620.

## **EDUC 3265 - The Exceptional Student**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will learn about the learning and social characteristics of young people with exceptionalities-that is, disabilities (physical, mental, learning) or giftedness-and about public policy and services available to them. As future teachers, they will learn about how such individuals are identified and served by the school system, what strategies are effective for instructing them, and roles and responsibilities of school personnel in providing appropriate educational experiences for all students in an inclusive classroom. Prerequisite: Admission to Teacher Education. This course is part of the professional core courses and should be taken with EDUC 3220, EDUC 3900, EDUC 3315, EDUC 3935, EDUC 3910.

## **EDUC 3270 - Differentiation and Collaboration for Inclusive Teaching**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA-04) mandates that students with disabilities be educated "to the maximum extent appropriate with children who are not disabled." The expectation is that students with disabilities will have access to, and make adequate progress in, the general curriculum. Therefore, it is essential for general educators and special educators to work collaboratively. This course is designed to provide preservice teachers with the knowledge and skills of effective inclusive teaching practices. Prerequisite: Admission to Teacher Education and EDUC 2010. This course is part of Elementary Education Level 1 and should be taken concurrently with EDUC 3120, EDUC 3140, EDUC 3205, EDUC 4550.

## **EDUC 3280 - Elementary Social Studies Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course focuses on the place of social studies in the elementary school curriculum, the scope and rationale of the social studies curriculum, connections with other subject areas, teaching and assessment strategies, and building classroom community. Prerequisite: Admission to Teacher Education. Completion of Elementary Education Level 2 courses with a grade of B- or better. This course is part of Elementary Education Level 3 and should be taken with EDUC 3115, EDUC 4210, EDUC 4300, EDUC 4320, EDUC 4330.

## **EDUC 3315 - Media Integration in the Secondary School Setting**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course focuses on how to create media to support and apply research-based principles for learning into the educational environments. The curriculum is based on Core Curriculum skills for students in grades 9-12. The course content provides teacher licensure candidates with technology proficiencies for integrating technology into teaching. Prerequisite: Admission to Teacher Education. Verification of technology literacy training (through coursework or job experience) within the past five years. Completion of the computer and information literacy requirements. This course is part of the professional core courses and should be taken with EDUC 3220, EDUC 3265, EDUC 3900, EDUC 3910, EDUC 3935.

### **EDUC 3370 - Advanced Instructional Technology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course allows students to apply existing technology literacy into educational environments to promote advanced use of educational technology in learning environments. The curriculum is based on teacher skills required to teach Utah State Educational Technology Standards for students in K-6 settings. The course focuses on providing teacher licensure candidates with advanced technology proficiencies for teaching with technology. Prerequisite: Verification of technology literacy training (through coursework or job experience) within the past five years. Completion of the computer and information literacy requirements.

### **EDUC 3375 - Foundations of Dual Immersion or Immersion Education**

**Credits: (3)**

The course examines the background, underlying theory, and research foundations that support dual language and immersion education practices. Issues for teachers and administrators will be addressed. Practices and principles that inform language attentive curriculum will be a focus of the course.

### **EDUC 3390 - Literacy in the Primary Grades**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Analysis of developmental reading skills with emphasis on readiness for reading, phonic and structural analysis, word recognition, use of the basal reader, and reading for various purposes.

### **EDUC 3430 - Creative Processes in the Elementary School**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course focuses on the development of attitudes, methods, and skills in creative teaching, including an exploration of using music, art, dance, and drama in the elementary classroom. Graduate students will also explore philosophy, research, and theories that support arts integration, and development of teaching strategies and materials for use in the elementary classroom.

### **EDUC 3545 - Universal Positive Behavior Support Strategies for Teachers**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to teach teacher candidates validated classroom management strategies and level one behavioral intervention strategies. This course focuses on techniques and methods for preventative classroom student management. The course will assist candidates in writing effective classroom management plans. Candidates will be introduced to the process of Functional Behavior Assessments and Behavior Intervention Plans. Prerequisite: Completion of Education Level 1 courses with a grade of B- or better. Co-Requisite: EDUC 3565, EDUC 3575, EDUC 4515, EDUC 4521, EDUC 4530.

## **EDUC 3565 - Elementary English Language Arts: Evaluation, Remediation and Supports**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to teach teacher candidates validated evaluation and remediation strategies for K-5 students struggling in English Language Arts, focusing on techniques in elementary reading, writing, speaking, listening, and language. Candidates will be introduced to the process of identifying reading and writing difficulties, selecting evidence-based interventions, implementing instruction, and using the data-based instructional decision model to monitor students' ELA progress and intervention effectiveness. Prerequisite: Completion of Education Level 1 courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 2 courses and should be taken with EDUC 3545, EDUC 3575, EDUC 4515, EDUC 4521, EDUC 4530.

## **EDUC 3575 - Elementary Mathematics: Evaluation, Remediation and Supports**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to teach teacher candidates validated evaluation and remediation strategies for K-5 students struggling in mathematics. This course focuses on techniques in elementary mathematics. Candidates will be introduced to the process of identifying math difficulties, selecting evidence based interventions, implementing instruction, and using the data-based instructional decision model to monitor students' math progress and intervention effectiveness. Prerequisite: Completion of Education Level 1 courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 2 courses and should be taken with EDUC 3545, EDUC 3565, EDUC 4515, EDUC 4521, EDUC 4530.

## **EDUC 3900 - Preparing, Teaching, and Assessing Instruction**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This integrated course will focus on lesson planning, teaching, and assessment through the application of the Teacher Work Sample (TWS) using lesson plan formats taught in the content areas. A variety of instructional strategies effective for use at the secondary level will be taught and modeled. Prerequisite: Admission to Teacher Education. This course is part of the professional core courses and should be taken with EDUC 3220, EDUC 3315, EDUC 3265, EDUC 3910, and EDUC 3935.

## **EDUC 3910 - Secondary Education Practicum**

**Credits: (2)**

The purpose of this practicum is to provide students with opportunities to design and implement content-specific instruction at the secondary level. Students are required to spend at least 40 hours in an assigned classroom.

Prerequisite: Admission to Teacher Education. This course is part of the professional core courses and should be taken with EDUC 3220, EDUC 3265, EDUC 3315, EDUC 3900, EDUC 3935.

## **EDUC 3935 - Reading and Writing Across the Secondary Curriculum**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will focus on assessment of reading comprehension of students, and decisions teachers make concerning methods, materials and procedures based on those assessments. Teacher candidates will integrate literacy skills (vocabulary, study skills, comprehension development and writing) within their respective content areas and teach sample lessons to secondary students. Prerequisite: Admission to Teacher Education. This course is part of the professional core courses and should be taken with EDUC 3220, EDUC 3265, EDUC 3315, EDUC 3900, EDUC 3910.

### **EDUC 4210 - Elementary Level III Practicum**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this practicum is to provide students with opportunities to design and implement integrated instruction in the elementary grades. Instruction will focus on instruction of core subjects including language arts, mathematics, science, and social studies. Students are required to spend at least 60 hours in an assigned classroom. Prerequisite: Admission to Teacher Education. Completion of Elementary Education Level 2 courses with a grade of B- or better. This course is part of Elementary Education Level 3 and should be taken with EDUC 3115, EDUC 3280, EDUC 4300, EDUC 4320, EDUC 4330.

### **EDUC 4250 - Second Language Acquisition: Theories and Implementation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course explores second language acquisition processes, current theories, and effective strategies as a knowledge base in planning appropriate curriculum and instruction for English language learners.

### **EDUC 4270 - Literacy Strategies for Teaching English Language Learners**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will examine literacy strategies for English Language Learners. Teacher candidates will learn how to apply literacy strategies to teach reading, writing, listening and speaking skills, while including culture, to scaffold language development in both the second language and mainstream classrooms.

### **EDUC 4300 - Elementary Mathematics Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course includes the study of mathematics methods appropriate for elementary school curriculum with specific emphasis on developmental strategies including the concrete-representational-abstract instructional model. Connections to other subject areas, problem solving, critical thinking skills and real-life situations are stressed. Prerequisite: Completion of Elementary Education Level 2 courses with a grade of B- or better. This course is part of Elementary Education Level 3 and should be taken with EDUC 3115, EDUC 3280, EDUC 4210, EDUC 4320, EDUC 4330.

### **EDUC 4310 - Foundations of Cooperative Learning**

**Credits: (2)**

This course examines the rational, principles, skills and interaction strategies necessary before implementing Cooperative

Learning in the classroom. Emphasis will be upon the basic components of Cooperative Learning, team building, and simple teamwork. Methods and strategies will be demonstrated and will involve active student group participation.

### **EDUC 4320 - Elementary Language Arts Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course focuses on methods for language arts instruction in the elementary setting with specific emphasis on writing strategies. Particular emphasis is given to models of research-based instruction of core curriculum in language art. Prerequisite: Completion of Elementary Education Level 2 courses with a grade of B- or better. This course is part of Elementary Education Level 3 and should be taken with EDUC 3115, EDUC 3280, EDUC 4210, EDUC 4300, EDUC 4330.

### **EDUC 4330 - Elementary Science Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course focuses on methods and materials for teaching hands-on guided discovery science with an emphasis on concepts included in the Utah core curriculum. Prerequisite: Completion of Elementary Education Level 2 courses with a grade of B- or better. This course is part of Elementary Education Level 3 and should be taken with EDUC 3115, EDUC 3280, EDUC 4210, EDUC 4300, EDUC 4320.

### **EDUC 4345 - Elementary Integrated Arts Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to prepare students to successfully teach art and music in the elementary classroom. Students are expected to design, prepare and teach lessons to engage elementary students in art and music activities. Prerequisite: Admission to Teacher Education. Completion of Elementary Education Level 1 courses with a grade of B- or better. This course is part of Elementary Education Level 2 and should be taken with EDUC 3100, EDUC 3210, EDUC 3240, PEP 3620.

### **EDUC 4350 - Elementary Mathematics Pedagogy**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full sem]**

This course will focus on the study of appropriate mathematics teaching methods for the Utah core curriculum. Emphasis will be on teaching mathematics for deep conceptual understanding and connections to other subject areas and real life situations. Students will practice teaching mathematics using content from the K-8 Utah Mathematics Core. Prerequisite: EDUC 3230.

### **EDUC 4380 - Student Teaching in Elementary Education**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Student teaching experience in elementary public school setting plus weekly seminar on campus. Offered CR/NC only. Prerequisite: EDUC Level 3 (EDUC 3115, EDUC 3280, EDUC 4210, EDUC 4300, EDUC 4320, EDUC 4330) and permission of Field Experience Director. Can be repeated one time. Should be taken concurrently with EDUC 4950 the first time.

### **EDUC 4415 - Content-Based Second Language Curriculum, Instruction and Assessment**

**Credits: (3)**

Participants in this course learn to plan curriculum and instruction for dual language and immersion classrooms that combine language and content goals using standards-based and backwards design approaches. They also learn a range of classroom-based strategies for assessing language and content.

### **EDUC 4420 - Foundations of Education of the Gifted**

**Credits: (2)**

**Typically taught:**

**(not currently taught)**

An overview of education for the gifted and talented; historical and philosophical background; characteristics, needs, and developmental patterns of the gifted; issues in identification, differentiating curriculum, and educational program options; special populations of gifted students.

### **EDUC 4450 - Creativity and Applied Imagination in the K-12 Classroom**

**Credits: (2)**

**Typically taught:**

**(not currently taught)**

Exploration and development of readily available personal and community resources to encourage creative thinking, classroom involvement, and transfer of learning.

### **EDUC 4470 - Teaching for Thinking**

**Credits: (2)**

**Typically taught:**

**(not currently taught)**

Theory and practice for teaching thinking skills in elementary, middle, and high school classrooms. Prerequisite: Admission to Teacher Education and EDUC 3140 or equivalent.

### **EDUC 4480 - Differentiated Curriculum for the Gifted and Talented**

**Credits: (3)**

**Typically taught:**

**(not currently taught)**

Curriculum theories and educational strategies for educating gifted and talented students. A practical course, with special attention to the development of instructional materials appropriate for use by gifted students in special programs as well as in the regular classroom.

## **EDUC 4490 - Assessment and Evaluation in Education of the Gifted**

**Credits: (3)**

**Typically taught:**

**(not currently taught)**

Principles of assessment applied to: identification of gifted and talented students including identification of gifted in minority populations, diagnosis of student learning needs, learning styles, evaluation of student progress, and evaluation of program effectiveness.

## **EDUC 4510 - Foundations in Special Education Practice and Law**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course will introduce students to the philosophical, historical, legal and ethical foundations of special education. Students will examine in depth the characteristics of exceptional learners. Prerequisite: Admission to Teacher Education, EDUC 2010.

## **EDUC 4515 - Special Education Law and Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides students with a broad knowledge and understanding of a wide range of legal issues concerning the provision of special education services to students with disabilities. A review of pertinent legislation concerning human and constitutional rights related to persons with disabilities will be addressed. Teachers' specific responsibilities and liabilities are described and related to current requirements for development of appropriate educational programs. Prerequisite: Admission to Teacher Education. Co-Requisite: This course is part of Special Education Block 2 courses and should be taken with EDUC 3545, EDUC 3565, EDUC 3575, EDUC 4521, EDUC 4530.

## **EDUC 4520 - Collaboration, Consultation, and IEP Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Roles of the special educator and families. IEP development, Least Restrictive environment, managing multidisciplinary team activities and techniques of collaboration and consultation. Prerequisite: Admission to Teacher Education.

## **EDUC 4521 - Practicum in Special Education**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This Practicum experience will focus on a) assessment, b) behavior management, and c) mathematics instruction in a field-based experience. Students will be introduced to the IEP process and will practice developing collaborative relationships within school settings. Prerequisite: Completion of Special Education Block 1 Foundation courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 2 courses and should be taken with EDUC 3545, EDUC 3565, EDUC 3575, EDUC 4515, EDUC 4530.

## **EDUC 4530 - Principles and Applications of Special Education Assessment**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Administer, score, and interpret norm-referenced assessments instruments, analyze in combination with data from other assessment processes, and use to determine eligibility and develop educational programs. Requires passing Block 1 with a B- or better. This course is part of Special Education Block 3 courses and should be taken with EDUC 4545, EDUC 4565, EDUC 4575, EDUC 4580.

## **EDUC 4540 - Managing Student Behavior**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Current issues, practices, and application of a variety of approaches for behavior change, discipline and management of the classroom environment, and the teaching of appropriate social skills. This course is part of Special Education Block 1 courses and should be taken with EDUC 4521, EDUC 4530, EDUC 4550, EDUC 4560.

## **EDUC 4545 - Individualized Behavioral Strategies using Applied Behavior Analysis**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to teach teacher candidates validated individual behavioral intervention strategies, particularly those designed to meet the needs of students with severe behavioral and social skill deficits. This course will address the needs of those candidates using Applied Behavior Analysis. Candidates will conduct functional assessments and write and implement a function-based behavior intervention plan. Prerequisite: Completion of Education Level 2 courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 3 Advanced Methods and should be taken with EDUC 4565, EDUC 4575, EDUC 4580, EDUC 4582.

## **EDUC 4550 - Instructional Planning and Learning Environments for Special Education Students**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Instructional programming and modification of curriculum for students with disabilities served by teachers with Mild/Moderate Endorsements. Prerequisite: Admission to Teacher Education. This course is part of Elementary Education Level 1 and should be taken with EDUC 3120, EDUC 3140, EDUC 3205, EDUC 3270.

## **EDUC 4555 - Validated Instructional Methods: Reading**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce principles and validated strategies for teaching reading to students with mild/moderate disabilities. The course will cover student characteristics and school setting demands that contribute to

lack of success in reading. Prerequisite: Completion of Special Education Block 2 Integrated Methods courses with a grade of B- or better. This course is part of Special Education Block 3 Advanced Methods courses and should be taken with EDUC 4570, EDUC 4580, EDUC 4581.

### **EDUC 4560 - Validated Instructional Methods: Mathematics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce principles and techniques for diagnosis and remediation of mathematics problems. The course will cover student characteristics and school setting demands that contribute to lack of success in mathematics classrooms. Prerequisite: Completion of Special Education Block 1 Foundation courses with a grade of B- or better. This course is part of Special Education Block 2 Integrated Methods courses and should be taken with EDUC 4521, EDUC 4530, EDUC 4540, EDUC 4550.

### **EDUC 4565 - Secondary English Language Arts: Evaluation, Remediation and Supports**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to teach teacher candidates validated evaluation and remediation strategies for 6-12 students struggling in English Language Arts, focusing on techniques in secondary reading, writing, speaking, listening, and language. Candidates will be introduced to the process of identifying reading and writing difficulties, selecting evidence-based interventions, implementing instruction, and using the data-based instructional decision model to monitor students' ELA progress and intervention effectiveness. Prerequisite: Completion of Education Level 2 courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 3 Advanced Methods and should be taken with EDUC 4545, EDUC 4575, EDUC 4580, EDUC 4582.

### **EDUC 4570 - Validated Instructional Methods: Written Expression**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce principles and validated strategies for teaching written expression to students with mild/moderate disabilities. The course will cover student characteristics and school setting demands that contribute to lack of success in written expression. Prerequisite: EDUC 4530. Co-Requisite: EDUC 4581. This course is part of Special Education Block 3 Advanced Methods courses and should be taken with EDUC 4555, EDUC 4580, EDUC 4581.

### **EDUC 4575 - Secondary Mathematics: Evaluation, Remediation and Supports**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to teach teacher candidates validated evaluation and remediation strategies for students in grades 6-12 struggling in mathematics. This course focuses on techniques in secondary mathematics. Candidates will be introduced to the process of identifying math difficulties, selecting evidence based interventions, implementing instruction, and using the data-based instructional decision model to monitor students' math progress and intervention effectiveness. Prerequisite: Completion of Education Level 2 courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 3 Advanced Methods and should be taken with EDUC 4545, EDUC 4565, EDUC 4580, EDUC 4582.

## **EDUC 4580 - Learning Strategies and Transition for Special Education Students**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Instructional programming and modification of curriculum for students with disabilities served by teachers with Mild/Moderate Endorsements. Prerequisite: Completion of Special Education Block 2 Integrated Methods courses with a grade of B- or better. This course is part of Special Education Block 3 Advanced Methods and should be taken with EDUC 4545, EDUC 4565, EDUC 4575, EDUC 4582.

## **EDUC 4581 - Pre-Student Teaching in Special Education: Assessment, Behavior Management, Instruction**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of Pre-Student Teaching is to continue field experience in a supportive and professional manner. The student will have the opportunity to experience teaching and the responsibilities that it entails under the direct guidance of the Cooperating Teacher and the Course Instructor. This course is designed to provide students with practical experiences in the areas of: a) literacy curriculum and instruction for students K-12, and (b) planning and developing post secondary transition plans. Practical experience in assessment and behavior management are continued. Prerequisite: Completion of Special Education Block 2 Integrated Methods courses with a grade of B- or better. This course is part of Special Education Block 3 Advanced Methods courses and should be taken with EDUC 4555, EDUC 4570, EDUC 4580.

## **EDUC 4582 - Special Education Level III Practicum**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this practicum is to provide teacher candidates with opportunities to implement content-specific instruction and demonstrate quality instruction while working in secondary special education classrooms. Prerequisite: Completion of Education Level 2 courses with a grade of B- or better. Co-Requisite: This course is part of Special Education Block 3 Advanced Methods and should be taken with EDUC 4545, EDUC 4565, EDUC 4575, EDUC 4580.

## **EDUC 4640 - Validated Instructional Methods: Mathematics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce principles and techniques for diagnosis and remediation of mathematics problems. The course will cover student characteristics and school setting demands that contribute to lack of success in mathematics classrooms.

### **EDUC 4650 - Validated Instructional Methods: Reading**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce principles and validated strategies for teaching reading to students with mild/moderate disabilities. The course will cover student characteristics and school setting demands that contribute to lack of success in reading.

### **EDUC 4660 - Validated Instructional Methods: Written Expression**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce principles and validated strategies for teaching written expression to students with mild/moderate disabilities. The course will cover student characteristics and school setting demands that contribute to lack of success in written expression.

### **EDUC 4670 - Special Education Student Teaching**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Supervised teaching in selected special education programs in an elementary or secondary school. Available on a CR/NC basis only. Prerequisite: successful completion of mild/moderate licensure course work and permission of the Field Experience Director. Can be repeated one time. Should be taken concurrently with EDUC 4686 the first time.

### **EDUC 4680 - Special Education Student Teaching**

**Credits: (8)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Supervised clinical practice in an elementary or secondary school at which candidates teach pupils with mild/moderate disabilities. Available on a CR/NC basis only. Prerequisite: Successful completion of Special Education major requirements, EDUC 4581, EDUC 4570 with B- or above. Must be taken concurrently with EDUC 4686.

### **EDUC 4685 - Special Education Student Teaching Seminar and Synthesis**

**Credits: (1)**

**Typically taught:**

**Non-majors**

The Seminar and Synthesis will support student teaching through regular meetings. Prerequisite: Successful completion of Special Education Licensure requirements. Must be taken concurrently with EDUC 4670.

## **EDUC 4686 - Special Education Student Teaching Seminar & Synthesis for Special Education Majors**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The Seminar and Synthesis will support student teaching through regular meetings on campus. Co-Requisite: EDUC 4680.

## **EDUC 4700 - Learning in the Schools**

**Credits: (2)**

Principles of learning and management and their application to the school situation. Prerequisite: Student teaching.

## **EDUC 4740 - Building School Partnerships with ESL/Bilingual Families**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course prepares students to be advocates and practitioners of family involvement in education. Goals and benefits of family involvement will be explored along with specific strategies for developing a partnership within the education system. Components of family structure, economics, cultural diversity, second-language learners, communication skills and resources are integrated into the student experience.

## **EDUC 4820E - Managing Diverse Classrooms**

**Credits: (3)**

**Typically taught:**

**(not currently taught)**

Current issues, methodology and application of a variety of approaches for behavioral change, discipline and management of diverse learners in the context of classroom environments. Prerequisite: Teacher Education Level 3 Elementary (EDUC 4300, EDUC 4320 or EDUC 4350 if previously taken, EDUC 4330, EDUC 4345). Should be taken concurrently with the other courses in Teacher Education Level 4 Elementary (EDUC 4840, EDUC 4860).

## **EDUC 4820S - Managing Diverse Classrooms**

**Credits: (3)**

**Typically taught:**

**(not currently taught)**

Current issues, methodology and application of a variety of approaches for behavioral change, discipline and management of diverse learners in the context of classroom environments. Prerequisite: Secondary Teacher Education Core (EDUC 3220, EDUC 3900, and EDUC 3935).

## **EDUC 4830 - Individually Prescribed Program**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Designed primarily for individual needs. May be repeated up to 6 credit hours.

## **EDUC 4840 - Student Teaching in Elementary Education**

**Credits: (8)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Student teaching experience in a public school to synthesize theory and practice. Support seminars held on campus. Available on a CR/NC basis only. Prerequisite: EDUC Level 3 (EDUC 3115, EDUC 3280, EDUC 4210, EDUC 4300, EDUC 4320, EDUC 4330) and permission of the Field Experience Director. Should be taken concurrently with EDUC 4850.

## **EDUC 4850 - Integrated Elementary Education Student Teaching Seminar and Synthesis**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will help prepare teacher candidates for student teaching and ultimately licensure with two different types of activities. First, are weekly, 3-hour collaboration and topical seminars emphasizing on-going discussions and support on classroom management, preparing the TWS and INTASC portfolio, creating your career file, and other education issues. Second, is a two-day workshop to synthesize the semester and have your INTASC portfolio assessed. Prerequisite: EDUC 4300, EDUC 4320, EDUC 4330, and EDUC 4345. (Should be taken concurrently with EDUC 4840.)

## **EDUC 4860 - Elementary Senior Synthesis Seminar**

**Credits: (1)**

**Typically taught:**

**(not currently taught)**

Synthesis of the TREC model for elementary programs with specific emphasis on beginning a professional career in teaching. Senior project is required. To be taken for CR/NC only. Prerequisite: Teacher Education Level 3 Elementary (EDUC 4300, EDUC 4320 or EDUC 4350 if previously taken, EDUC 4330, EDUC 4345). Should be taken concurrently with the other courses in Teacher Education Level 4 Elementary (EDUC 4820E, EDUC 4840).

## **EDUC 4870 - Directed Experiences with Students**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Directed experiences with elementary and secondary school students in cooperating schools. Students may register for one unit of credit per semester for a maximum of three semester hours.

## **EDUC 4890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

For students accepted to the Teacher Education Program who meet the minimum cooperative work experience requirements of the department. Provides academic credit for on-the-job experience. Amount of credit will be determined by the department. Fingerprinting/background check must be completed prior to working in the schools. May be repeated up to 6 credit hours.

## **EDUC 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

**Typically taught:**

**Consult the semester class schedule for the current offering under this number.**

The specific title and credit authorized will appear on the student transcript. Available on CR/NC basis. May be repeated up to 6 credit hours.

## **EDUC 4930 - Student Teaching in Secondary Education**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Student teaching experience in secondary public school setting plus weekly seminar on campus. Offered CR/NC only. Prerequisite: Secondary Teacher Education Core (EDUC 3220, EDUC 3265, EDUC 3315, EDUC 3900, EDUC 3910, EDUC 3935) and permission of the Field Experience Director. Can be repeated one time. Should be taken concurrently with EDUC 4950 the first time.

## **EDUC 4940 - Student Teaching in Secondary Education**

**Credits: (8)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Student teaching experience in a public school to synthesize theory and practice. Support seminars held on campus. Available on a CR/NC basis only. Prerequisite: Secondary Teacher Education Core (EDUC 3220, EDUC 3265, EDUC 3315, EDUC 3900, EDUC 3910, EDUC 3935). Should be taken concurrently with EDUC 4950 Integrated Secondary Student Teaching Seminar.

## **EDUC 4950 - Integrated Secondary Student Teaching Seminar**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Preparation and support for secondary clinical practice. Collaborative and topical seminars will emphasize on-going discussions and support on classroom management, ethics, preparing the TWS and INTASC portfolio, creating a career file, and secondary school issues. Prerequisite: Completion of Secondary Teacher Education Core (EDUC 3220, EDUC 3265, EDUC 3315, EDUC 3900, EDUC 3910, EDUC 3935). Should be taken concurrently with Student Teaching in Secondary Education (EDUC 4930 or EDUC 4940).

## **EDUC 4960 - Secondary Senior Synthesis Seminar**

**Credits: (1)**

**Typically taught:**

**(not currently taught)**

Synthesis of the TREC Model for elementary and secondary programs with specific emphasis on beginning a professional career in teaching. Senior Project is required. Should be taken concurrently with EDUC 4820S and EDUC 4840.

### **EDUC 5050 - Action Research in the Classroom**

**Credits: (2)**

**Typically taught:**

**(TBA, as needed)**

Students will explore effective classroom-based research techniques, complete a classroom-based case study, and promote the ongoing application of research to the improvement of teaching practice. This course is designed for cooperating teachers in the site-based teacher education program, and is graded CR/NC.

### **EDUC 5060 - Effective Mentoring in the Classroom**

**Credits: (2)**

**Typically taught:**

**(TBA, as needed)**

Course covers strategies for effectively mentoring student teachers and novice teachers by expert teachers. Expectations for the course include journal keeping, writing assignments, and mentoring project.

### **EDUC 5110 - Advanced Multicultural/Bilingual Education**

**Credits: (3)**

Provides a knowledge base concerning the curricular issues and need for multicultural education, and explores various curriculum models and approaches for successful implementation of multicultural education across the curriculum.

### **EDUC 5120 - Culture and Language**

**Credits: (3)**

Examines the effects and impact of historical, political, social, and economic issues which affect teaching and learning for students from diverse cultural and ethnic groups.

### **EDUC 5320 - Reading in the Content Areas**

**Credits: (3)**

Use of reading as an effective means to help students comprehend their course material. Explores how to incorporate these skills into the curriculum of the content areas.

### **EDUC 5330 - Using Children's Literature in the Classroom**

**Credits: (2)**

This course will provide a broad basis for using children's literature for instructional purposes in elementary classrooms to enhance literacy development.

### **EDUC 5340 - Assessment and Corrective Procedures in Reading**

**Credits: (3)**

Assessment of reading problems and corrective procedures for remediation in elementary classrooms.

### **EDUC 5360 - Literacy in the Elementary School**

**Credits: (3)**

An exploration of current reading, oral and written language theories, and their applications for the improvement of literacy practices in schools.

## **EDUC 5770 - Field Experience in ESL/Bilingual Education**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will gain experience in teaching and working with ESL/bilingual students and apply what they have learned from relevant courses.

## **EDUC 5920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Consult the semester class schedule for the current offering under this number.**

The specific title and credit authorized will appear on the student transcript. Available on CR/NC basis. May be repeated up to 18 credit hours.

## **EDUC 5920G - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Consult the semester class schedule for the current offering under this number.**

The specific title and credit authorized will appear on the student transcript. Available on CR/NC basis. For graduate students. May be repeated up to 18 credit hours.

## **EET 1110 - Basic Electronics**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to the concepts and fundamentals of electronic devices, circuits and systems. An electronics overview course for technology majors. Topics include direct current electricity, alternating current electricity, transistors and integrated circuits, amplifiers and oscillators, transmitters and receivers, digital logic circuits, electronic memory, and computers. Prerequisite: Credit for or concurrent enrollment in MATH 1010 or higher.

## **EET 1130 - Digital Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to digital electronics, integrated circuits, numbering systems, Boolean algebra, gates, flip-flops, multiplexers, sequential circuits, combinational circuits, programmable logic devices, and computer architecture. Lecture and lab combination. Laboratory activities to include the design, construction, analysis, and measurement of basic digital systems. Prerequisite/Co-requisite: Prerequisite: Credit for or concurrent enrollment in MATH 1010 or equivalent or any higher math.

## **EET 1140 - DC Circuits**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to DC circuit fundamentals, analysis, theorems, laws, components, measuring devices, and equipment. The introduction and use of measuring instruments and power supplies. Lecture and lab combination. Laboratory activities to include circuit design, construction, and analysis of DC circuits. Prerequisite/Co-requisite: Prerequisite: EET 1110 and credit for or concurrent enrollment in MATH 1060 or MATH 1080 or any higher math.

## **EET 1850 - Industrial Electronics**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Industrial electronics course for Mechanical and Manufacturing Engineering Technology majors. Introduction to DC and AC circuits, machines, and power systems. Lecture and lab combination. Laboratory activities to include the design, construction, and analysis of DC/AC circuits and machinery. Prerequisite: MATH 1010 or equivalent or any higher math.

## **EET 2010 - AC Circuits**

**Credits: (3)**

The course serves as an extension of circuit analysis methods taught in EET 1140 to AC networks. The introduction of complex numbers and phasor notation at the beginning of the course is followed by AC circuit analysis techniques and the determination of the frequency response for passive AC networks. The course is a combination of lecture and laboratory formats. Laboratory activities will include the design, computer simulation, validation and analysis of passive AC networks. Prerequisite: EET 1140 and credit for MATH 1060 or MATH 1080.

## **EET 2110 - Semiconductor Circuits**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to the design and analysis of semiconductor circuits using diodes, transistors, op-amps, field effect devices, thyristors, and regulators. Lecture and lab combination. Laboratory activities to include the design, construction, computer simulation, and analysis of semiconductor circuits, amplifiers and power supplies. Prerequisite: EET 1130 , EET 1140, MATH 1060 or higher.

## **EET 2120 - Power and Motors**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to AC and DC motors, relays, transformers, power measurements, National Electrical Code, ladder logic, wiring, and programmable logic controllers (PLCs). Lecture and lab combination. Laboratory activities to include the design, construction, and analysis of basic power circuits and machinery configurations. Prerequisite: EET 1140, MATH 1060 or higher.

### **EET 2130 - PC Board Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to the design of printed circuit boards and packaging with emphasis on the design, simulation, analysis and packaging of circuits. Lecture and lab combination. Laboratory activities include the design, construction, and testing of prototype circuit boards. CAD programs will be used for the design and layout of circuit boards. Prerequisite: EET 2110.

### **EET 2140 - Communications Systems**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to digital and wireless communication circuits. Topics to include radio frequency circuits, modulation, detection, transmitters, receivers, transmission lines, antennas, and measurement instruments. Digital communications topics to include parallel and serial data transmission. Lecture and lab combination. Laboratory activities to include the design, construction, computer simulation, and analysis of communication circuits. Prerequisite: EET 2110.

### **EET 2150 - Embedded Controllers**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

A study of microprocessors, embedded controllers, operational characteristics, computer architecture, machine code programming, memory devices, and interfacing. Lecture and lab combination. Laboratory activities include the design, construction, and analysis of microprocessor based systems. Analysis techniques include the use of assemblers, cross-assemblers, and emulators. Prerequisite: Credit for or Current Enrollment in EET 2110.

### **EET 2160 - Troubleshooting**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to troubleshooting techniques and skills. Topics include the use of diagnostic electronic test equipment such as multi-meters, power supplies, signal generators, digital storage oscilloscopes, and spectrum analyzers. Students will diagnose and repair electronic circuits and systems. Lecture and laboratory combination. Prerequisite: EET 2110, EET 2120, EET 2170.

### **EET 2170 - Industrial Controls**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to industrial control systems for manufacturing and automated test applications. The course will focus on LabVIEW control systems and Programmable Logic Controllers (PLCs). Students will configure, program, and troubleshoot industrial control systems. Lecture and lab combination. Prerequisite: EET 1130, EET 1140.

## **EET 2180 - Solar PV Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is for each student to learn the fundamental knowledge and technology of solar PV (Photovoltaic) systems. This course discusses the limitation and the impacts of using fossil fuel energy and its possible impact on global climate change. Solar energy can provide a long term solution and minimize climate change. This course will enable students to build an essential foundation towards how to design the solar PV systems for various applications. The topics in this course include PV markets and applications, electricity basics, safety basics, the fundamentals of solar PV energy, PV system components, grid-tied and battery-based systems, load analysis and PV system sizing, PV system electrical and mechanical designs, National Electric Code (NEC) applied to PV systems, commissioning and decommissioning, performance analysis, maintenance and troubleshooting. Incentives, rebates and policies from federal, state and local power company will also be addressed in the class. The students will learn how to acquire professional certifications if they are interested in developing a career in solar PV industry. Prerequisite: EET 1140 or EET 1850.

## **EET 2190 - Solar PV Technical Assessments**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is to educate each student how to be a solar electric professional with demonstrated expertise in the siting, design, analysis and performance of PV systems from site specific information, analyzes customer needs and energy usage for the purpose of advising and providing customers with the most appropriate solution for their situation. Each student will also learn the fundamental knowledge and technology of solar PV (Photovoltaic) systems. The topics in this course include PV markets and applications, electricity basics, safety basics, the fundamentals of solar PV energy, PV system components and configurations, grid-tied and battery-based systems, load analysis, qualifying the customer, site analysis, conceptual PV system design, financial costs, incentives and savings, financial benefit analysis and financing, non-financial benefit analysis, performance analysis, prepare proposals, and professional sales skills. The students will learn how to acquire professional certifications if they are interested in developing a career in solar PV industry. Prerequisite: EET 1140 or EET 1850.

## **EET 3010 - Circuit Analysis**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Advanced calculus-based topics related to electronic circuit analysis, Laplace transforms, differential equations, Fourier series, Fourier transforms, and applications. Lecture and lab combination. Laboratory activities include circuit design, construction, computer simulation, and analysis. Prerequisite: EET 2110, EET 2140, Credit for or Current Enrollment in MATH 1210.

## **EET 3020 - Active Filters**

**Credits: (4)**

Continuation of Circuit Analysis, EET 3010. Topics include active and passive filters, Pole-zero analysis, stability, Bode diagrams, frequency response, and applications. Lecture and lab combination. Laboratory activities include circuit design, construction, computer simulation, and analysis. Prerequisite: EET 3010.

## **EET 3030 - FPGA and ASIC Design**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to field programmable gate arrays (FPGA) and application specific integrated circuit (ASIC) design. Lecture and lab combination. Laboratory activities to include the use of computer design tools to design, model, simulate, and program gate arrays and application specific integrated circuits. Prerequisite: EET 2150.

## **EET 3040 - Instrumentation and Measurements**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to electronic data acquisition, data analysis, error analysis, signal measurement, and automatic testing techniques. Lecture and lab combination. Laboratory activities to include the design, construction, and analysis of measurement circuits, data acquisition circuits, instrumentation devices, and automatic testing. Prerequisite: EET 2110, EET 2170.

## **EET 3050 - Assembly Language & Device Drivers**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Small computer architecture, computer I/O, graphics, assembly language fundamentals, BIOS, device drivers, advanced assembly language techniques. Lecture and lab combination. Laboratory activities to include design, simulation, computer programming, analysis, and troubleshooting. Prerequisite: EET 2150.

## **EET 3060 - Real-Time Embedded Controllers**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to real-time kernels and operating systems. Priority-based pre-emptive scheduling, intertask communication, and intertask synchronization will be studied. Other topics include priority inversions, semaphores, mutexes, context switches, rate monotonic analysis (RMA), various kernel services, finite state machines, and nested state machines. Prerequisite: EET 2150.

## **EET 3070 - Engineering Technology Research**

**Credits: (3)**

Engineering problem solving using the Internet, professional journals, and human networking. Three styles of writing emphasized; technical descriptions, historical perspectives of technology, and technical defensible arguments.

Prerequisite: AAS degree in CET or EET.

## **EET 3080 - Embedded Networks**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course provides an in-depth study of several serial communication standards and how to implement them in

embedded systems. The standards addressed in this class include RS232, RS485, Controller Area Network (CAN), and Ethernet. Emphasis will be placed on utilizing the stacks and protocols for each standard. The channel bandwidth, noise, and data error rate will be addressed. Wireless methods of serial communication will be surveyed. Prerequisite: EET 2150.

### **EET 3090 - Project Management**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

EET 3090 Project Management course is designed to prepare students for the senior capstone project. The course will include development of a contract, goal setting, time management, budgeting, project funding, project leadership and team building principles. Engineering economics, team work, quality statistics and continuous improvement will also be discussed. Other topics include project life cycles, organization and risk management. Prerequisite: EET 1110, and EET 1140, and EET 2010.

### **EET 3100 - Renewable Energy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of the EET 3100 Renewable Energy course is for each student to learn the fundamental knowledge and technology of various types of renewable energy including solar energy, wind power, hydroelectric, geothermal energy, biomass and ocean energy. This course discusses the limitations and the impacts of using fossil fuel energy and its possible impact on global climate change. This course will enable students to build an essential foundation towards the specific applications of renewable energy such as solar PV (Photovoltaic) systems, wind turbine systems and micro-hydro systems. Incentives, rebates and policies from federal, state and local power companies will also be addressed in the class. The students will learn how to acquire professional certifications if they are interested in developing a career in the area of renewable energy. Prerequisite: EET 1110 or EET 1850.

### **EET 3180 - Advanced Solar PV Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is for each student to learn the advanced knowledge and technology of solar PV (Photovoltaic) systems. This course will enable students to verify system design, manage project, install electrical and mechanical components, complete system installation, and conduct maintenance and troubleshooting. The topics in this course includes PV markets and applications, safety requirements, the advanced technology of solar PV systems, PV system components, grid-tied and battery-based systems, load analysis and PV system sizing, PV system electrical and mechanical designs, National Electric Code (NEC) applied to PV systems, commissioning and decommissioning, performance analysis, maintenance and troubleshooting, and CAD software for PV system design. Incentives, rebates and policies from federal, state and local power company will also be addressed in the class. The students will learn how to acquire professional certifications if they are interested in developing a career in solar PV industry. Prerequisite: EET 2180.

### **EET 4010 - Senior Project I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Students will work on teams to design, construct, test, and install a significant engineering project. The course includes selecting a team, selecting a project, writing a contract, maintaining a logbook, creating and following project milestones, setting and completing weekly goals, writing a manual, and making a final presentation to students, faculty, and industry advisers. Prerequisite: EET 3090.

### **EET 4020 - Senior Project II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

A continuation of EET 4010 Senior Project I. Students will work on teams to design, construct, test, and install a significant engineering project. The course includes selecting a team, selecting a project, writing a contract, maintaining a logbook, creating and following project milestones, setting and completing weekly goals, writing a manual, and making a final presentation to students, faculty, and industry advisers. Prerequisite: EET 4010.

### **EET 4030 - Controls & Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to automatic control theory, analysis, and testing, pole, zero, Bode plots, and frequency response. The design and application of programmable controllers using ladder logic, sequential functions charts, PID, and data highway. Lecture and lab combination. Laboratory activities to include computer simulation, servo-system construction, and analysis. Prerequisite: EET 3010, MATH 1210.

### **EET 4040 - Signals and Systems**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to digital signal processing, digital filters, discrete and fast Fourier transforms, quantization, introduction to adaptive filters, industrial applications, and DSP hardware. Lecture and lab combination. Laboratory activities include the design, construction, computer simulation, and analysis of digital signal processing circuits. Prerequisite: EET 3010, MATH 1210.

### **EET 4060 - Advanced Communications**

**Credits: (4)**

Introduction to satellite communications, spread spectrum techniques, digital satellite communications, antennas, small signal amplifiers, Smith charts, and "S" parameter analysis. Lecture and lab combination. Laboratory activities to include the design, construction, computer simulation and analysis of wireless communications circuits and systems.

Prerequisite: EET 3010.

### **EET 4090 - Systems Design and Integration**

**Credits: (3)**

An introduction to the fundamentals of large-scale systems. The first part deals with systems analysis, design and integration with emphasis on input/output models, transfer functions, and interface issues. The second part discusses a variety of systems design and management approaches, particularly those concerned with system requirements, interface control, evaluation, quality assurance through configuration management, audits and reviews, and the human role in systems. Prerequisite: EET 3090.

### **EET 4800 - Individual Studies**

**Credits: (1-4)**  
**Typically taught:**  
**Spring [Full Sem]**

The student will receive credit for approved studies in an area not covered in the EET program. A maximum of four credits can be counted as electives for EET majors.

### **EET 4890 - Cooperative Work Experience**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

The student will receive credit for approved electronics industrial experience. Professional development activities will include resume writing, goal setting, progress reports, and a supervisor's evaluation. The course can be taken a maximum of three times for a total of 6 credits. Prerequisite: EET 3090.

### **EET 4900 - Special Topics**

**Credits: (1-4)**  
**Typically taught:**  
**Fall [Full Sem]**

A one-time special study course designed to introduce a new relevant topic that is not covered in the EET program. Lecture and lab combination. Laboratory activities to support the selected course topic. A maximum of four credits can be counted for EET majors.

### **ENGL 0900 ND - Fundamentals of College Reading and Writing**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

A course designed to help students develop fundamental reading, writing, and thinking skills. Students in this course work closely with Skills Enhancement Center tutors in both group and one-to-one settings. Students with ACT scores in either English or Reading of 12 and below are required to take ENGL ND0900. Students without ACT scores are also placed in this course unless they are otherwise placed by Accuplacer. Students must complete this course with a grade of C or better before enrolling in ENGL 0955. ND (non-degree) do not count toward hours required for graduation.

### **ENGL 0955 ND - Developmental College Reading and Writing**

**Credits: (6)**  
**Typically taught:**  
**Fall [Full Sem, Full Sem Online]**  
**Spring [Full Sem, Full Sem Online]**  
**Summer [Full Sem, Full Sem Online]**

A course to help students develop reading, writing, and critical thinking skills prerequisite for entry-level college courses. Students in this course are supported by the Skills Enhancement Center. Students who pass ENGL 0900 with a grade of C or better, whose ACT scores in English or Reading run from 13 to 16, or who are placed by Accuplacer are placed in ENGL ND0955. Students must complete ENGL ND0955 with a grade of C or better before enrolling in ENGL 1010. ND (non-degree) do not count toward hours required for graduation.

## **ENGL 0960 ND - Developmental College Writing**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Developing fundamental reading, thinking, and writing skills. Focuses on sentence structure and essay development. ND (non-degree) do not count toward hours required for graduation.

## **ENGL 1000 - College Reading**

**Credits: (1-3)**

**Typically taught:**

**Check with Department**

The English department recommends this course as an excellent entry-level college course. Students in this course can expect to improve their reading comprehension, their critical thinking skills, their breadth and depth of knowledge, and their aptitude for learning. May be repeated 4 times up to 6 credit hours.

## **ENGL 1010 EN - Introductory College Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [1st Blk, 2nd Blk, Online]**

Students will learn practices of successful academic writing. Students will focus on the writing process, writing for specific audiences, collaboration with peers, and on the interrelationship between reading and writing. To enter 1010 the student must have 17 or higher on the ACT English portion, or equivalent. Students must complete ENGL 1010 satisfactorily (a grade of "C" or better) before enrolling in ENGL 2010.

## **ENGL 2010 EN - Intermediate College Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [1st Blk, 2nd Blk, Online]**

This course will focus on writing arguments, conducting research, and documenting sources. Students will continue to learn practices of successful academic writing including the writing process, writing for specific audiences, and collaboration with peers. Prerequisite: ENGL 1010 with "C" grade or better, AP Language and Composition or Literature and Composition examination with a score of 3 or better, ACT English and Reading score of 29 or better, CLEP with essay test with a score of 50 or better, or articulated transfer credit from another regionally accredited college or university.

## **ENGL 2100 - Technical Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Check with Department]**

This course prepares students for on-the-job writing and emphasizes the importance of audience analysis, graphics, and

document design. Students study and practice writing and designing a variety of technical documents as they learn to write clearly, concisely, and persuasively to a specific audience for a specific purpose. Prerequisite: ENGL 1010 or 2010.

### **ENGL 2120 - Introduction to Writing and Document Design**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

Through literary texts, including fiction, non-fiction and poetry as well as film and other digital mediums, this course will introduce students to the ways writing fits into various types of organizations, which are increasingly focused around knowledge work, or work that analyzes and communicates rather than manufactures products. Within the framework of writing, students will learn how organizations are networked and situated, and how collaboration, systems of power, organizational structures, and various audiences and stakeholders function.

### **ENGL 2130 - Media and Technology in Texts**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

Through the study of literary texts such as fiction, poetry, nonfiction, and film, students will gain an understanding of key concepts in the study of media and technology, including historical and forward-looking perspectives. These might include such topics as the impact of technology on society and culture, how new technologies shape information and how new media forms affect reading, writing and analysis.

### **ENGL 2140 - Introduction to Technical Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

This course focuses on basic editing in the workplace. We examine genres, electronic editing, version control, collaboration, synchronous and asynchronous writing/editing, and literature related to editing.

### **ENGL 2150 - Gender and Culture in Workplace Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

Gender and culture affect professional and technical writing and an understanding of the many roles we encounter and play through gender and culture is essential for writers. This course will overview for students the many ways gender and culture can be applied to and explored in professional and technical writing and provide practice identifying and analyzing such issues through literature.

### **ENGL 2160 - Introduction to Web-Based Technical Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

This course will first cover how organizations create and share information on the web and social media, and how the differences in reader expectation and reading behavior between printed and online texts help shape the information. The course will then focus on characteristics of good online content, analysis of audience and purpose, and strategies for writing and designing content to meet the needs and expectations of the readers. Throughout the semester, students will practice, individually and collaboratively, good writing and designing skills in learning to become effective writers of a workplace.

### **ENGL 2200 HU/DV - Introduction to Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

An introduction to three major literary genres, fiction, poetry, and drama, drawn from a diverse range of authors from various cultures and historical periods. Students will learn how to read literary texts closely and critically, and how literature--reading more generally--can have a meaningful part of their daily lives. Course includes relevant practice in the principles of successful writing, including drafting, revising, and editing.

### **ENGL 2220 HU/DV - Introduction to Fiction**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to short stories, novellas, and novels, selected from a diverse range of authors from various cultures and historical periods. Students will learn how to read fiction carefully and critically, and how fiction can have a meaningful part in their daily lives. Course includes relevant practice in the principles of successful writing, including drafting, revising, and editing.

### **ENGL 2230 HU/DV - Introduction to Drama**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

An introduction to drama from around the globe, selected from a diverse range of authors from various cultures and historical periods. Students will develop the critical and interpretive skills necessary to analyze and appreciate plays and to recognize their contemporary relevance. Course includes relevant practice in the principles of successful writing, including drafting, revising, and editing.

### **ENGL 2240 HU/DV - Introduction to Poetry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to poetry written in English, selected from a diverse range of authors from various cultures and historical periods. Students will develop the critical and interpretive skills necessary to appreciate the craft of poetry as a valid and important way of talking about human experiences. Course includes relevant practice in the principles of successful writing, including drafting, revising, and editing.

### **ENGL 2250 CA - CW: Introduction to Creative Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem online]**

**Summer [1st Blk, 2nd Blk]**

In this Gen Ed course students will learn in a workshop setting to write original pieces in three genres that may include the following: short stories, poetry, creative non-fiction, and plays. As models for their own writing, students will read exemplary pieces from each genre taught from different eras and cultures, in order to build a vocabulary base. Thus, students will become familiar with aspects of storytelling such as story arc, characterization, and dialogue; and aspects of poetry such as rhyme, rhythm, and figurative language, for use in their own writing. Through regular exercises, students will generate ideas for creating original writing such as stories, poems, plays, and creative essays, and will refine oral and communicative skills. Students will critique and be critiqued by the entire class in order to revise early drafts, will analyze selected texts, and will evaluate their own and others' work. Prerequisite: ENGL 1010 or 2010 with a "C" grade or better or equivalent.

### **ENGL 2260 CA - CW: Introduction to Writing Short Fiction**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course introduces students to writing original short fiction in a workshop setting. Students will read as models a judicious sampling of stories by authors such as Edgar Allen Poe, William Faulkner, Toni Morrison, Truman Capote, and others as selected by the professor in order to build a vocabulary for analyzing aspects of storytelling such as plot, story arc, characterization, dialogue, meaningful detail, and story pacing. Using guided writing exercises and journaling, students will develop ideas from these sources to create original fiction for a series of in-class workshops. Students will critique, and be critiqued by, the entire class, in order to revise their stories. Prerequisite: ENGL 1010 or 2010 with a "C" grade or better or equivalent.

### **ENGL 2270 CA - CW: Introduction to Writing Poetry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course introduces students to writing original poetry. Students will read as models a judicious sampling of poems by contemporary poets as selected by the professor in order to build a vocabulary for analyzing aspects of poetic craft, such as form, line, prosody, image, sound, narrative, and lyric. Using guided writing exercises and journaling, students will develop their ideas into original poems for a series of in-class writing workshops. Students will critique and be critiqued by their peers in order to revise their poems. Prerequisite: ENGL 1010 or 2010 with a "C" or better or equivalent.

### **ENGL 2510 HU/DV - Masterpieces of Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

An introduction to select masterworks, selected from a diverse range of authors from various cultures and historical periods. Students will develop the critical and interpretive skills necessary to analyze various genres (fiction, drama, and poetry) and to reflect on the nature of literary excellence. Course includes relevant practice in the principles of successful

writing, including, drafting, revising, and editing. Prerequisite: ENGL 1010 or 2010 with a "C" grade or better or equivalent.

### **ENGL 2710 HU/DV - Perspectives on Women's Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

The purpose of this class is to introduce students to the rich contributions of women to the field of literature. The course will cover a variety of women writers that may range from the medieval period to the present and will feature literary genres such as fiction, poetry, drama, non-fiction, and journals/diaries. In discussing and writing about these works, students will consider why women were excluded or marginalized in the canon for such a large part of literary history and how society, family, and politics impacted the way these women wrote. Prerequisite: ENGL 1010 or 2010 with a "C" grade or better or equivalent.

### **ENGL 2750 HU - Topics and Ideas in the Humanities**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This variable topics course focuses on topics and ideas in the humanities. The course may consider social, political, artistic, environmental, or philosophical themes across disciplines. Students will learn the critical skills necessary to identify the intellectual currents in the texts under consideration, to engage in focused discussion and to probe the various intentions of any act of writing. May be taken twice for a total of 6 credits.

### **ENGL 2830 - Directed Readings**

**Credits: (1-3)**

Prerequisite: ENGL 2010 or equivalent. May be repeated twice up to 3 credit hours.

### **ENGL 2890 - Cooperative Work Experience**

**Credits: (1-6)**

Open to all students in the English Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Prerequisite: ENGL 2010 or equivalent. May be repeated 5 times up to 6 credit hours.

### **ENGL 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: ENGL 1010 with a "C" grade or better or equivalent. May be repeated 3 times up to 4 credit hours with different topics.

### **ENGL 2920S - Community Service**

**Credits: (3)**

Students will receive an overview of community service and explore opportunities for service learning in the community. A weekly seminar with required readings and writings as necessary and 50 hours of community service. Prerequisite: ENGL 2010 or equivalent.

## **ENGL 2999 - Capstone in Workplace Communication and Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This class provides an opportunity for students to synthesize and demonstrate their learning in the Associate of Workplace Communication program. The primary purpose of this course is to help students transition from earning an associate's degree to pursuing a job and/or continued education toward a bachelor's degree. The course will include employment-related content such as interviewing skills, job shadows, career research, portfolios, resumes, and cover letters. The course will also include a section on workplace ethics to develop responsible and productive professionals. Cross-listed with COMM 2999. Prerequisite: Permission of Instructor Required.

## **ENGL 3010 - Introduction to Linguistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

This course introduces students to the scientific study of language. It looks across languages to explore what they have in common, as well as what distinguishes them from one another. Students learn basic analytic techniques in articulatory phonetics, phonology, morphology, syntax, and semantics and apply them to data drawn from various languages. These core concepts may be applied to other areas, such as language acquisition, language history, language and culture, language and society, language and thought, or language and literary expression. Prerequisite: ENGL 2010 or equivalent. Students in English, foreign languages, anthropology, philosophy, psychology, and history are encouraged to take this course.

## **ENGL 3020 - Introduction to the Study of Language for Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed for English teaching majors and minors. It introduces students to the nature of language and linguistics. It also reviews the elements of traditional grammar. This course surveys prescribed application for prospective secondary school English teachers, including language variation, contemporary alternatives to traditional grammar, and linguistics and composition. Students are required to complete a grades 7-12 school field experience. Prerequisite: ENGL 2010 or equivalent and admitted to Secondary Education program. Co-Requisite: ENGL 3400, ENGL 3410 and ENGL 3420.

## **ENGL 3030 - Structure of English**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

This course presents the major parts of speech, grammatical functions, and constructions of Standard English. Its purpose is to show that English, like any human language, is an intricate and rule-governed system. To this end, it draws on the terminology of traditional grammar and the analytical techniques of structural and transformational grammar, including contextual definitions and tree diagramming. The course is directed toward departmental English majors, teaching majors, advanced ESL students, and students majoring in foreign language teaching. Prerequisite: ENGL 2010 or equivalent.

## **ENGL 3040 - History of the English Language**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course begins by introducing the elementary vocabulary and concepts of linguistic theory as these pertain to historical linguistics. It then traces the prehistory of English from its beginnings in Indo-European, through its place in the Germanic branch, to its historical phases of Old, Middle, and Early Modern English. Attention may also be given to national varieties of English and the development of English as a world language. Prerequisite: ENGL 2010 or equivalent.

## **ENGL 3050 - Grammar, Style, and Usage for Advanced Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

This course presents the concepts and nomenclature of traditional grammar as a context for students wishing to increase their control of punctuation, style, and usage in order to become more proficient writers. Its purpose is to offer practical guidance in how grammatical concepts can be applied to revising and editing one's own or others' writing to more effectively express one's intended meaning. The course is offered to all English majors and minors as a means of fulfilling the language requirement for the major, especially those in technical writing, as well as students in communication, pre-law, and criminal justice. Prerequisite: ENGL 2010 or equivalent.

## **ENGL 3080 - Critical Approaches to Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

Students will study and practice critical approaches to literature. The course will begin with New Criticism and proceed to study more resistant reading strategies such as feminism, Marxism, and deconstruction. Students will not only learn the theoretical premises behind these theories, but also practice explicating various texts from a particular critical perspective. Primarily for English majors and minors. Recommended to take early in major. Prerequisite: ENGL 2010 or equivalent. Recommended prerequisites: ENGL 2200, ENGL 2220, ENGL 2230, or ENGL 2240.

## **ENGL 3100 - Professional and Technical Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online, Check with Department]**

This course introduces students to the basic theories and practices of technical communication. Using audience, purpose, and context as their guides, students create various professional and technical documents, such as formal and informal reports, instructions, proposals, job application materials, brochures, web media, and presentations. Working both individually, and in collaboration, students analyze their rhetorical situation as they create usable and appropriate professional documents. This course provides the practical and theoretical basis for the minor and emphasis in Professional and Technical Writing. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3140 - Professional and Technical Editing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Building on the knowledge of technical writing genres and the writing strengths developed in ENGL 3100, this course introduces students to copyediting, comprehensive editing, and the basics of collaborative editing and document management. Technical editing is designed to strengthen students' writing, editing, and visual design skills through attention to detail and application of style, grammar, and usage principles. Additionally, this course focuses on hard copy and soft copy editing principles. Co-Requisite: ENGL 3100.

### **ENGL 3190 - Document Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course teaches a rhetorical approach to document design. Using the rhetorical principles of audience, purpose, and context, students will discuss sample documents, analyze the layout of documents (both professional documents and ones students create in class), and articulate what makes an effective layout and design (regarding arrangement, emphasis, clarity, conciseness, tone, and ethos). Throughout the course, students will create (both individually and collaboratively) documents that meet client specifications thereby providing practical experience and generating material for their professional portfolios. Prerequisite: ENGL 3100.

### **ENGL 3210 - Advanced College Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Basic expository techniques combined with other forms of discourse. Emphasis on originality, clarity and practical application for other courses as well as vocation. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3240 - CW: Writing Creative Nonfiction**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will introduce students to the craft of writing creative nonfiction, including forms such as personal essay, lyric essay, and memoir. Prerequisite: Any of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

### **ENGL 3250 - CW: Advanced Fiction Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will learn advanced fiction writing skills and strategies. Whether they plan to write novels or short fiction, this class will help them develop their use of plot, character, point of view, narrative structure, setting, image, wordplay and syntax. Prerequisite: Any of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

### **ENGL 3260 - CW: Poetry Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course will write and revise their own original poetry. Using their drafts and/or published poems, they will improve their use of line and stanza breaks, imagery, sound and rhythm, poetic structure, and other techniques.

Prerequisite: Any of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

### **ENGL 3270 - Magazine Article Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

**Summer [Check with Department]**

Emphasis on writing for publication and study of the current market. Extensive feedback is provided on each assignment by teacher and class. Lecture is combined with lively class discussion. Any additional background in imaginative writing, other areas of literature, or communications such as news reporting not essential but helpful. Lecture is combined with lively class discussion. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3280 - Biographical Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

Includes autobiographical writing and is oriented strongly toward personal and familial interests. Written assignments include the personal narrative, character sketch, as told to, and conclude with a chapter or two on a projected book-length project. Extensive written and oral input on each assignment from professor and class. Strong emphasis is placed on techniques of research including interviewing, effective characterization, narration and description. Prior experience in imaginative writing and other areas of literature is recommended. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3300 - Children's Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

Students will study the principles of literature for children with special emphasis on evaluation and selection, classroom and library use, ethnic and cultural diversity, and the development of literacy. Designed to meet the needs of teachers, those preparing to teach and those who work with children in various settings. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3310 - Young Adult Literature**

**Credits: (3)**

**Typically taught:**

**Spring [Check with Department]**

Students will study the characteristics of literature for young adults and connections to adolescent development.

Selection and evaluation, ethnic and culturally diverse authors, the history of young adult literature, and book-to-film comparisons will receive special emphasis. This course is designed for non-teaching English majors, students interested in adolescent psychology or in acquiring a breadth of exposure to literature that appeals to young adult readers. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3350 - Studies in Literary Genres**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

This variable topics course introduces students to the historical and cultural origins of literary genres, their distinguishing features, and the dynamics of literary development. Genres may include the novel, drama, poetry, creative non-fiction, bildungsroman, the diary, biography, autobiography, satire, and others. It may be taken more than once with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3352 - Studies in World Literary Genres**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This variable topics course introduces students to familiar and unfamiliar genres around the world, exploring their distinctive features and their interactions with the cultures and histories they represent. Genres might include poetry and prose, fiction and non-fiction, satire and fable, tragedy and ballad, biography and autobiography, and many others. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3353 - Genres in Cultural and Media Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This variable topics course introduces students to genres in cultural and media studies, their distinguishing features, and the dynamics of their development. Genres may include the novel, digital novel, film, television, social media, advertising, music, and the internet. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3354 - Genres in Writing and Interdisciplinary Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This variable topics course introduces students to interdisciplinary genres, new directions in transcending disciplinary boundaries, or issues in writing and rhetoric. Genres may include various forms of narrative as they intersect with the

sciences, social sciences, arts and humanities, health professions, business and economics, applied science and technology, and others. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 2010 or equivalent.

**ENGL 3355 - CW: Creative Nonfiction Forms and Craft**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

This class asks students to write a number of forms within the genre of creative nonfiction writing, experimenting with narrative shape and the effects of structural choices. Prerequisite: Any one of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

**ENGL 3360 - CW: Short Story Forms and Craft**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

This class asks students to experiment with form and story structure within the genre of fiction writing, to understand how narrative shape affects the reader's experience. Prerequisite: And one of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

**ENGL 3365 - CW: Novel Forms and Craft**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

This class asks students to experiment with form and structure within the genre of novel writing to understand how narrative shape affects the reader's experience. Prerequisite: Any one of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

**ENGL 3370 - CW: Poetic Forms and Craft**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This class asks students to experiment with form and structure within the genre of poetry writing to understand how line, repetition, rhyme patterns, and shape affect the reader's experience. Prerequisite: Any one of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

**ENGL 3375 - CW: Forms and Craft of Notebooks and Journals**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This class examines the writer's notebook, reading examples and studying possibilities. Students will keep a writer's notebook inspired by those examples.

### **ENGL 3380 - CW: Screenwriting Form and Craft**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This class examines screenwriting form. Students will write their own original screenplay(s) in this form. Prerequisite: Any one of the following: ENGL 2250, ENGL 2260, or ENGL 2270.

### **ENGL 3400 - The Teaching of Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

Students will develop their own philosophies for teaching literature and language to middle, junior high, and high school students by exploring current research findings, theoretical approaches and practical strategies. This class is required of English teaching majors and minors. Students are required to complete a grades 7-12 school field experience. Prerequisite: ENGL 2010 or equivalent and admitted to Secondary Education program. Co-Requisite: ENGL 3020, ENGL 3410 and ENGL 3420.

### **ENGL 3410 - The Teaching of Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

Students will develop their own philosophies for teaching writing to middle, junior high, and high school students by exploring current research findings, theoretical approaches and practical strategies. This class is required of English teaching majors and minors. Students are required to complete a grades 7-12 school field experience. Prerequisite: ENGL 2010 or equivalent and admitted to Secondary Education program. Co-Requisite: ENGL 3020, ENGL 3400, and ENGL 3420.

### **ENGL 3420 - Teaching With Young Adult Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course introduces prospective teachers, librarians, and other educators to the use of contemporary adolescent literature across the curriculum. Multicultural and global selection, critical evaluation of the literature, issues of censorship, reader response theory, media connections, and reading/writing strategies for teaching young adult readers will receive major emphasis. This course is required of English teaching majors and minors. Students are required to complete a grades 7-12 school field experience. Prerequisite: ENGL 2010 or equivalent and admitted to Secondary Education program. Co-Requisite: ENGL 3020, ENGL 3400, and ENGL 3410.

### **ENGL 3500 HU - Introduction to Shakespeare**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This class is an introduction designed to foster a critical appreciation of the plays of Shakespeare. The class is intended for students who are fulfilling General Education credit, studying theater, or planning to teach. Students can expect to study at least one comedy, one tragedy, and one history play in this course. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3510 HU/DV - World Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with Department]**

This is a selection of masterworks from a variety of authors, regions, and eras - expressly to introduce diverse literatures other than British and American. The required readings may vary considerably from semester to semester, according to the instructors' expertise. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3520 HU - Literature of the Natural World**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

This course engages literary texts that focus on humans in relation to their natural environment. Conceived as a survey course, it attempts to delineate the various traditions of environmental concern, from the ancient past to the present, and to draw attention to the ongoing relevance of such texts. Students will learn how to read closely and carefully, and how to make such literature meaningful for their own daily lives. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3530 - The Literature of Business and Economics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course examines historical and contemporary issues in the world of business and economics through literature, film, and essays. The course will explore concepts such as private property, commodities and natural resources, wage labor, capital, public lands, and globalization. Students will investigate pertinent moral and ethical questions connected with these concepts from both historical and contemporary perspectives, such as the distribution of wealth and poverty, consumption and resource management, competition and conflict, and social (in)stability. The course is designed to improve writing skills, specifically the ability to express complex ideas from a variety of perspectives and to improve critical and creative thinking skills while stressing the importance of learning through writing.

### **ENGL 3550 - Multicultural and Ethnic Literature in America**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

A survey of intercultural literature which reflects the rich diversity inherent in the American experience. The course includes works by Native, Hispanic, Asian, and African American authors. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3580 - Regional Literature in America**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This variable topics course treats characteristic literature in various genres and themes from a designated region of the United States such as the West, South, New England, and so on. It may be taken more than once with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3610 - American Literature I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This course will introduce students to the study of American Literature from its earliest known works to those produced prior to the American Civil War. We will examine its history, major works, and literary concepts. Prerequisite: ENGL 2010.

### **ENGL 3620 - American Literature II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This course will introduce students to the study of American Literature from the American Civil War to the contemporary period. We will examine its history, major works, and literary concepts. Prerequisite: ENGL 2010.

### **ENGL 3650 - British Literature I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This course will introduce students to the study of British Literature from its earliest known works to those produced in the eighteenth century. We will examine its history, major works, and literary concepts. Prerequisite: ENGL 2010.

### **ENGL 3660 - British Literature II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

### **Summer [Check with department]**

This course will introduce students to the study of British Literature from the eighteenth century to the contemporary period. We will examine its history, major works, and literary concepts. Prerequisite: ENGL 2010.

### **ENGL 3730 - Literatures of Cultures and Places**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

This variable topics course examines literature, cultures, and nations beyond England and America. Students will be introduced to the ways in which texts are closely tied to the geographical and cultural space as well as the historical movement from which they emerge. The course may focus on a single national culture or, alternately, offer representative works from various cultures. Prerequisite: ENGL 2010 or equivalent. It may be repeated 3 times with different designations.

### **ENGL 3740 - The Literature of the Sacred**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This variable topics course studies one or more spiritual, religious, or ethical books of world-wide fame. Texts such as the Bible, the Koran, and the Bhagavad-Gita will be considered as works of literature. It may be taken more than once with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3750 HU - Topics and Ideas in Literature**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This variable topics course focuses on the various social, philosophical, and political themes emerging in literary texts. Students will learn the critical skills necessary to identify the intellectual currents in the texts under consideration, to engage in focused discussion, and to probe the various intentions of any act of writing. Prerequisite: ENGL 2010 or equivalent. It may be repeated 3 times with different designations.

### **ENGL 3752 - Topics and Ideas in World Literature and Language**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

**Summer [Check with department]**

This variable topics course focuses on the various social, philosophical, and political themes emerging in literary texts from around the world excluding British and American texts. Students will learn the critical skills necessary to identify the intellectual currents in the texts under consideration, to engage in focused discussion, and to probe the various

intentions of any act of writing. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3753 - Topics and Ideas in Cultural and Media Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This variable topics course focuses on various themes in cultural and media studies. Students will learn the critical skills necessary to identify the intellectual currents in the texts under consideration, to engage in focused discussion, and to probe the various intentions of any text. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3754 - Topics and Ideas in Writing and Interdisciplinary Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

**Summer [Check with department]**

This variable topics course focuses on themes manifest in the field of writing and in interdisciplinary studies. This course may focus on issues in writing, rhetoric, and other disciplines as they intersect with English. Students will learn the critical skills necessary to identify the intellectual currents in the texts under consideration, to engage in focused discussion, and to probe the various intentions of any text. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3820 - History of Literary Criticism**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

Starting with the works of Plato and Aristotle, students will explore rhetorical strategies and philosophical ideas that have influenced the reading of literary texts from classical times to the present. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3840 - Methods and Practice in Tutoring Writers**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

Controlled experience in tutoring student writers in all disciplines. This course is only for people who are actually employed as a tutor. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3850 - Methods and Practice in Tutoring and Mentoring ESL Students**

**Credits: (1-3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This course trains students who are native speakers of English or who are second language learners of English at native or near native levels of proficiency to work or volunteer in the ESL Program as tutors, classroom aides, mentors, and as language informants leading conversation groups. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 3880 - Philosophy and Literature**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of the interrelationships between ideas that shape the course of history and the poetry, prose, and/or drama of the periods that produce these ideas. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 4010 - Topics in Language Study**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This variable topics course explores areas of study such as advanced grammar, sociolinguistics, language and the law, linguistics and composition, linguistics and language acquisition, or linguistics and literature, among others, as determined by the instructor. A previous language course or consultation with the instructor is recommended before enrolling. It may be taken more than once with different designations. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 4100 - Issues in Professional and Technical Writing**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This variable topics course focuses on specific issues in the ever-evolving field of professional and technical writing. Recent issues include indexing, professionalization, theoretical approaches, and discipline-specific emphases such as writing in the sciences and writing for the Web. It may be taken up to four times (for a total of 12 credit hours) with different designations to fulfill electives and must be pre-approved by an advisor. Prerequisite: ENGL 3100.

### **ENGL 4110 - Content Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This class teaches the theory and application of content management. Students will learn how to evaluate content, divide content into reusable elements, label these elements, and then re-configure them into usable structures. Using the principles of single sourcing, modular writing, and structured authoring, students will map content for reuse, evaluate available authoring tools, implement state-of-the-art technologies, and develop project strategies. Prerequisite: ENGL 3100.

### **ENGL 4120 - Seminar and Practicum in Professional and Technical Writing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

### **Spring [Full Sem Online]**

This course serves as a capstone for the minor and emphasis, preparing students for immediate job placement. In the seminar, students review issues and strategies of professional and technical writing and prepare portfolios for job interviews. The practicum is based on an internship or cooperative work experience in the community, with industry, or with an on-campus organization. The internship is the most time-intensive aspect of the course. Prerequisite: ENGL 3100.

### **ENGL 4400 - Multicultural Perspectives on Literature for Young People**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

Students will study the principles of literature for young people in combination with the theories of multi-cultural education. Designed for teachers or those preparing to teach, it will address issues connected to schools, teaching strategies and pedagogy, and the selection and evaluation of materials for diverse populations. May be substituted for either ENGL 3300 or ENGL 3310 upon approval. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 4410 - Strategies and Methodology of Teaching ESL/Bilingual**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem; Odd-Numbered Years]**

This course emphasizes practical strategies and methods of teaching ESL/Bilingual in the public school systems of this country. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 4420 - English Phonology and Syntax for ESL/Bilingual Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem; Odd-Numbered Years]**

**Summer [Check with Department]**

This course provides the essential foundation for ESL/Bilingual teachers in the workings of the English language: pronunciation and spelling systems, word-forming strategies and sentence structure patterns. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 4450 - ESL/Bilingual Assessment: Theory, Methods, and Practices**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Check with Department; Even-Numbered Years]**

This course explores how to effectively evaluate and implement assessment processes for ESL/Bilingual pupils in public schools. Students will gain experience with both standardized tests and authentic assessment. Prerequisite: ENGL 2010 or equivalent.

### **ENGL 4520 - American Literature: Early and Romantic**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

### **Spring [Check with Department]**

This historical survey follows waves of European immigration and chronicles the effects of those on the American natives. The class then moves through the Revolutionary War and finishes with the relatively short but intense age of American Romanticism, which occurred in the decades just before the Civil War. The diverse writers in this period include such figures as Columbus, William Bradford, Anne Bradstreet, Benjamin Franklin, Washington Irving, Nathaniel Hawthorne, Edgar Allan Poe, Harriet Beecher Stowe, Henry David Thoreau, Frederick Douglass, Herman Melville, and Walt Whitman. Prerequisite: ENGL 3080.

### **ENGL 4530 - American Literature: Realism and Naturalism**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

**Summer [Check with Department]**

This historical survey typically runs from the Civil War to WWI - emphasizing reconstruction, laissez-faire economics, growing imperialism, and universal suffrage. The diverse writers in this survey include such figures as Mark Twain, W. D. Howells, Sarah Orne Jewett, Henry James, Kate Chopin, Booker T. Washington, W. E. B. Du Bois, Stephen Crane, Jack London, Frank Norris, Theodore Dreiser, Mary Austin, and Henry Adams. Prerequisite: ENGL 3080.

### **ENGL 4540 - American Literature: Modern**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

**Summer [Check with Department]**

This historical survey focuses on the first half of the 20th century, when the United States went through a series of profound political and social changes, such as its entry into World War I and II, Prohibition, The Red Scare, Suffrage, the advent of the mass media, and Progressivism. Drawing on a variety of genres and media (including painting and film), the course will study developments in the New Negro Renaissance, Greenwich Village bohemianism, the Provincetown Players, "high" modernism, and the Lost Generation. Representative writers of the period include: Langston Hughes, Zora Neale Hurston, Nella Larsen, Edna St. Vincent Millay, Mina Loy, Eugene O'Neill, Susan Glaspell, Ezra Pound, John Dos Passos, Amy Lowell, William Carlos Williams, Gertrude Stein, Ernest Hemingway, and e.e. cummings. Prerequisite: ENGL 3080.

### **ENGL 4550 - American Literature: Contemporary**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

This course focuses on American literature from the 1950s to the present within the context of the dramatic political and cultural changes that have shaped contemporary American culture, such as the Cold War, Vietnam, the Civil Rights movement, feminism and multiculturalism. Like its modernist predecessor, it ranges across genres and media to survey various emergent traditions and tendencies in contemporary and postmodern US letters. Representative writers of this period include: Arthur Miller, Flannery O'Connor, Elizabeth Bishop, Tillie Lerner Olsen, Ralph Ellison, James Baldwin, Allen Ginsberg, Cynthia Ozick, Amiri Baraka, Maxine Hong Kingston, Rita Dove, Toni Morrison, Thomas Pynchon, E. L. Doctorow. Prerequisite: ENGL 3080.

## **ENGL 4560 - Contemporary Literature for Creative Writers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course introduces students to the work of contemporary writers. Looking at variety of projects, including collections and individual pieces, we will examine their stylistic choices and the effects of those choices. Prerequisite: ENGL 3080.

## **ENGL 4610 - British Literature: Medieval**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This historical survey runs from the eighth century to the end of the fifteenth century - roughly from the reign of Alfred the Great to Henry VII. Some of the more recognizable works include Beowulf, The Wanderer, Geoffrey Chaucer's Canterbury Tales, early histories of King Arthur, Thomas Malory's Le Morte D'Arthur, Julian of Norwich's Showings, Everyman, and Gawain and the Green Knight. Works written in Anglo-Saxon English and northern medieval dialects will be read in modern translations. Prerequisite: ENGL 3080.

## **ENGL 4620 - British Literature: Renaissance**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

**Summer [Check with Department]**

This historical survey runs from just before the middle of the sixteenth century to just after the middle of the seventeenth - roughly from the reign of Henry VIII, through the reign of Elizabeth Tudor, to the restoration of Charles II. Some of the more recognizable figures of this study are Christopher Marlowe, John Donne, Ben Jonson, John Milton, Anne Askew, Aemilia Lanyer, Mary Wroth, and Robert Herrick. Prerequisite: ENGL 3080. (Note: this survey does not typically try to do justice to its largest figure, Shakespeare - for whom the department has established ENGL 4730: Studies in Shakespeare.)

## **ENGL 4630 - British Literature: Neoclassical and Romantic**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

This historical survey links two periods: the first has frequently been referred to as the Enlightenment of the Eighteenth Century and includes such figures as Alexander Pope, Anne Finch, Mary Montagu, Jonathan Swift, and Samuel Johnson. The second period covers the relatively short but intense age of English Romanticism - popular because of such writers as William Blake, William Wordsworth, Samuel Coleridge, Lord Byron, Mary Shelley, Percy Bysshe Shelley, Mary Wollstonecraft, Sir Walter Scott, Thomas De Quincey, and John Keats. Prerequisite: ENGL 3080.

## **ENGL 4640 - British Literature: Victorian**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

This historical survey follows the long span of Queen Victoria's life: from about 1837 when she came to the throne to 1901 when her funeral widely symbolized the passing of the age. Not merely a placid time of Victorian propriety, this era was marked by such philosophical upheavals as that which followed Darwin's *Origin of Species*. Some of the notable writers are Elizabeth Gaskell, George Eliot, Lord Alfred Tennyson, Robert Browning, Emily Bronte, Charles Dickens, Matthew Arnold, and Thomas Carlyle. This era is marked by the Industrial Revolution, Utilitarianism (Mill), the rise of science and evolution theory (Darwin), socialism (Marx and Engels); Psychology (Freud), resurgence of art (the Pre-Raphaelites), and imperialism (Kipling). Notable writers include: Carlyle, Tennyson, the Brownings, Arnold, Wilde, Dickens, the Brontes, Eliot, and Hardy. Prerequisite: ENGL 3080.

### **ENGL 4650 - British Literature: Modern**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Check with Department]**

**Summer [1st Blk]**

This historical survey focuses on the first half of the twentieth century, a time of great social change for Great Britain and Ireland that led to a rich outpouring of traditional and experimental writing. A variety of writers will be studied in this course in connection with such key developments as the critique of Empire (Joseph Conrad, E.M. Forster); the Abbey Theatre and the Irish Literary Renaissance (Lady Gregory, W.B. Yeats); World War I (Siegfried Sassoon, Vera Brittain); High Modernism (T.S. Eliot, James Joyce, D.H. Lawrence, Virginia Woolf, Katherine Mansfield); divergent poetic world-views (W.H. Auden, Dylan Thomas); and World War II, the collapse of Empire, and dystopian visions (Evelyn Waugh and George Orwell). Prerequisite: ENGL 3080.

### **ENGL 4660 - British Literature: Contemporary**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Full Sem]**

**Summer [Check with Department]**

This historical survey examines British and Anglo-Irish literature since 1950 as Britain metamorphoses from world power to an integral member of the European Community. The course asks what it means to be a "British" writer in the second half of a century increasingly multicultural in outlook. Possible focuses include post-war disillusion (William Golding); Absurdism and Postmodernism (Samuel Beckett, Tom Stoppard); neo-Romanticism (Ted Hughes, Seamus Heaney, Nuala Ni Dhomhnaill); experimentalism and magic realism (Doris Lessing, Salman Rushdie, Angela Carter); innovative historical fiction (John Fowles, A.S. Byatt); and legacies of Empire in a postcolonial world (Jean Rhys, V.S. Naipaul, Kazuo Ishiguro, Anita Desai). Prerequisite: ENGL 3080.

### **ENGL 4710 - Eminent Authors**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This variable topics course features a single author or several authors. Students may study authors such as Sir Arthur Conan Doyle, Ralph Waldo Emerson, Emily Dickinson, Walt Whitman, Virginia Woolf, or Toni Morrison, in order to gain a greater understanding of the social, cultural, and aesthetic significance of their work. Prerequisite: ENGL 3080. May be taken up to 3 times with different designations.

### **ENGL 4712 - Eminent World Authors**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

**Summer [Check with department]**

This variable topics course features a single author or several authors. Students may study global anglophone writers and/or in translation authors such as Derek Walcott, Arundhati Roy, Chinua Achebe, Gabriel García Márquez, Nadine Gordimer, Margaret Atwood, Mo Yan, Fyodor Dostoevsky, Naguib Mahfouz, and Umberto Eco in order to gain a greater understanding of the social, cultural, and aesthetic significance of their work. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 3080.

### **ENGL 4713 - Eminent Authors in Cultural and Media Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Check with department]**

This variable topics course features a single author or several authors. Students may study foundational and emerging authors in this dynamic and influential field in order to gain a greater understanding of the social, cultural, and aesthetic significance of their work. It may be taken a total of 3 times (for a maximum of 9 credits) with different designations. Prerequisite: ENGL 3080.

### **ENGL 4720 - Chaucer**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

A study of Chaucer's best loved works, using mainly close reading to investigate selections from The Canterbury Tales and minor poems. The works will be considered in the context of theories of the Middle Ages and on the nature of love, of God, of persons, and of the universe. Prerequisite: ENGL 3080.

### **ENGL 4730 - Studies in Shakespeare**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

**Summer [Check with Department]**

This class is intended for English majors and minors seeking a deeper understanding of Shakespeare's work. Students can expect to do close readings of at least five plays and to study such secondary materials as literary criticism and historical background. Prerequisite: ENGL 3080.

### **ENGL 4740 - Milton: Major Prose and Poetry**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

A comprehensive survey of the major prose and poetic works of John Milton, culminating in Paradise Lost and Samson Agonistes. Prerequisite: ENGL 3080.

### **ENGL 4750 - Classical Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

A survey of 3,000 years of intellectual and cultural advancement paralleled with the ascent of civilization from Crete to the Roman empire. The course explores the significance of myths in the process of literary development. Prerequisite: ENGL 3080.

### **ENGL 4760 - Irish Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Check with Department]**

**Spring [Check with Department]**

This course examines the distinctive temperament and outlook of both the Gaelic and Anglo-Irish traditions in such writers as Aogán Ó Rathaille, Eibhlín Dubh Ní Chonaill, Jonathan Swift, Lady Gregory, Oscar Wilde, John Millington Synge, William Butler Yeats, James Joyce, George Bernard Shaw, Samuel Beckett, Seamus Heaney, Eavan Boland, and Nuala Ni Dhomhnaill. The first portion of the course studies the body of literature from the sixth century through 1900; the remainder of the course focuses on modern and contemporary texts. Key themes to be examined, always in the larger context of Irish history as a whole, include the Irish use of words as weapons, the place of gender in Irish writing, and the intriguing nature of Irish - particularly as opposed to English - identity. Prerequisite: ENGL 3080.

### **ENGL 4801 - A&H Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **ENGL 4830 - Directed Readings**

**Credits: (1-3)**

Prerequisite: ENGL 2010 or equivalent. May be repeated twice with a maximum of 6 credit hours.

### **ENGL 4890 - Cooperative Work Experience**

**Credits: (1-6)**

A continuation of ENGL 2890 Cooperative Work Experience. Open to all students. Prerequisite: ENGL 2010 or equivalent. May be repeated 5 times with a maximum of 6 credit hours.

### **ENGL 4900 - Internships in Literary and Textual Studies**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**  
**Summer [Full Sem]**

This course allows students to receive academic credit for on-the-job learning in approved work environments and for approved projects. May be repeated for up to 6 credit hours. A maximum of 3 credit hours may be counted toward the major. Credit/No-Credit only. Prerequisite: English major with a Junior or Senior standing; ENGL 2010, ENGL 3080.

#### **ENGL 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**Fall [Check with Department]**  
**Spring [Check with Department]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: ENGL 1010 with a "C" grade or better or equivalent. May be repeated 3 times with a maximum of 4 credit hours.

#### **ENGL 4930 - Visiting Writing Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [1st Blk, 2nd Blk]**  
**Spring [1st Blk, 2nd Blk]**

In this class, students will study the art and craft of creative writing, studying under the guidance of a nationally recognized visiting writer who will instruct them on writing theory and/or provide a short writing workshop of work from each student. Credit/No Credit grading. May be repeated 3 times up to 4 credit hours.

#### **ENGL 4940 - CW: Senior Project**

**Credits: (3)**  
**Typically taught:**  
**Fall [Check with department]**  
**Spring [Full Sem]**

This course offers an opportunity for students to choose a writing project and workshop it with their peers under the direction of the instructor. Writing skills will be developed and honed through intensive writing projects which could include a variety of genres: nonfiction, creative nonfiction, fiction, (short story collection, novel), biography, autobiography, poetry, etc. The course is designed for students with a strong writing background. Prerequisite: any of the following: ENGL 3250, ENGL 3260, ENGL 3270, ENGL 3280, ENGL 3350.

#### **ENGL 4960 - Metaphor: Editing the Student Literary Journal**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Designed for students selected as staff for Weber State's Literary Journal, Metaphor. Therefore, it is a hands-on workshop centering on all aspects of journal production: creating an editorial policy, advertisement, selection, layout, copy editing, preparing for print, marketing, distribution, etc. The journal itself is the final product. The staff supports writing and visual arts across campus through participation in several ancillary projects. Prerequisite: ENGL 2010 or equivalent. May be repeated twice with a maximum of 6 credit hours.

## **ENGR 1000 - Introduction to Engineering**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to engineering for students in the pre-engineering program. Engineering as a profession and career opportunities. Fundamentals of engineering design and analysis using the computer. Prerequisite/Co-requisite: MATH 1060 or MATH 1080 or equivalent.

## **ENGR 2010 - Statics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Vector mechanics, force and moment systems, equilibrium of particles and rigid bodies, friction and moments of inertia. Prerequisite: MATH 1210 and PHYS 2210.

## **ENGR 2080 - Dynamics**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Fundamentals of position, velocity and acceleration. Kinematics and kinetics of particles. Newton's laws, conservation of momentum and energy. Dynamics of rigid bodies. Prerequisite: ENGR 2010 with a grade of "C" or higher.

## **ENGR 2140 - Mechanics of Materials**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Fundamentals of stress and strain, Hooke's law, torsion, bending of beams, combined stresses and design of members. Prerequisite: ENGR 2010 with a grade of "C" or higher.

## **ENGR 2160 - Materials Science and Engineering**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Combined lecture/laboratory course that introduces the fundamentals of atomic and microscopic structure of metals, polymers, ceramics and composite materials, and how these structures affect mechanical, thermal, electrical and optical properties. Prerequisite: CHEM 1210. Co-Requisite: ENGR 2140.

## **ENGR 2210 - Electrical Engineering for Non-majors**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Combined lecture/laboratory course as an introduction to electrical engineering for non-electrical engineers. Fundamentals of DC and AC circuits, digital circuits, and power circuits. Prerequisite: MATH 1210.

## **ENGR 2300 - Thermodynamics I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Thermodynamic properties, equations of state, first and second laws of thermodynamics. Analysis of open and closed systems, availability and irreversibility, power and refrigeration cycles. Prerequisite: MATH 1210 and PHYS 2210.

## **ENGR 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours.

## **ENTR 1001 - Principles of Entrepreneurship**

**Credits: (1)**

**Typically taught:**

**Not currently being offered**

This course explores the process and theory designed to help ideation become customer needs driven to buffer against startup failure. By the end of the course, students will have created, tested and updated a business model based entirely upon customer feedback and customer development methodologies as described in Business Model Generation and Start-up Owner's Manual textbooks.

## **ENTR 1002 - Introduction to Entrepreneurship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will present a broad overview of entrepreneurship and teach students how to identify and create valuable entrepreneurial opportunities. This is accomplished via proven process and theory designed to help ideation become customer needs driven instead of based on the instincts of the entrepreneur. Students will create, test and update a business model based entirely upon customer feedback and customer development methodologies as described in Business Model Generation and Startup Owners Manual textbooks. This class will also have students spending time 'out of the classroom' - learning about what customers want and will pay for through in-person prototype testing, iteration and feedback. Prerequisite/Co-requisite: Prerequisite/Corequisite: BSAD 1010 or ACTG 2010 or ENTR 1001.

## **ENTR 1003 - Ideation and Customer Development: Testing Ideas with Customers**

**Credits: (1.5)**

**Typically taught:**

**Not currently being offered**

This course explores the process and theory designed to help ideation become customer needs driven to buffer against startup failure. By the end of the course, students will have created, tested and updated a business model based entirely upon customer feedback and customer development methodologies as described in Business Model Generation and Start-up Owner's Manual textbooks. Prerequisite: ENTR 1001, BSAD 2899 or ECON 2899.

### **ENTR 1004 - Entrepreneurial Finance: Bootstrapping, Accounting & Survival Tactics**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

This course presents traditional and non-traditional financing techniques appropriate for the entrepreneurial business start-up. Students will explore the application of corporate finance tools to new venture and private equity transactions including forecast simulations and the application of real options. The course will view finance from the entrepreneur, lender and investor's perspectives. By the end of the course students will be able to evaluate and apply a range of financial techniques for business start-up purposes. Prerequisite: ENTR 1002.

### **ENTR 2001 - Sales and Marketing: Scaling a Successful Business Model**

**Credits: (3)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

This course takes students who have successfully identified a start-up and teaches them the process of customer development, product development, business models and selling ideas to investors and customers. This includes examining a range of marketing techniques that are available for low to no cost. This course will look at alternatives to these traditional methods and students will, through hands on efforts, test these methods with real customers. By the end of the course students will be able to analyze business ideas for commercial viability. Prerequisite: ENTR 1004.

### **ENTR 3002 - Starting the Business**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The aim of this course is for students to develop a business model that they will validate and iterate via paying and participating customers including managing budgets and spending plans designed to launch a business using actual dollars. Student teams will present their company at the beginning of the course as teams and will then use student start-up funds to launch their business. By the end of the course students will have launched a real start up business. Prerequisite: ENTR 2001.

### **ENTR 3003 - Growing the Business**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course helps students take their start-ups business to the next level and accelerate the pace of customer validation and acquisition. This course will focus on launching the business from a student run start-up in a university setting, to a standalone company that can operate outside the confines of a college campus. Prerequisite: ENTR 3002.

## **ENTR 4680 - Small Business Diagnostics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Diagnostic analysis of small business issues through the use of case studies and consultation opportunities with small businesses in the community. Students will work both individually and in teams to analyze the health of sample small businesses, identify issues and develop recommendations for remediation. Case issues will cover a broad spectrum of typical small business issues and require the student to evaluate based on all areas of business operations. Research, written reports and presentations are required. Cross-listed with BSAD 4680. Prerequisite: ENTR 2001 or BSAD 2899 and instructor approval.

## **ESL 0010 - Writing Level I**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Students receive instruction and practice writing English on the letter, word and phrase level. Writing by hand using the Roman alphabet is practiced. Students gain an understanding of elementary grammatical structures through practical application in conversation, reading and writing. Basic vocabulary development is stressed.

## **ESL 0015 - Writing Level II**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Students continue to receive instruction and practice writing English on the letter, word and phrase level, and simple sentences are introduced. Handwriting is reinforced and practiced. Students expand their understanding of elementary grammatical structures through practical application in conversation, reading, and writing. Vocabulary development is stressed.

## **ESL 0020 - Reading Level I**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

This course enables students to interpret language written in the Roman alphabetic system and build a foundation of basic vocabulary through reading simple text.

## **ESL 0025 - Reading Level II**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Students in this course expand their vocabulary and interpretation skills by reading short paragraphs of simple text.

## **ESL 0030 - Speaking and Listening Level I**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Students in this course learn to understand and produce short spoken utterances referring to basic personal information and the immediate environment. Vocabulary-building of essential terms is strongly emphasized.

## **ESL 0035 - Speaking and Listening Level II**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course facilitates students' abilities to engage in basic communicative exchanges involving familiar topics such as personal background and needs, social conventions and routine tasks. There is a strong emphasis on vocabulary building.

## **ESL 0040 - Grammar Level I**

**Credits: 2**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

This course introduces entry-level students with no or almost no English to elementary grammar structures using an integrated communicative approach.

## **ESL 0045 - Grammar Level II**

**Credits: 2**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course continues to build an understanding of elementary grammar structures for students with minimal English using an integrated communicative approach.

### **ESL 0050 - Pronunciation Level I**

**Credits: 1**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Students learn the English sound system through spoken, written and reading exercises incorporating consonants, vowels, and consonant clusters in their most common pronunciations. Concurrent vocabulary-building is emphasized.

### **ESL 0055 - Pronunciation Level II**

**Credits: 1**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Students continue to learn the English language sound system through spoken, written and reading exercises incorporating consonants, vowels and consonant clusters in their most common pronunciations. Concurrent vocabulary-building is emphasized.

### **ESL 0060 - Reading Enrichment**

**Credits: (1)**

This reading course offers additional reading practice for Novice-low English language learners. The course focuses on enlarging vocabulary and reinforcing basic sentence structures in English. Credit/no credit.

### **ESL 0065 - Reading Enrichment**

**Credits: (1)**

This course offers additional reading practice for Novice-mid English language learners. Students expand their vocabulary and reading skills with high interest books adapted for this level. Credit/no credit.

### **ESL 0110 - Writing Level III**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Students are introduced to writing simple paragraphs on familiar topics with instruction in basic punctuation as well as basic verb tense. Instruction includes joining sentences and making comparisons. Students continue to develop vocabulary and skills in basic grammar.

### **ESL 0120 - Reading Level III**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

While focusing on reading and vocabulary, this course enables students to apply basic reading strategies to short texts about non-academic topics to help novice level students increase their English proficiency.

### **ESL 0130 - Speaking and Listening Level III**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

The course is designed for the student to develop the ability to sustain basic conversations about common topics and exchanges encountered in and out of class. Course work includes introductory work in speaking, listening, and pronunciation.

### **ESL 0141 - Grammar Level III**

**Credits: (2)**

**Typically taught:**

**Full [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

This course is a basic English grammar course structured around the simple present, present progressive, expressions of past time, nouns and pronouns. Basic sentence patterns using the verb "to be" and "to have" are emphasized. Grammar is integrated into writing exercises and speaking practice.

### **ESL 0150 - Pronunciation Level III**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

This course familiarizes students with the consonant and vowel sounds used in spoken English.

### **ESL 0160 - Reading Enrichment**

**Credits: (1)**

This course offers additional reading practice for Novice-high/Intermediate-low English language learners. Students expand their vocabulary and reading skills with high interest books adapted for this level. Credit/no credit.

### **ESL 1210 - Writing Level IV**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Paragraph writing is introduced with topic sentences, supporting details, and concluding sentences. Students expand paragraph length with a variety of non-academic topics and methods of development such as narration and description. Sentence writing and vocabulary building are also emphasized. Students continue to develop their keyboarding skills as well as grammatical skills and usage.

### **ESL 1220 - Reading Level IV**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

While focusing on reading and vocabulary, this course enables students to further develop their ability to apply reading strategies to semi-academic topics.

### **ESL 1230 - Speaking and Listening Level IV**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course is designed for students of English who are increasing the use of their new language to work, study, socialize, and overcome communication barriers. At this level, students gain facility in oral communication over a greater variety of personal and academic topics.

### **ESL 1241 - Grammar Level IV**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course builds on skills learned in Grammar Foundations I (ESL 0141). Present perfect and present perfect progressive tenses are introduced. Students begin to work with adjective clauses and the use of modals is expanded. Students are challenged to develop skills in recognizing and correcting grammar errors in written material.

### **ESL 1250 - Pronunciation Level IV**

**Credits: (1)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course familiarizes students with rhythm, intonation, emphasis, and phrasing in spoken English.

### **ESL 1260 - Reading Enrichment**

**Credits: (1)**

This course offers additional reading practice for Intermediate-mid English language learners. Students expand their vocabulary and reading skills with high interest books adapted for this level. Credit/no credit.

### **ESL 2310 - Writing Level V**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**  
**Summer [1st Blk]**

Paragraph writing is reviewed. The five paragraph essay model is introduced with simple introduction and conclusion paragraphs and adequately developed body paragraphs. Topics are generally experiential. Students continue to develop their language skills with grammar, punctuation, and vocabulary as they progress to becoming independent writers.

### **ESL 2320 - Reading Level V**

**Credits: (2)**  
**Typically taught:**  
**Fall [1st Blk]**  
**Spring [1st Blk]**  
**Summer [1st Blk]**

This course will help students increase their English proficiency and vocabulary through application of reading skills and strategies to modified academic texts.

### **ESL 2330 - Speaking and Listening Level V**

**Credits: (2)**  
**Typically taught:**  
**Fall [1st Blk]**  
**Spring [1st Blk]**  
**Summer [1st Blk]**

This course is for more advanced learners of English to develop abilities in speaking about a variety of topics for an extended period of time, and understanding and participating in classroom lectures and small-group discussions. Course work includes effective note-taking, vocabulary, and discussion strategies.

### **ESL 2341 - Grammar Level V**

**Credits: (2)**  
**Typically taught:**  
**Fall [1st Blk]**  
**Spring [1st Blk]**  
**Summer [1st Blk]**

This course is an in-depth study of the usage and meaning of more advanced English grammar structures including the past and future perfect, active and passive verbs, and noun clauses.

### **ESL 2351 - Community Level V**

**Credits: (1)**  
**Typically taught:**  
**Fall [1st Blk]**  
**Spring [1st Blk]**  
**Summer [1st Blk]**

Students will expand their communication skills in English and increase their understanding of American Culture. Students will meet 1 hour per week in class with an instructor and spend 3 hours per week volunteering for a community organization. Students will receive Community Engaged Learning credit for their volunteer activity in this class.

### **ESL 2360 - Reading Enrichment**

**Credits: (1)**

This course offers additional reading practice for Intermediate-high English language learners. Students expand their vocabulary and reading skills with high interest books adapted for this level. Credit/no credit.

### **ESL 2410 - Writing Level VI**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Students write two-and-a half page essays on academic topics and continue to develop paragraph writing. Paraphrasing, summarizing, and analyzing are important skills that students practice. Students continue to develop their language skills. Students learn to use teacher conferencing and writing center tutoring to help them in editing and revising their written work. Students are introduced to writing responses and opinions and expressing their insights into the topics.

### **ESL 2420 - Reading Level VI**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course focuses on academic topics. Students increase their English proficiency and vocabulary through an integrated skills approach. Reading texts are only slightly ESL adapted.

### **ESL 2430 - Speaking and Listening Level VI**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course focuses on English language learners' abilities in expressing, supporting, and defending opinions. A variety of semi-academic and academic topics are presented at an increasingly authentic, unsimplified language level.

### **ESL 2441 - Grammar Level VI**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

This course is an in-depth study of the usage and meaning of advanced English grammar structures including usage and meaning of infinitives and gerunds, conditionals, and adverb clauses.

## **ESL 2451 - Community Level VI**

**Credits: (1)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Students continue to expand their communication skills in English and increase their understanding of American Culture. Students will meet 1 hour per week in class with an instructor and spend 3 hours per week volunteering for a community organization. Students will receive Community Engaged Learning credit for their volunteer activity in this class.

## **ESL 2460 - Reading Enrichment**

**Credits: (1)**

This course offers additional reading practice for Advanced English language learners. Students expand their vocabulary and reading skills with high interest books adapted for this level. Credit/no credit.

## **ESL 2750 - Special Projects and Activities for Language Learning**

**Credits: (1-3)**

**Variable Title.**

Special projects are designed to offer a variety of language and cultural experiences for the ESL student. Activities offered may include trips, special interest seminars, independent study or workshops. Contact the LEAP Department for programs offered.

## **ESS 2200 - Exploring Exercise Science Professions**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Designed to orient and acquaint students with the goals, objectives, scope, professional preparation, career opportunities, and trends in human performance management professions.

## **ESS 2300 - Health/Fitness Evaluation and Exercise Prescription**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Skills and competencies for prospective health fitness instructors, personal fitness trainers, and nutrition educators to deliver preventive exercise programs. Prerequisite: HLTH 1030 and NUTR 1020.

### **ESS 2890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students in Human Performance Management and Physical Education who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. May be repeated 5 times up to 6 credit hours.

### **ESS 3450 - Structural Kinesiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course is a detailed study of muscles, nerves, bones, and joints as they are involved in the science of movement. It is designed for students to experience theoretical concepts and apply functional anatomy knowledge to the execution and improvement of human performance. Prerequisite: HTHS 1110 and Co-requisite: HTHS 1111, or Prerequisite: ZOOL 2100.

### **ESS 3500 - Biomechanics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the musculomechanical bases of human movement and experience in applying that knowledge to the execution and evaluation of human performance. Prerequisite: ESS 3450 and MATH 1050 QL or higher.

### **ESS 3510 - Exercise Physiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of various physiological and environmental factors which affect performance of exercise and sport during acute exercise and physiological adaptations to chronic exercise. Prerequisite: HTHS 1110 or ZOOL 1020 or ZOOL 2200.

### **ESS 3540 - Physiological Aspects of Human Performance**

**Credits: (2)**

Examine, evaluate, and apply the latest physiological concepts and ideas in conditioning practices for improving human performance. Prerequisite: PEP 2000 or ESS 2200 and 3 hours of General Education Life Science (LS).

### **ESS 3600 - Measurement and Statistics in Exercise Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

### **Spring [Full Sem]**

The selection, administration, and interpretation of measurement techniques and statistical procedures for the purpose of evaluation and research as related to exercise science and health promotion. Prerequisite: Meet WSU Quantitative Literacy requirement.

### **ESS 4370 - Clinical Exercise Physiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides a comprehensive look at the clinical aspects of exercise physiology by thoroughly examining the relationship between exercise and chronic disease. It provides students with fundamental knowledge of disease-specific pathology and treatment guidelines. Overview of each condition's unique physiology, effects of the condition on the exercise response, effects of exercise training on the condition, and recommendations for exercise testing and programming are presented in a selected topics format. Prerequisite: ESS 2300 and ESS 3510.

### **ESS 4620 - Leadership Concepts for Human Performance Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will study the current philosophical leadership concepts and the principles, practices, and issues of administration. Prerequisite: ESS 2200.

### **ESS 4890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A continuation of ESS 2890. May be repeated 5 times up to 6 credit hours.

### **ESS 4990 - Senior Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

For Seniors only. Structured seminar focuses on synthesis of ideas and portfolio preparation.

### **ESS 6300 - Advanced Biomechanics**

**Credits: (3)**

**Typically taught:**

**Check with Department**

Designed to expose the graduate student to appropriate research in sports biomechanics and to be involved in the

analysis of movement based on selected mechanical principles such as balance, buoyancy, leverage, force, angles of rebound, projection and motion.

### **ESS 6400 - Advanced Exercise Physiology**

**Credits: (3)**

**Typically taught:**

**Check with Department**

Understanding the physiological changes associated with exercise and training and the reasons for change are the paramount directives of this course. Concurrent with the lecture component is the practicum laboratory experience of equipment operation and individual assessment of physiological parameters.

### **ESS 6540 - Physiological Aspects of Human Performance**

**Credits: (2)**

**Typically taught:**

**Check with Department**

Examine, evaluate, and apply the latest physiological concepts and ideas in conditioning practices for improving human performance. Prerequisite: PEP 2000 or ESS 2200 and 3 hours of General Education Life Science (LS).

### **ETC 2001 SS - Engineering Culture**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Engineering Culture describes the culture of engineering and the social and scientific practices as well as beliefs that engineers ascribe to in pursuing their profession. It also describes how culture is shaped by engineering and by the technologies that engineers make and maintain. This course examines the professional cultures that engineers inhabit as well as the way that a wider culture is shaped by engineering.

### **ETM 5913G - Six Sigma Tools I**

**Credits: (3)**

This distance learning course provides an introduction to the six sigma body of knowledge as defined by the American Society of Quality (ASQ). The course will examine the foundations of six sigma and the statistical tools used in the initial stages of the DMAIC problem solving methodology. Prerequisite: BS with three years relevant experience & an engineering statistics undergraduate course or equivalent such as MATH 3410 is required, or instructor's approval. Students also must be able to work on an approved six sigma project at a firm.

### **ETM 5923G - Six Sigma Tools II**

**Credits: (3)**

This distance learning course is a follow-on to the initial six sigma course and provides additional detail on the analyze,

improve and control portions of the DMAIC problem solving methodology. This course is required for the Institutional Certificate in Quality and Lean Manufacturing, and can be used as a technical elective for the Oklahoma State University Engineering Technology Management Master's Degree. Prerequisite: ETM 5913G, Six Sigma Tools I.

### **ETM 5933G - Lean Tools**

#### **Credits: (3)**

This course teaches students lean manufacturing tools for continuous improvement in a manufacturing environment. Prerequisite: BS with three years relevant experience & an engineering statistics undergraduate course or equivalent such as Math 3410 is required, or instructor's approval. Students also must be able to work on an approved six sigma project at a firm. This distance learning course is required for the Institutional Certificate in Quality and Lean Manufacturing, and can be used as a technical elective for the Oklahoma State University Engineering Technology Management Master's Degree.

### **ETM 5943G - Lean-Sigma Implementation**

#### **Credits: (3)**

This course introduces students to the implementation skills necessary to successfully combine and apply lean manufacturing and six sigma concepts in small to mid-sized manufacturing facilities. This course is required for the Institutional Certificate in Quality and Lean Manufacturing, and can be used as a technical elective for the Oklahoma State University Engineering Technology Management Master's Degree. Prerequisite: ETM 5923G, ETM 5933G.

### **FIN 1010 - Personal Finance**

#### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Personal and family budgeting, installment buying, borrowing money, buying a home, life and property insurance, personal investment, and retirement and estate planning.

### **FIN 2300 - Introduction to Investments**

#### **Credits: (3)**

**Typically taught:**

**Not currently being offered**

A study of investment opportunities, mechanics, analysis, risk, and risk management at the introductory level. This course is designed for non-finance majors and will not be accepted as a substitute for FIN 3300.

### **FIN 3200 - Financial Management**

#### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Financial analysis, planning and control, working capital management, capital budgeting, and short-term and long-term financing. Student use of computers is required for the preparation of case study material used to enhance the presentation of selected topics presented in the course. Prerequisite: ACTG 2010, ECON 2010, MIS 2010, and QUAN 2600.

### **FIN 3300 - Investments**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth study of principles, concepts, and tools used in the investment field as they relate to investment opportunities, mechanics, financial statement analysis, risk, and portfolio management. Computer use is required to access the Dow-Jones market analyzer investment software and in the preparation and analysis of investment portfolios. Prerequisite: BSAD 2899, FIN 3200, and QUAN 3610.

### **FIN 3350 - Financial Institutions**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

A study of the functions and significance of the major financial institutions, such as commercial savings institutions, with an emphasis on management problems, regulations, credit appraisal, and loan types. Prerequisite: BSAD 2899, FIN 3200.

### **FIN 3400 - Real Estate Principles and Practices**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem Online]**

Fundamental economic aspects of real estate with emphasis on realty as a commodity of trade. The subject matter in this course is of general interest to both those desiring to enter the real estate profession and those who only intend to own real estate. Prerequisite: FIN 3200.

### **FIN 3500 - Capital Budgeting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Capital investment decision-making procedures relative to make/ buy, lease/buy, working capital, replacements, and new investment decisions. Involves use of the computer in the analysis of cash flows and capital acquisition alternatives. Prerequisite: BSAD 2899, FIN 3200.

### **FIN 4400 - Financial Problems - Corporate Finance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Problems in financial management with an emphasis on corporate finance. Use of financial software and computers is an integral part of problem solutions. Prerequisite: BSAD 2899, FIN 3200, and QUAN 3610.

**FIN 4410 - Financial Problems - Investments**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Problems in financial management with an emphasis on investments. Use of financial software and computers is an integral part of problem solutions. Prerequisite: BSAD 2899, FIN 3300.

**FIN 4800 - Independent Research**

**Credits: (1-3)**

Directed research and study on an individual basis. May be repeated until a total of 4 hours credit is accumulated. Prerequisite: BSAD 2899; Senior Standing; Written Instructor Approval.

**FIN 4850 - Finance Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore financial theory and practice in countries other than the U.S. Students will study international finance as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. May be repeated once up to 6 credits.

**FIN 4860 - Finance Internship**

**Credits: (3)**

A structured professional-level field experience. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through finance courses. Prerequisite: BSAD 2899; Senior Standing; Instructor approval.

**FIN 4900 - Special Topics in Finance**

**Credits: (4)**

Special treatment of current topics in Finance. This course will involve primary and/or secondary research by class participants. Prerequisite: BSAD 2899, FIN 3200; Instructor approval.

**FL 1000 - Proficiency Development**

**Credits: (1-2)**

**Typically taught:**

**Not currently offered**

(N=Novice) (Cr/NCr) Non-graded courses for entry-level students to augment foreign language instruction in stress-free activities such as reading children's literature, learning and performing skits, folk dancing, singing, cooking, etc. May be repeated for credit under different titles.

## **FL 1010 - First Semester**

**Credits: (3)**

**Typically taught:**

**ASL Fall, Summer [Full Sem]**

**CHNS, FRCH, GRMN, ITLN, JPNS Fall [Full Sem]**

**SPAN Fall [Full Sem]**

(N=Novice) Introductory course assuming no significant previous experience with the language. Beginners and students with less than two years of high school language should register for this class. Emphasis on everyday conversation and exposure to cultural perspectives.

## **FL 1020 - Second Semester**

**Credits: (3)**

**Typically taught:**

**ASL Spring, Summer [Full Sem]**

**CHNS, FRCH, GRMN, ITLN, JPNS Fall, Spring, Summer [Full Sem]**

(N=Novice) Continuation of FL 1010. Basic language skills including listening, speaking, reading, writing and culture.

## **FL 1700 - Conversational Skills for Specific Purposes**

**Credits: (1-3)**

**Typically taught:**

**Not currently offered**

(N=Novice) Specific vocabulary and speaking skills in one semester (e.g., nursing, law enforcement, medical, tourism, family language courses, etc.). May be repeated for credit under different titles.

## **FL 1852 - Study Abroad**

**Credits: (1-3)**

**Typically taught:**

**Check with department**

(N=Novice) Language and culture studies for students with no previous experience in the target language and culture. Most assignments are performed in English. Prior travel experience does not apply. May be repeated twice with a maximum of 3 credit hours.

## **FL 2000 - Proficiency Development**

**Credits: (1-2)**

**Typically taught:**

**Not currently offered**

(NH=Novice High) (CR/NC) Non-graded courses for second-year students to augment foreign language instruction in stress-free activities appropriate to the linguistic level of second-year students. May be repeated under different titles.

## **FL 2010 - Third Semester**

**Credits: (3)**

**Typically taught:**

**ASL Fall, Summer [Full Sem]**

**CHNS, FRCH, GRMN, ITLN, JPNS Fall [Full Sem]**

**SPAN Fall, Spring, Summer [Full Sem]**

(NH=Novice High) Continuation of FL 1020. Assumes completion of first-year or equivalent experience. Students learn to understand and express ideas about their community and the world. Includes listening, speaking, reading, writing and culture.

#### **FL 2020 HU - Fourth Semester**

**Credits: (3)**

**Typically taught:**

**ASL Spring, Summer [Full Sem]**

**CHNS, FRCH, GRMN, ITLN, JPNS Spring [Full Sem]**

**SPAN Fall, Spring, Summer [Full Sem]**

(NH=Novice High) Continuation of FL 2010. The learning and application of strategies for acquiring a foreign language. Students also learn how cultural products and practices reflect a culture's attitudes, values, ideas and meaning. The process of language acquisition and the seeking of cross-cultural understanding provide insights into the commonalities of how the human family learns, thinks and communicates.

#### **FL 2021 - Second Year II**

**Credits: (3)**

**Typically taught:**

**Only available through testing**

(NH=Novice High) Continuation of FL 2010 without General Education Humanities credit. Offered through examination only.

#### **FL 2030 - Second Year Language Review**

**Credits: (3)**

**Typically taught:**

**Check with department**

(NH=Novice High) This course will prepare students who wish to continue language study. Emphasis on conversational skills and a review of language structure and usage.

#### **FL 2600 HU - Introduction to Cultural and Literary Studies in Translation**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

May be offered under any of the languages taught in the department. All Foreign Language HU2600 courses are taught in English and all texts are read in English translation in order to make some of the literature we normally would teach in a foreign language accessible to all students. These courses may introduce students to specific literary periods, literary themes or some prominent authors in specific areas of the world where languages other than English are spoken. May be repeated up to 10 times for credit under different titles.

#### **FL 2851 HU - Study Abroad**

**Credits: (3)**

**Typically taught:**

**Check with department**

(NH=Novice High) Language and culture studies for students whose minimal proficiency is Novice High. Language

assignments at the Novice or Intermediate-Low levels are performed in the target language. All other assignments are performed in English. Prior travel experience does not apply.

### **FL 2852 - Study Abroad**

**Credits: (1-3)**

**Typically taught:**

**Check with department**

(NH=Novice High) Language and culture studies for students whose minimal proficiency is at Novice High. Language assignments at the Novice or Intermediate-Low levels are performed in the target language. All other assignments are performed in English. Prior travel experience does not apply. May be repeated twice with a maximum of 3 credit hours.

### **FL 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **FL 3000 - Proficiency Development**

**Credits: (3)**

**Typically taught:**

**ASL, CHNS, FRCH, GRMN, JPNS Check with department**

**SPAN Fall, Spring [Full Sem]**

(IL=Intermediate Low) This is a transition course to upper division. The course focuses on oral proficiency development. Students will learn a variety of techniques and strategies to increase their oral proficiency in a variety of social, educational and cultural settings. Native-speaking students or those who have acquired proficiency through residence in the target language community are not eligible to take this class.

### **FL 3060 - Grammar & Composition**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall, Spring, Summer [Full Sem]**

(IL=Intermediate Low) Required of all majors and minors. Readings to develop conversation, composition and grammar skills. One sheltered section may be offered to students who have not had extensive in-country experience.

### **FL 3116 - DLI Bridge Course I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Taught in DLI High Schools for students who have passed the AP Exam with a 4 or higher (3 or higher for Chinese). Although this is a three credit-hour class, it will meet over the course of a full academic year. Credit will count toward a major or minor in the language. Prerequisite: FL 2020 or AP exam with a score of 4 or better (3 or better for Chinese).

### **FL 3117 - DLI Bridge Course II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Taught in DLI High Schools for students who have passed the AP Exam with a 4 or higher (3 or higher in Chinese). Although this is a three credit-hour class, it will meet over the course of a full academic year. Credit will count toward a major or minor in the language. Prerequisite: FL 2020 or AP exam with a score of 4 or better (3 or better for Chinese).

### **FL 3118 - DLI Bridge Course III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Taught in DLI High Schools for students who have passed the AP Exam with a 4 or higher (3 or higher for Chinese). Although this is a three credit-hour class, it will meet over the course of a full academic year. Credit will count toward a major or minor in the language. Prerequisite: FL 2020 or AP exam with a score of 4 or better (3 or better for Chinese).

### **FL 3160 - Introduction to Literature**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall, Spring, Summer [Full Sem]**

(IL=Intermediate Low) Required of all majors and minors. 3160 may be taken concurrently with other literature courses. One sheltered section may be offered to students who have not had extensive in-country experience.

### **FL 3220 - Phonetics and Phonology**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall, Spring [Full Sem]**

(IL=Intermediate Low) Analysis of the sounds of language and word formation: practice of native like speech patterns. Required of all teaching majors and minors.

### **FL 3270 - Special Topics in Linguistics**

**Credits: (3)**

**Typically taught:**

**Check with department**

(IM=Intermediate Mid) An introduction to linguistic structures and semantic elements. The course provides useful information and practice in the language, its structures and usage. The sub-disciplines of linguistics, other than phonetics and phonology (covered in FL 3220), will be studied. These may include lexical analysis, semantics, morphology, syntax, linguistic change and dialectal variation.

### **FL 3320 - Applied Language Studies**

**Credits: (1-3)**

**Variable Title**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall, Spring [Full Sem]**

(Minimal proficiency level varies with content). May be repeated up to 10 times under different titles.

### **FL 3360 - Advanced Grammar**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department  
SPAN Fall, Spring [Full Sem]**

(IL=Intermediate Low) Analysis and application of syntactic principles and discourse structure.

### **FL 3540 - Latin American Environment and Cultures**

**Credits: (3)**

In order to provide an interdisciplinary introduction to Latin America, this course presents the region's history, its peoples, their culture and their political and natural environments. Other content to be discussed includes issues of migration, US Latinos and the region's relationship with the US.

### **FL 3550 - Cultural Heritage I**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Fall [Full Sem]**

(IM=Intermediate Med) Studies in culture, history, geography, social customs, fine arts and civilization. May be repeated for other non-English-speaking cultures.

### **FL 3560 - Cultural Heritage II**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IM=Intermediate Med) Studies in culture, history, geography, social customs, fine arts, and civilization. May be repeated 3 times for other non-English speaking cultures.

### **FL 3570 - Special Topics in Culture**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(Intermediate Mid) In-depth studies in culture, history, geography, social customs, fine arts and civilization. May be repeated up to 7 times for credit and for other non-English speaking cultures.

### **FL 3610 - Literature Survey I**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IH=Intermediate High) A survey of the authors and works of a particular period or place. May be repeated under different titles.

### **FL 3620 - Literature Survey II**

**Credits: (3)**  
**Variable Title**  
**Typically taught:**  
**Check with department**

(IH=Intermediate High) A survey of the authors and works of a particular period or place. May be repeated under different titles.

### **FL 3630 - Literature Poetry**

**Credits: (3)**  
**Variable Title**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

(IM= Intermediate Mid) May be repeated under different titles. One literature course is required for regular and teaching majors. May be taken concurrently with FL 3160.

### **FL 3631 - Literature: Prose**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

(IM=Intermediate Mid). A survey of works in prose by one or various authors of a particular period or place, or spanning several literary movements and geographical regions. May be taken 3 times up to 9 credits under different titles.

### **FL 3632 - Literature: Drama**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

(IM=Intermediate Mid). A survey of theater plays by one or various authors of a particular period or place, or spanning several literary movements and geographical regions. May be taken 3 times up to 9 credits under different titles.

### **FL 3650 - Literature Periods**

**Credits: (3)**  
**Variable Title**  
**Typically taught:**  
**Check with department**

(IM=Intermediate Mid) May be repeated under different titles. One literature course is required for regular and teaching majors. May be taken concurrently with FL 3160.

### **FL 3670 - Literature Authors**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IN=Intermediate Mid) May be repeated under different titles. One literature course is required for regular and teaching majors. May be taken concurrently with FL 3160.

### **FL 3680 - Literature: Film**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

(IM=Intermediate Mid). A survey of film by one or various filmmakers of a particular period or place, or spanning several literary movements and geographical regions. May be taken 3 times up to 9 credits under different titles.

### **FL 3690 - Literature Special Topics in Literature**

**Credits: (1-3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IM=Intermediate Mid) May be repeated under different titles. One literature course is required for regular and teaching majors. May be taken concurrently with FL 3160.

### **FL 3710 - Business Language I**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall [Full Sem]**

(IM=Intermediate Mid) Business Language and Practices. Required of all commercial majors.

### **FL 3715 - Business Language II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

(IM=Intermediate High) Advanced Business Language and Practices. Required of all commercial majors.

### **FL 3720 - Language for Specific Purposes I**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall [Full Sem]**

(IM=Intermediate Mid) This course is content, vocabulary and culture-based. The course focuses on practical vocabulary, idiomatic expressions, professional terminology and cultural interactions on a variety of topics such as language for the medical professions, social workers, law enforcement or tourism.

### **FL 3730 - Language for Specific Purposes II**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Spring [Full Sem]**

(IM=Intermediate Mid) This course is content, vocabulary and culture-based. The course focuses on practical vocabulary, idiomatic expressions, professional terminology and cultural interactions on a variety of topics, such as language for medical professions, social work, law enforcement or tourism.

### **FL 3740 - Translation I**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Fall [Full Sem]**

(IM=Intermediate Mid) Introduction to basic techniques and skills needed for bilingual translation of non-fiction texts. Emphasis will be on the translation into English, and on the stylistic, syntactic, cultural, lexical, and terminological problems. Students are given ample opportunity to apply these techniques through a series of written translation assignments, which form the basis for class discussion.

### **FL 3750 - Introduction to Interpreting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to basic techniques and skills needed for bilingual interpretation in a variety of professional settings. The course includes an overview and history of the interpreting industry and work of interpreters, certification and licensure, and the variety of consumers and modalities with which interpreters work. Ethical decision-making models and the Code of Ethics for interpreters are explored.

### **FL 3850 - Study Abroad**

**Credits: (1-6)**

**Typically taught:**

**Check with department**

(IM=Intermediate Mid) Language and culture studies for students whose language proficiency is Intermediate Low to Intermediate High. All Intermediate and Advanced tasks will be performed in the target language. All Superior tasks may be performed in English. Prior travel experience does not apply. May be repeated up to 10 times for credit.

### **FL 4190 - Foreign Language Journal**

**Credits: (1)**

**Typically taught:**

**Check with department**

(IM=Intermediate Mid) For foreign language students in the fourth year who work on publishing the foreign language literary journal. Includes selecting articles, editing and preparing journal layout.

#### **FL 4340 - Foreign Language Acquisition and Teaching for Proficiency**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

(IH=Intermediate High) Theories of Second Language Acquisition, particularly as they apply to the teaching of foreign languages. This course will also review various assessment techniques, the ACTFL Proficiency Guidelines and the National Standards for Foreign Language Learning. Offered fall semester only.

#### **FL 4400 - Methods for Teaching Languages**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

(AL=Advanced Low) Practical Methods, techniques and strategies in teaching foreign languages. Emphasis is on planning, teaching and assessment. Offered spring semester only. Prerequisite/Co-requisite: FL 3220, FL 4340, the ACTFL Oral Proficiency Interview is required; the department standard is Advanced-Low. Students must complete FL 4400 and complete the Praxis II Content Knowledge Exam in French, German or Spanish prior to student teaching.

#### **FL 4500 - Methods for Teaching Languages**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course presents theoretical premises and research on foreign language acquisition. It uses the standards for foreign language learning as the organizing principle for instructional methods; students design classroom lessons, projects and assessments based upon standards. FL 4500 is designed for students who are working toward a foreign language teaching degree or for teachers not desiring post-graduate credit. FL 6500 is designed for teachers who are seeking to recertify or to become endorsed at the graduate level.

#### **FL 4620 - Survey of Literature I**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IH=Intermediate High) One literature course is required of regular and teaching majors. Prerequisite: FL 3160

#### **FL 4630 - Survey of Literature II**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IH=Intermediate High) One literature course is required of regular and teaching majors. Prerequisite: FL 3160

### **FL 4690 - Special Topics in Literature**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Check with department**

(IH=Intermediate High) Detailed analysis of a particular body of literature. For students whose proficiency in the target language is at least Intermediate High. May be repeated up to 10 times under different titles. Prerequisite: FL 3160

### **FL 4740 - Translation II**

**Credits: (3)**

**Typically taught:**

**FRCH, GRMN, JPNS, PTGS Check with department**

**SPAN Spring [Full Sem]**

(IH=Intermediate High) Development of techniques and skills needed for bilingual translation of non-fiction texts. Emphasis will be on the translation into the target language. Methods of contrastive linguistics to analyze pertinent aspects of language structure, involving syntax, vocabulary and style, as well as basic theoretical-historical concepts are employed. Students are given ample opportunity to apply these techniques and concepts through a series of written translation assignments, which form the basis for class discussion. Prerequisite/Co-requisite: FL 3740 is strongly advised, but not required.

### **FL 4801 - A&H Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **FL 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Check with department**

(IH=Intermediate High) May be repeated up to 10 times.

### **FL 4850 - Study Abroad**

**Credits: (1-6)**

**Typically taught:**

**Check with department**

(A=Advanced) Language and culture studies for students whose language proficiency is Advanced or Superior. All tasks are performed in the target language. Prior travel experience does not apply.

### **FL 4860 - Foreign Language Internship**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**  
**Summer [Full Sem]**

(IL=Intermediate Low) An opportunity for students to receive academic credit for faculty-approved, on-the job learning experiences that involve foreign languages and/or cultures. Credit/No Credit grading only. May be repeated up to 6 credits. Prerequisite: Instructor Approval.

#### **FL 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**Not currently offered**

(minimal proficiency level varies with content) Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours.

#### **FL 4960 - Senior Project**

**Credits: (1-3)**  
**Typically taught:**  
**Check with department**

(IH=Intermediate High) For students completing a major with Departmental Honors. Before registration in this course, students must work with a faculty advisor to define the project, create a contract and schedule, and determine the appropriate number of credit hours.

#### **FL 4990 - Senior Assessment**

**Credits: (.5)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Required of all majors during their senior year. Students will assemble a portfolio with a representation of their work in the foreign language. Speaking skills will also be evaluated. Must be completed before graduation clearance.

#### **FL 6500 - Methods for Teaching Languages**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem Online]**  
**Spring [Full Sem Online]**  
**Summer [Full Sem Online]**

This course presents theoretical premises and research on foreign language acquisition. It uses the standards for foreign language learning as the organizing principle for instructional methods; students design classroom lessons, projects and assessments based upon standards. FL 4500 is designed for students who are working toward a foreign language teaching degree or for teachers not desiring post-graduate credit. FL 6500 is designed for teachers who are seeking to recertify or to become endorsed at the graduate level.

## **GEO 1020 - Dinosaurs and the Fossil Record**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

An introduction to the nature of the fossil record and a review of the major events in the history of life, including the rise of dinosaurs and mass extinctions. A writing intensive course requiring a term paper using library resources. Three lectures per week.

## **GEO 1030 PS - Earthquakes and Volcanoes**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [2nd Blk, Full Sem Online]**

The causes, distribution, and effects of earthquakes and volcanoes within the framework of global plate tectonics. Development of problem solving and analytical thinking skills are emphasized through homework assignments related to geologic processes. Three lectures per week.

## **GEO 1060 PS - Environmental Geosciences**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

The scientific study of the interaction of humans and earth systems including topics of natural hazards; soil, water, energy and mineral resources; and issues of global change. Three lectures per week.

## **GEO 1065 - Environmental Geosciences Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Laboratory and field exercises involving analysis of geologic data related to environmental issues or problems. Application of the scientific method and development of basic computational and map interpretation skills will be stressed. One three-hour lab per week. Prerequisite: GEO 1060, or concurrent enrollment.

## **GEO 1110 PS - Dynamic Earth: Physical Geology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Fundamental principles of geology emphasizing physical aspects of the Earth including earth materials, plate tectonics, and the effects of water, wind and ice on the Earth's surface. Useful for all students, and recommended as the first geology course for students with majors/minors in geosciences, science teaching, archaeology, and pre-engineering. Three lectures per week. Optional field trip to observe local geologic features.

### **GEO 1115 - Physical Geology Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The study of minerals and rocks in hand specimens, as well as surficial processes of the Earth revealed by topographic maps and air photos. One three-hour lab per week. Prerequisite: GEO 1110 or GEOG 1000, or concurrent enrollment in either class.

### **GEO 1130 PS - Introduction to Meteorology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Survey of atmospheric processes that create weather. Topics include solar radiation, temperature, moisture, pressure, wind, storm systems, weather forecasting, and air pollution. Problem solving skills and use of satellite imagery included. Three lectures per week.

### **GEO 1220 - Historical Geology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The history of the Earth and the methods used to interpret this history. Short field trips required. Three lectures and one three-hour lab per week. Prerequisite: GEO 1110 and GEO 1115.

### **GEO 1350 PS - Principles of Earth Science**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Overview of Earth's systems, including weather, climate, seasons, rocks and minerals, processes that change Earth's surface, earthquakes, volcanoes, and plate tectonics. Data collection and analysis are included. Two lectures and one three-hour lab per week. Designed for Elementary Education majors.

### **GEO 2050 - Earth Materials**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to the origin, classification, and identification of minerals and rocks including topics related to crystallography, mineral chemistry, petrology, and the importance of mineral and rock resources to our society. Three lectures and one three-hour laboratory per week. Prerequisite: GEO 1115 or permission of instructor.

### **GEO 2600 - Laboratory Safety**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary, team-taught course that will be an overview of the major chemical, biological and physical safety issues related to science laboratories and field work. Class will meet once per week and will be taught in a lecture/demonstration format.

### **GEO 2890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Offered as needed**

Open to all students in Geosciences who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. May be repeated 5 times with a maximum of 6 credit hours.

### **GEO 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**(offered as needed)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **GEO 2950 - Geoscience Fieldtrips**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Application of basic Geoscience field methods during fieldtrips. Readings, written and oral reports, and/or examinations may be required. Prerequisite: consent of instructor. May be repeated for a maximum of 6 credit hours.

### **GEO 3010 - Oceanography and Earth Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] taught even years**

Study of the world's oceans as a framework for examining the major issues in Earth system science. Topics include plate tectonics and the origin of ocean basins, atmosphere-ocean linkages and feedbacks, El Nino events, the ocean's role in biogeochemical cycles, structure and organization of marine ecosystems, and the scientific basis for understanding human impacts on marine systems. Three lectures per week. Prerequisite: GEO 1110 or GEO 1130 or GEOG 1000.

### **GEO 3060 - Structural Geology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Origin and characteristics of structural features in deformed rock. Topics include basic principles of stress, strain, and rock deformation; analysis of faults and folds; and relations to major tectonic features of Earth. Field trips required. Three lectures and one three-hour lab per week. Prerequisite: GEO 2050 and either MATH 1050 or MATH 1080; or consent of instructor.

### **GEO 3080 - Water Resources**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A detailed examination of the water cycle, including, precipitation, surface water, groundwater, glaciers, water conservation, water management, and water pollution with special emphasis on the water resources of Utah and neighboring areas. Three lectures per week. Prerequisite: GEO 1115.

### **GEO 3150 - Geomorphology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

A study of landforms, surficial deposits, and geomorphic processes operating in fluvial, coastal, eolian, and glacial environments. Laboratory exercises employ maps, aerial photographs, and field analysis to understand the interactive nature of geomorphic processes and landform development. Three lectures and one three-hour lab per week. Prerequisite: GEO 1220 and MATH 1050 or MATH 1080.

### **GEO 3180 - Paleontology**

**Credits: (4)**

**Typically taught:**

**Not currently being offered**

Characteristics of important fossil groups and their geologic distribution and paleoecology. Emphasis on the invertebrate record with some treatment of vertebrates and plants. Three lectures and one three-hour lab per week. Prerequisite: GEO 1220 or ZOOL 1110 or consent of instructor.

### **GEO 3210 - Quaternary Environmental Change**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Overview of the geologic and paleoclimatic history of the Earth during the last 2 million years (the "Ice Age"), focusing on the interactions between geological, climatological, and biological processes and systems. Topics include the methods used to date Quaternary deposits, nature of Quaternary glaciations, use of proxy data to model past climates, causes of Quaternary climatic oscillations, history of Pleistocene Lake Bonneville, and the increasing role of humans as agents of environmental change. Three lectures per week. Prerequisite: GEO 1220 or GEOG 1000 or ANTH 2030.

### **GEO 3250 - Geology of Utah**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] taught even years**

The study of Utah's geologic history, rocks, minerals, fossils, and landforms and their relationship to regional and global events. Field trips required. Three lectures per week. Prerequisite: GEO 1220.

### **GEO 3400 - Remote Sensing I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to traditional photographic analysis and digital image processing of remotely sensed imagery (satellite and low-altitude aerial platforms) for earth scientists. An assessment of the electromagnetic spectrum with regard to spectral ranges of reflected and emitted energy as a means of identifying, interpreting, and analyzing earth surface phenomena. Image processing techniques are introduced through ERDAS Imagine software. Three lectures and one three-hour lab per week. Prerequisite: MATH 1040 or consent of instructor.

### **GEO 3550 - Sedimentology and Stratigraphy**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

The processes, origin, classification, identification, and basic petrology of sedimentary rocks and the principles, concepts, and applications of stratigraphy. Field trips required. Three lectures and one three-hour lab per week. Prerequisite: GEO 1220 and GEO 2050; or consent of instructor.

### **GEO 3570 - Foundations of Science Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A thorough investigation of research in science learning and curricular standards at the state and national levels. Foundations of the philosophy of science and scientific inquiry as applicable to science teaching at the secondary level. This course serves as a foundation to a preservice science teacher's education coursework.

### **GEO 3753 - Geomicrobiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] taught even years**

Geomicrobiology is the study of the interactions between microorganisms and minerals. This course will explore 1. geological change mediated by microorganisms, 2. microbial evolution driven by geologically diverse habitats, and 3. applications of geomicrobiology, including understanding the evolution of life on earth, the study of life in extreme environments, and industrial applications of geomicrobiology. This team-taught course includes classroom discussion, laboratories, and field trips. Prerequisite: CHEM 1210 or approval of the instructor. Cross-listed with MICR 3753.

### **GEO 3880 - Groundwater**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Origin, occurrence, behavior, and use of groundwater, with special emphasis on practical applications in Utah. Three lectures and one three hour lab per week. Prerequisite: GEO 1115 and either MATH 1050 or MATH 1080; or consent of instructor.

## **GEO 4010 - Ancient Environments and Paleoecology**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

A multi disciplinary seminar course that will explore both physical and biological methods of interpreting ancient environments and ecology. Three lectures per week. Prerequisite: GEO 3180, or GEO 3550, or ZOOL 3450, or BTNY 3454, or CHEM 3070, or consent of instructor.

## **GEO 4060 - Geoscience Field Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A capstone course in the collection and analysis of field data for various Geoscience applications. Topics include introductory surveying, geologic mapping of bedrock and surficial deposits, measuring stratigraphic sections, GPS surveying, groundwater monitoring, and analysis of geologic hazards. Results are presented in maps, computer graphics, written reports, and oral presentations. One hour of lecture and six hours of lab/field work per week. Prerequisite: GEO 2050, GEO 3150, and GEO 3550.

## **GEO 4100 - Engineering Geology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] taught odd years**

Introduction to basic concepts in engineering geology and geotechnical engineering; emphasizes problem solving as the primary method. Three lectures per week. Prerequisite: GEO 1060 and GEO 1065, or GEO 2050, or consent of instructor.

## **GEO 4150 - Environmental Assessment**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] taught even years**

Interdisciplinary study of geology applied to transport of contaminants in groundwater, environmental site assessment and remediation. Three hours of lecture per week. Prerequisite: GEO 1060 and GEO 1065, or GEO 2050, or consent of instructor.

## **GEO 4210 - Introduction to Computer Mapping and Geographic Information Systems**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Principles of spatial analysis including data base design, data input, and spatial modeling in the context of an information system using the ArcGIS family of software. The nature of computer mapping is examined with an emphasis on scale, minimum mapping unit, topology, and projected mapped features. Three lectures and one three-hour lab per week. Prerequisite: MATH 1040 and proficiency in the Windows operating system, or consent of instructor.

## **GEO 4220 - Technical and Applicational Issues in GIS**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

A capstone course in spatial analysis in which data entry, data manipulation, spatial modeling, and analysis are addressed through the completion of the research project addressing a spatial problem using GIS and the computer as a modeling instrument. Advanced level, computer-intensive applications are employed using the ArcGIS family of software. Three lectures and one three-hour lab per week. Prerequisite: GEO 4210.

## **GEO 4300 - Igneous and Metamorphic Petrology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] taught even years**

The origin, classification, and identification of igneous and metamorphic rocks, and understanding of igneous and metamorphic processes. Laboratory includes analysis of rocks in thin section and an introduction to optical mineralogy. Three lectures and one three-hour lab per week. Prerequisite: GEO 2050 and CHEM 1220; or consent of instructor.

## **GEO 4400 - Remote Sensing II: Advanced Digital Image Processing**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

A laboratory intensive assessment of digital (raster) imagery using advanced computer-assisted digital processing procedures with an emphasis on quantitative statistical analysis through ERDAS Imagine image processing software. The focus is on feature classification of multi spectral imagery, principle components analysis, georectification, and error assessment. Three lectures and one three-hour lab per week. Prerequisite: GEO 3400.

## **GEO 4510 - Geology Field Camp**

**Credits: (4)**

**Typically taught:**

**Summer [1st Blk] taught even years**

Integrated approach to collecting field data and interpreting geologic processes and history. Includes geologic mapping and analysis of bedrock, surficial deposits, and geologic structures using aerial photographs, topographic maps, and surveying techniques. Results presented in written reports, maps, and graphical formats. About forty hours of lab per week for about 4 weeks. Prerequisite: GEO 3060, GEO 3550, and GEO 4060; or consent of instructor.

## **GEO 4550 - Geochemistry**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] taught odd years**

The chemical evolution of the Earth and geochemical processes operating in the lithosphere, hydrosphere, and atmosphere. Applications to chemical reactions, mineral stability, aqueous solutions, geochemical cycles, and isotope geochemistry. Three lectures per week. Prerequisite: CHEM 1220 and GEO 2050; or consent of instructor.

## **GEO 4570 - Secondary School Science Teaching Methods**

**Credits: (3)**

**Typically taught:**

**Offered as needed**

Acquaintance and practice with various teaching and assessment methods. Development of science curricula including lesson and unit plans. It is recommended that this course be completed immediately before student teaching.

Prerequisite: Admission to the Teacher Education Program.

## **GEO 4600 - Geophysics**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Principles and techniques of geophysical exploration, including gravity, magnetic, electric, and seismic methods. Course includes field collection and computer modeling of geophysical data. Three lectures per week. Field trips required.

Prerequisite: GEO 3060 and MATH 1220; or consent of instructor.

## **GEO 4630 - Global Tectonics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] taught odd years**

Large-scale structure and dynamics of the Earth. Framework of plate tectonics including plate motion, processes at plate boundaries, and driving mechanisms. Processes of crustal deformation and evolution of orogenic belts over time, with examples from North America. Three lectures per week. Field trips required. Prerequisite: GEO 2050 and GEO 3060; or consent of instructor.

## **GEO 4750 - Special Topics in Geosciences**

**Credits: (1-4)**

**Variable Title**

**Typically taught:**

**Spring [Full Sem]**

An opportunity to examine in depth topics in the Geosciences not regularly offered as part of the standard course offerings. The specific title and credit authorized will appear on the student transcript. Prerequisite: GEO 1110, GEO 1115, and any specific courses selected by the instructor. May be repeated for a maximum of 8 credit hours.

## **GEO 4800 - Independent Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Offered as needed]**

Prerequisite: Consent of instructor prior to registration. May be repeated for a maximum of five credit hours.

### **GEO 4890 - Cooperative Work Experience**

**Credits: (1-6)**  
**Typically taught:**  
**Offered as needed**

A continuation of GEO 2890. Open to all students. May be repeated for a maximum of 6 credit hours.

### **GEO 4920 - Short courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**Offered as needed**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated for a maximum of 6 credit hours.

### **GEO 4950 - Advanced Geoscience Fieldtrips**

**Credits: (1-3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Application of Geoscience field methods during fieldtrips. Readings, written and oral reports, and/or examinations required. Prerequisite: consent of instructor. May be repeated for a maximum of 6 credit hours.

### **GEO 4970 - Senior Thesis**

**Credits: (2)**  
**Typically taught:**  
**Offered as needed**

A thesis to be written by a student at the culmination of a period of individual field/laboratory and library research, under the direction of a specific faculty person. Prerequisite: Senior standing and departmental approval of the thesis topic.

### **GEO 5030G - Geology for Teachers**

**Credits: (2-4)**  
**Typically taught:**  
**Offered as needed**

Science content course for teachers in the M.Ed Science Emphasis Program. To register, select another departmental course and develop a contract detailing additional work required for graduate credit. Contract must be approved by instructor, department chair, and Director of the Master of Education Program. May be repeated once with a maximum of 4 credit hours.

### **GEO 5920G - Short courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**(offered as needed)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

## **GEOG 1000 PS - Natural Environments of the Earth**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [1st Blk, 2nd Blk]**

A study of the interrelated systems that constitute the earth's surface environment, e.g., landforms, weather, climate, natural vegetation, hydrology, and soils, and their integrated patterns of world distribution.

## **GEOG 1001 - Natural Environments Field Studies**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This introductory level field studies course investigates natural environmental phenomena including weather, climate, natural vegetation, landforms, hydrology, soils and human impacts on the environment. While exploring local natural environments from a geographic perspective, understanding of principles of physical geography is enhanced through direct observation in the field and through the measurement of phenomena noted above. Prerequisite/Co-requisite: Prerequisite or current enrollment in: GEOG 1000 Natural Environments of the Earth.

## **GEOG 1002 - Map Reading and Land Navigation**

**Credits: (2)**

**Typically taught:**

**Summer [1st Blk]**

Orienteering and the use of maps, compasses, global positioning systems (GPS), and other navigational aids. Lecture and field work prepares course participants to apply navigational knowledge and skills in a professional setting. Weekly two-hour lab sessions for ten weeks.

## **GEOG 1300 SS/DV - Places and Peoples of the World**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [1st Blk, 2nd Blk]**

The study of different places, countries, and regions of the world. Addresses topics relating to natural environment, ethnic diversity, and regional differences in subjects related to culture, gender, age, class, social structure, spatial organization, and economic activities. Current social conditions within the world's major culture realms are analyzed and compared.

## **GEOG 1500 PS - The Science of Global Warming: Myths, Realities and Solutions**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course examines the science behind global warming, providing an understanding of the basic physical, chemical, biological and geographical principles that explain the workings of Earth's climate system and the human influence upon it. The course also considers the feasibility and societal impacts of possible solutions to human-induced global warming.

Finally, examination of the scientific process is a central part of the course, as students learn to separate truth from fiction in the arguments about whether or not global warming is a real problem, and if so, what should be done about it.

### **GEOG 1520 SS/DV - Geography of the United States and Canada**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Addresses topics relating to the area's natural environment, ethnic diversity, and regional differences in such subjects as culture, gender, age, class, social structure, spatial organization, and economic activities. Present social and cultural conditions within the United States and Canada are analyzed and compared.

### **GEOG 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

**Typically taught:**

**(Offered as needed)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **GEOG 2950 - Elementary Regional Field Studies**

**Credits: (1-3)**

The study of specific geographic regions, utilizing field observations, lectures, and individual student research. May be repeated twice with a maximum of 3 credit hours.

### **GEOG 3050 - Weather and Climate**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] or**

**Spring [Full Sem]**

The advanced study of the processes that produce global climate patterns; analysis of the prospects and possible repercussions of global climate change; and an examination of climatic anomalies such as El Niño, hurricanes, tornadoes and other unusual phenomena. Prerequisite: GEOG 1000, or GEO 1130, or the equivalent.

### **GEOG 3060 - World Environmental Issues**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] or**

**Spring [Full Sem]**

A study of global and local environmental issues such as changing air and water quality, food production, waste management, and other topics. The course identifies strategies for creating healthier and more sustainable ways of living within our natural and built environments. Prerequisite: GEOG 1000, or BTNY 1403, or the equivalent, or consent of the instructor.

## **GEOG 3070 - Wetland Environments**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Analysis of physical properties, values, economic, and legal issues associated with wetland environments. Since wetlands in different places have many different attributes, a detailed examination is made of wetland environments in different parts of the United States.

## **GEOG 3080 - Arid Lands**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Presents a general overview of the characteristics and variant topography, geography, and climatic conditions of the Earth's arid lands. Examines the spatial location of arid regions and their climatic controlling factors. Weather patterns, hydrology, and eolian processes will be discussed along with sediment transportation and deposition of arid environments. The course will also review dune types and formation along with soils of arid zones. The course concludes with a discussion on the desertification and the impact of human intervention in the misuse of arid lands, while discussing preservation versus reclamation of these regions. Prerequisite: GEOG 1000, or GEO 1060, or the equivalent, or consent of the instructor.

## **GEOG 3081 - History of Geographic Thought**

**Credits: (3)**

**Typically taught:**

**(alternate years)**

A study of the development of the science of geography, giving attention to its changes in emphasis and philosophy. Prerequisite: Junior standing.

## **GEOG 3090 - Arctic and Alpine Environments**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An examination of the physical environments of high altitude and high latitude places, the ways in which humans interact with these environments, and their broader roles within the large Earth systems. Topics will include causes and consequences of avalanches, climatic characteristics of the Arctic, glacier behavior, sea ice, and the responses of human physiology to high altitudes. Prerequisite: GEOG 1000, or GEO 1060, or the equivalent, or consent of the instructor.

## **GEOG 3210 - Urban Geography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The study of cities as elements of the landscape, their distribution, location, and structure, as related to their physical setting, economic function, and cultural inheritance.

### **GEOG 3300 - Historical Geography of the United States**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A geographic analysis of America's past featuring an examination of cultural development in different parts of the United States and how this has produced many distinct regional landscapes throughout the country.

### **GEOG 3360 - Economic Geography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] or**

**Spring [Full Sem]**

The spatial structure of the world's resources, production, commerce, and economic problems.

### **GEOG 3390 - Aerial Photo Interpretation**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

The use of aerial photos to interpret geographic phenomena. One lecture and two 3-hour labs a week.

### **GEOG 3450 - Introduction to Cartography and GIS**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to map making, to include the history of cartography, the development of map components with emphasis on map projections, grid systems, scale, direction, and symbol design. Particular attention will be paid to the creation of maps using both manual and digital (computer and computer-assisted) techniques. The course also will deal with map reading skills for spatial analysis, orientation, and land navigation. One lecture and two 3-hour labs per week.

### **GEOG 3460 - Advanced Cartography and GIS**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The advanced study of maps and their role in portraying geographic data. Emphasis will be placed on various digital (computer and computer-aided) mapping techniques that categorize geographic data and illustrate this information in map form. The course will also examine cartographic visualization, databases, and production. One lecture and two 3-hour labs per week. Prerequisite: GEOG 3450 or permission of instructor.

### **GEOG 3500 - Geography of Utah**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the physical environment and activities of man in Utah.

### **GEOG 3540 - Geography of Latin America**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Addresses topics relating to Latin America's natural environment, ethnic diversity, and regional differences in culture, gender, age, class, social structure, spatial organization, and economic activities. Current issues relating to culture and society in Latin America are analyzed within the context of its colonial inheritance and its future prospects.

### **GEOG 3590 - Geography of Europe**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Addresses topics relating to Europe's natural environment, ethnic diversity, and regional differences in culture, gender, age, class, social structure, wealth, spatial organization, and economic activities. Current issues and social conditions within Europe and its major subdivisions are discussed and analyzed.

### **GEOG 3600 - Quantitative Methods in Geography**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The gathering and analysis of spatial data. Hypothesis testing and the use of selected computer statistical packages. Two lectures and one 3-hour lab a week. Prerequisite: Quantitative Literacy (MATH 1040 recommended, but not required).

### **GEOG 3620 - Geography of Russia and the Former USSR**

**Credits: (3)**

**Typically taught:**

**(alternate years)**

Addresses topics relating to Russia's natural environment, ethnic diversity, and regional differences in culture, gender and age structure, class structure, spatial organization, and economic activities. Current social and economic conditions in Russia and its Near Abroad are analyzed within the context of the breakup of the former Soviet Union.

### **GEOG 3640 - Geography of Asia**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Addresses topics relating to Asia's natural environment, ethnic diversity, and regional differences in culture, gender, age, class, social structure, spatial organization, and economic activities. Current societies in Asia are analyzed with special attention given to their colonial inheritance and future prospects.

### **GEOG 3660 - Geography of China and Japan**

**Credits: (3)**

Covers subjects dealing with the area's natural environment, ethnic diversity, and regional differences in culture, gender,

age, class, social structure, spatial organization, and economic activities. Current topics relating to social conditions within China and Japan are analyzed and compared.

### **GEOG 3740 - Geography of Africa**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The study of Africa's natural environment, ethnic diversity, and regional differences in culture, gender, age, class, societal structure, wealth, spatial organization, and economic activities. Current socio-economic conditions in Africa are analyzed within the context of its colonial inheritance and its future outlook.

### **GEOG 3780 - Geographic Area Studies**

**Credits: (1-3)**

Surveys different geographic areas and regions of the world. When this number is used it will be accompanied by a descriptive title and the credit authorized, which will appear on the student's transcript. May be repeated for credit when a different title is used.

### **GEOG 4410 - Sustainable Land Use Planning**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of the status and tools of planning, planning office organization, the federal and state role in planning, and problems in planning. The course emphasizes concepts of sustainable land use planning such as resource conservation, air and water quality improvement, agricultural land preservation, transit oriented development, and alternatives to suburban sprawl.

### **GEOG 4420 - Advanced Urban and Regional Planning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of the enabling legislation for planning, zoning laws and ordinances, rezoning and review processes, zoning problems, and the ramifications of urban growth. The preparation, financing, citizen participation and evaluation of land use pertaining to general plans. Class groups will prepare, critique, and present a draft urban general plan. Prerequisite: GEOG 4410.

### **GEOG 4800 - Individual Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A personalized course designed to foster individual research and scientific writing. May be repeated up to a maximum of 12 credit hours. **Instructor approval required before registering for this course.**

## **GEOG 4890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students in Geography who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. A maximum of six credit hours will be accepted toward a major in geography. **Instructor approval required before registering for this course.**

## **GEOG 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

**Typically taught:**

**(Offered as needed)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student's transcript. May be repeated 5 times up to 6 credit hours.

## **GEOG 4950 - Advanced Regional Field Studies**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A directed study of specific geographic regions utilizing field observations, lectures, and individual student research. Prerequisite: A general course in Geography or consent of the instructor. May be repeated up to a maximum of 12 credit hours. May be repeated 11 times up to 12 credit hours.

## **GEOG 4990 - Research Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A course in which hypothetico-deductive research methods and other quantitative techniques are applied to geographic problems. Prerequisite: GEOG 3600 and senior standing.

## **GEOG 5030 - Geography for Teachers**

**Credits: (3)**

**Typically taught:**

**(Offered as needed)**

Science content course for teachers in the MEd Science Emphasis Program. To register, select another departmental course and develop a contract detailing additional work required for graduate credit. Course may be repeated. Contract must be approved by instructor, department chair, and Director of the Master of Education Program. Undergraduate.

## **GEOG 5030G - Geography for Teachers**

**Credits: (3)**

**Typically taught:**

**(offered as needed)**

Science content course for teachers in the MEd Science Emphasis Program. To register, select another departmental course and develop a contract detailing additional work required for graduate credit. Course may be repeated. Contract must be approved by instructor, department chair, and Director of the Master of Education Program. Graduate.

## **GERT 1010 SS - Introduction to Gerontology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of physical, psychological, social-psychological, and social dimensions of aging and the application of principles and strategies to facilitate adaptation to aging. Emphasis is placed on methods of gathering knowledge, the current knowledge base, and strategies for adaptation in the later stages of life cycle.

## **GERT 2220 - Introduction to Social Gerontology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A scientific study of social and psychological aging and the application of principles and strategies to facilitate adaptation to aging. The focus is on methods and systems for gathering data, demography of aging, social theoretical perspectives, psychological effects of aging, aging and the economy, and government and the politics of aging.

## **GERT 2900 - Current Topics on Aging**

**Credits: (2-4)**

A study on age related topics of current interest. Specific title will appear on student's transcript along with authorized credit. May be repeated once for a maximum of 4 credits.

## **GERT 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated up to 3 times for a maximum of 4 credits.

## **GERT 3000 - Death and Dying**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth study of death, death-related issues and social institutions and practices dealing with death in American society, with special emphasis on the social processes surrounding death and constructive responses to death and dying. Cross-listed with SW 3000.

### **GERT 3120 - Aging: Adaptation and Behavior**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An examination of the physical and psychological processes of aging. The emphasis is upon behavioral and social adaptation to these processes. Cross-listed with SW 3120.

### **GERT 3320 - Ethnicity and Older Women in the American Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The importance of special populations (ethnic, racial and women) as they relate to the aging process. Cross-listed with SW 3320.

### **GERT 3400 - Methods of Research: Social and Behavioral Research**

**Credits: (4)**

**Typically taught:**

**Not currently being offered**

Focus on acquiring knowledge, developing skills, and conducting social and behavioral scientific research, utilizing single system design that includes visual and statistical assessment. The course will include both qualitative methodologies (evaluative research, historical methods, case studies, field research, ethnography studies, and grounded theory) and quantitative methodologies (experimental and survey with a special emphasis on survey). Prerequisite: It is recommended to take a Statistics course before Research.

### **GERT 3500 - Social Welfare & Gerontological Policy Development and Service**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The history, mission, philosophy and human service aspects used in the development of social work/gerontology as a profession will be covered. Examples of social, public and social welfare policy will be identified and studied. Knowledge of local, state, and federal legislation, professional organizations, and membership organizations will assist in review of lobby, funding and implementation practices used in meeting human service needs. Methods for the political and organizational analysis of processes and policy will be covered. Prerequisite: SW 1010 or GERT 1010. (SW 3500/GERT 3500 must be completed before entering Field Practice).

### **GERT 3600 - Social Statistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, Online]**

**Spring [Full Sem, 2nd Blk, Online]**

**Summer [Online]**

Introduction to analysis and presentation of data. Prerequisite: Meet WSU Quantitative Literacy requirement. Cross-listed with SW 3600.

### **GERT 4220 - Societal Responses to Aging**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to cover aspects of retirement relating to job change or discontinuance. The processes, events, social roles, and phases of life will presented. Cross-listed with SW 4220.

### **GERT 4650 - Retirement: Adjustment/Planning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to cover aspects of retirement relating to job change or discontinuance. The processes, events, social roles, and phases of life will presented. Cross-listed with SW 4650.

### **GERT 4830 - Readings and/or Projects**

**Credits: (2-4)**

Individual readings and/or projects for the senior Gerontology major (with the approval of the instructor). May be repeated once for a maximum of 4 credits.

### **GERT 4860 - Introductory Field Practicum**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Introductory experience in the world of work in a gerontology setting whereby the student might develop, test, and use knowledge derived from classroom experiences (90 hours at approved agency). Prerequisite: GERT 1010, GERT 3320 and GERT 3500; must be a declared minor. Offered on demand.

### **GERT 4861 - Advanced Field Practicum**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

Advanced experience in the world of work in a gerontology setting whereby the student might develop, test, and use knowledge derived from classroom experiences (90 hours at approved agency). Prerequisite: GERT 3400, GERT 3500, GERT 4860, and must be a declared major or minor.

### **GERT 4862 - Specialized Field Practicum**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

Specialized experience in the world of work in a gerontology setting whereby the student might develop, test, and use knowledge derived from classroom experiences (90 hours at approved agency). Prerequisite: GERT 3600, GERT 4861, and must be a declared major or minor.

### **GERT 4900 - Current Topics on Aging**

**Credits: (2-4)**

An in-depth study on age related topics of current interest. Specific title will appear on student's transcript along with authorized credit. May be repeated once for a maximum of 4 credits.

### **GERT 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated up to 3 times for a maximum of 4 credits.

### **GERT 4990 - Senior Seminar**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Preparation and discussion of gerontology concepts and topics. Information and techniques for obtaining a job and selecting a graduate school. Prerequisite: GERT 1010, GERT 3320, GERT 3400, GERT 3500 and GERT 3600. Offered on demand.

### **HAS 3000 - The Health Care System**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

A study of the U.S. healthcare system to help students understand the critical issues facing healthcare in its ever-changing environment and to gain a sense of the complex multidimensional nature of healthcare delivery in the United States.

### **HAS 3010 - Professionalism in Healthcare**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course explores a variety of topics to develop a stronger sense of professionalism for healthcare managers. Topics include business and social etiquette, self-assessment, professional deportment, networking, effective communication skills, and dressing professionally.

### **HAS 3020 - Health Care Marketing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

This course outlines the application of marketing principles to health care organizations and the public health arena. Students will apply those principles in the development of a marketing plan.

### **HAS 3150 - Community Health Agencies and Services**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

An overview of public and community health including history, management, prevention and epidemiology of disease. Emphasis on the role of community and government health agencies regarding health promotion and disease prevention activities.

### **HAS 3190 - Cultural Diversity in Patient Education**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem]**

**Summer [Online]**

This course is an introduction to patient or client education skills and theory. It also focuses on health traditions of culturally diverse clients and how those traditions must be considered during effective patient education. In particular, the course will move from the general health traditions of world populations and religions, to the more specific behaviors and expectations of U.S. populations. Gender, age, and class will all be considered in the studies.

### **HAS 3230 - Health Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A broad examination of communication theory, application, and research in health care delivery and management. Examines many different levels and channels of communication including the development and application of interpersonal communication, small group communication and teamwork, organizational communication, communication ethics, leadership, and motivation skills in dealing with health care providers, staff, and consumers in a variety of health care environments. Cross-listed with COMM 3230.

### **HAS 3240 - Human Resource Development in Health Care**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem]**

Study of human resource principles and practices in Health Care facilities. The general topics include: job analysis and work flows, compensation, recruitment and selection, performance appraisals, discipline, legal environment, unions, safety and health. Prerequisite: HAS 3000.

### **HAS 3260 - Health Care Administrative and Supervisory Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem]**

**Summer [Online]**

Basic theories and concepts of management. Emphasis is on individual and group behavior, interpersonal skills, decision making, leadership theory, planned change, motivation, teamwork, organizational design and culture within the context of the health care organization. Prerequisite: HAS 3000.

### **HAS 3700 - Public Health Finance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Finance in the public sector is fundamentally different from business or corporate finance. This course will provide an overview of finance as directly related to public health. Basic concepts of government accounting and budgeting will be presented. The financial aspects of Medicare and Medicaid along with grant funding and funding agencies will be discussed. Students will leave the course with the ability to formulate a public health program budget as well as the background knowledge necessary to understand the financial operations of local and state departments of health.

### **HAS 3750 - Health Care Financial Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

This course is designed to build upon the concepts introduced in basic accounting courses and develop proficiency in applying administrative financial techniques in health care decision making. Prerequisite: HAS 3000, ACTG 2010, Quantitative Literacy, HIM 3200.

### **HAS 4160 - Medical Practice Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

Covers the fundamentals of group practice and ambulatory care management. Includes leadership, planning, marketing, IT, business operations, physician/hospital relationships, and basic principles of management applied to the out-patient setting. This is an elective course for HAS students. Prerequisite: HAS 3000.

## **HAS 4320 - Health Care Economics and Policy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Discussion and analysis of the economic models controlling healthcare markets with subsequent investigation of the complex federal, state, and local policies and policymaking processes which result from those models in U.S. healthcare systems. Prerequisite: HAS 3000 and ECON 1010 or ECON 2010.

## **HAS 4400 - Legal and Ethical Aspects of Health Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Review of legal responsibilities of physicians, other healthcare workers, and healthcare institutions and means by which health-related laws and regulations are developed and implemented. Issues involved in healthcare professional ethics are discussed and evaluated. Prerequisite: HAS 3000.

## **HAS 4410 - Clinical Instructional Design and Evaluation**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

Designed to provide individuals with the skills necessary for the preparation, planning and evaluation of instruction. The Philosophy, theory, and effective methods and techniques of teaching the adult learner.

## **HAS 4420 - Clinical Instructional Skills**

**Credits: (3)**

**Typically taught:**

**Spring [Online]**

Designed to provide individuals with skills necessary for the implementation of instruction. Presentation practice is provided with peer evaluation and feedback.

## **HAS 4500 - Grant Writing**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

This course is an introduction to the art of grant writing. The general elements of a grant will be outlined and explored. Students will learn about what makes a grant proposal successful. Grant writing and evaluation skills will be developed, demonstrated, and exercised.

## **HAS 4520 - Long-Term Care Administration**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Application of health administration core curriculum to specific practice issues in the long-term care setting. Setting-specific organization structures, relationships with healthcare providers, services offered, financial management issues, and regulatory issues are investigated. Prerequisite: HAS 3000 and HAS 4400.

## **HAS 4525 - Health Facility Operations**

**Credits: (1)**

**Typically taught:**

**Spring [2nd Blk]**

A review of long-term care facility operations utilizing computer-based simulations. Teams of students make operational decisions utilizing financial statements, census reports, staffing schedules and other relevant factors. Prepares students for specific types of situations and questions encountered on the long-term care administrator licensing examination. Prerequisite: HAS 3000 and HAS 4520.

## **HAS 4620 - International Health and Health Care**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

This course is designed to explore health and health care systems in countries other than the United States. Emphasis will be directed toward illnesses and treatments, health promotion, environmental and economic issues, governmental infrastructures that support health, and cultural considerations. The course will be targeted to the professional interested in international health information and experiences.

## **HAS 4700 - Public Health Capstone**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The Public Health Capstone will provide students in the Public Health program a comprehensive review culminating in an applied project. Public Health concepts including epidemiology, population health, finance, behavior change, communications and marketing among others will be brought together demonstrating their application in real world public health situations. A final project will be used to demonstrate the students understanding of general public health concepts and their applications.

## **HAS 4740 - Senior Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

A capstone course for seniors designed to provide integration and application of theory through the use of case study analysis. Departmental approval required. Prerequisite: HAS 3000.

### **HAS 4741 - Senior Seminar Capstone**

**Credits: (3)**

**Typically taught:**

**Full [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

A capstone course for seniors designed to provide integration and application of theory through the use of case study analysis, competency assessment, interaction with current practitioners, individual and team projects. Students will be provided with resources to assess and enhance their competencies in the various functional areas of health administration. Departmental approval required. Prerequisite: HAS 3000.

### **HAS 4800 - Individual Study**

**Credits: (1-3)**

Topics in allied health education studies tailored to the particular needs and interests of the student. Class may be repeated once up to six credits with program approval.

### **HAS 4850 - Study Abroad**

**Credits: (1-6)**

**Variable Title**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated five times up to six credit hours.

### **HAS 4860 - Practicum/Internship**

**Credits: (2-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

Provides opportunities for observation, participation and practical application of administrative and management skills in the institutional setting. Departmental approval required. Prerequisite: HAS 3000. May be repeated once up to 12 credit hours.

### **HAS 4990 - Seminar**

**Credits: (1)**

Topics, issues, and trends in Health Care. May be repeated twice up to 3 credit hours with program approval.

## **HIM 2000 - Introduction to Health Information Systems and Settings**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Online]**

Introduction to the health information profession. Job duties, functions, and the professional organization are discussed. Health care settings, numbering and filing systems and equipment, master patient indexes, health information documentation requirements, discharge analysis and incomplete chart control are presented. Prerequisite: HTHS 1101 and HTHS 1110 or ZOOL 2100.

## **HIM 2250 - Health Care Privacy and Security**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem]**

The HIPAA privacy and security law, institutional review boards and human subjects research, development of policies and procedures for privacy and security, and release of information are discussed.

## **HIM 2300 - Diagnosis Coding**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Online]**

**Summer [Online]**

Coding conventions and procedure using the ICD-10-CM coding system are introduced and practiced. Prerequisite: HTHS 1110 and HTHS 1111 or ZOOL 2100 and ZOOL 2200 or equivalent.

## **HIM 2320 - Ambulatory and Physician Office Coding**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

CPT classification, conventions and coding procedures are introduced and practiced. Abstracting medical information from health documentation for coding facility outpatients, physician and professional billing is presented, discussed and practiced. Prerequisite: HIM 2300.

## **HIM 2330 - Classification Systems Topics and Reimbursement Issues**

**Credits: (2)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

Discussion of issues parallel to or founded in the use of classification systems: Federal reimbursement systems, coding compliance, quality auditing, peer review organizations, and database reporting.

## **HIM 2410 - ICD-10-PCS Coding**

**Credits: (2)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem, Online]**

ICD-10-PCS coding, conventions and guidelines are introduced and practiced. Students will gain exposure to procedure coding using the ICD-10-PCS system for hospital inpatient claims. Prerequisite: HIM 2300.

## **HIM 2500 - Healthcare Database Management & Security**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Online]**

An introduction to database monitoring, maintenance and use. Data definition, vocabularies, terminologies and dictionaries are discussed. Clinical abstracting and report writing are practiced. A working knowledge of database management is developed. The HIPAA security law, development of policies and procedures to enforce the security rule are covered.

## **HIM 2861 - (2nd Year) Professional Practice Experiences**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Student's final experience in the health care setting. Skills and learning from the classroom and laboratory are reinforced and practiced. The student observes in other health care settings. Projects assigned give the student expertise in technical functions, e.g., diagnostic and procedure coding systems. Prerequisite: HIM 2000.

## **HIM 2862 - (2nd Year) Professional Practice Experiences**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

Student's final experience in the health care setting. Skills and learning from the classroom and laboratory are reinforced and practiced. The student observes in other health care settings. Projects assigned give the student expertise in technical functions, e.g., ICD-9-CM, CPT, and other coding systems. Prerequisite: HIM 2000.

## **HIM 2863 - Professional Practice Experience in Coding**

**Credits: (1)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

Student's final experience in the coding setting. Skills and learning from the classroom and laboratory are reinforced and practiced in a simulated setting. Prerequisite: HIM 2300.

### **HIM 3000 - Computer Applications in Health Care**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem]**

**Summer [Online]**

A survey of the clinical, research, and administrative applications of computers in the health care industry from which health care information is currently derived. The role of this technology and of the data collected in accomplishing the objectives and procedures of the principle functional areas in health care organizations is emphasized as are the interrelationships of the organizational units with respect to data acquisition, storage, analysis, retrieval, and use.

### **HIM 3200 - Epidemiology and Biostatistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

The goals and objectives of epidemiology, its policy and procedure, and its foundation and support in health care information are the focus of this course. Investigation of an epidemic, measures of mortality, incidence and prevalence, measures of risk, biological variability, probability, screening, sampling, statistical significance, correlation, multiple regression, retrospective and prospective studies, and survival analysis are discussed. Advanced techniques for the statistical analysis of institutional case-mix and quality improvement data are presented. Prerequisite: Must meet WSU Quantitative Literacy requirement.

### **HIM 3210 - Advanced Epidemiology & Population Health**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an advanced, in-depth, exploration of epidemiology, public health, and global population health. The history, philosophy, core values, concepts, and functions of public health will be discussed at the local, national, and international levels. The concepts and methods needed to track and analyze disease trends will be applied. Students will be able to identify and describe upstream determinants of health including the socioeconomic, behavioral, biological, environmental, and other factors that affect human health and contribute to health disparities. At the conclusion of the course, students will be able to identify public health issues, design a basic intervention, and formulate appropriate internal and external public health communications. Prerequisite: HIM 3200 - Epidemiology and Biostatistics.

### **HIM 3300 - Introduction to Quality Improvement in Health Care**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Online]**

**Summer [Online]**

Quality assessment, disease processes, risk management, and utilization review systems are presented to the student with an emphasis upon integration. TQM/CQI processes are examined and practiced.

## **HIM 3400 - Health Care Networks and Databases**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

A comprehensive introduction to health care application development, including local and wide area networks, the internet and intranets, database structure, database tools, data management, and information management.

## **HIM 3450 - Health Care Systems Analysis and Design**

**Credits: (3)**

**Typically taught:**

**Spring [Online]**

A comprehensive introduction to the planning, design, and construction of health care information systems, using the systems development life cycle and other appropriate design tools.

## **HIM 3500 - Biomedical Research Support**

**Credits: (2)**

**Typically taught:**

**Fall [Online]**

Design concepts and information systems used in biomedical research and investigation by drug companies, genetic engineering firms, academic institutions, and individual researchers and the support of same by health information professionals are discussed. The major national research policy-making bodies (NIH, NCHS, CDC) and their research protocols are reviewed. The student also learns what techniques and resources facilitate biomedical literature searches and how to assist a researcher in the pursuit of published information. An overview of the development, structure, and management of a health care institutional medical library is presented.

## **HIM 3550 - Health Care Data Analytics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

An in depth exploration of healthcare data analytics. Application of data analytic methodologies to improve decision making, performance, healthcare quality and strategic planning will be presented and practiced. Students will become familiar with internal and external data sources in healthcare and will be able: extract data from the data source; evaluate the quality of the data; perform basic data analytics; interpret analysis; present information in a final report. Prerequisite: HIM 3500 - Biomedical Research Support. Prerequisite/Co-requisite: HIM 3200 - Epidemiology and Biostatistics.

## **HIM 3600 - Advanced Diagnosis and Procedure Coding**

**Credits: (3)**

**Typically taught:**

**Fall [online]**

**Spring [online]**

**Summer [online]**

This is an advanced coding course designed for students with previous medical coding experience or previous medical coding courses. This course explores the more complex areas of ICD-10-CM, ICD-10-PCS, and CPT coding in hospital, outpatient, and physician based settings. Students will apply coding principles and guidelines related to complex

diagnoses and procedures. Coding from actual patient records is emphasized. The use of coding references and coding software is integrated into the course. Prerequisite: HIM 2300, HIM 2320, HIM 2410 or instructor approval.

### **HIM 3610 - Advanced Principles of Revenue Cycle Management**

**Credits: (3)**

**Typically taught:**

**Fall [online]**

**Spring [online]**

**Summer [online]**

Elements of the revenue cycle are reviewed. Principles of revenue cycle management are examined including: scope and management of clinical coded data, process improvement and data quality, compliance, internal and external auditing, reporting, case-mix management, and changes in revenue cycle management. Prerequisite: HIM 2330 or instructor approval.

### **HIM 3620 - Principles of Clinical Documentation Improvement**

**Credits: (3)**

**Typically taught:**

**Fall [online]**

**Spring [online]**

**Summer [online]**

Clinical documentation is the foundation of every patient health record. This course addresses the fundamentals of clinical documentation—assessing the current quality of health record documentation, development of a CDI program and process. How clinical documentation improvement impacts the revenue cycle of a healthcare organization will be reviewed. Prerequisite/Co-requisite: Prerequisites/Corequisites: HIM 2300, HIM 2320, and HIM 2410 or instructor approval.

### **HIM 4100 - Health Information Services Management**

**Credits: (3)**

**Typically taught:**

**Spring [Online]**

Management issues of health information services departments are discussed and worked through with reference to planning information services, organizing work force, procedures, and resources, staffing work units with qualified personnel, influencing information services teams performance, controlling/evaluating health information services performance and products, and resolving organizational conflict involving information issues. Background is developed to facilitate evaluation of a vended system's ability to meet health care information applications, objectives and procedural requirements. "Entrepreneurial" skill is developed to lead organizations in finding solutions to their information management problems.

### **HIM 4990 - Baccalaureate Thesis and Presentation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Senior health information management students complete a research project and thesis in partial fulfillment of program requirements. By the completion of the course, the senior student will be able to specify a thesis topic, specify individual thesis learning objectives, specify individual thesis learning activities, develop a thesis project time-line, implement the

thesis project, write the thesis, and present it to the Health Information Management faculty and students. Topics are chosen by the student but require approval by the Program Coordinator. Prerequisite: HIM 3500.

### **HIM 5000 - Clinical Foundations in HIM**

#### **Credits: (3)**

A foundation in the language of medicine, pathophysiology and pharmacology will be discussed and developed.

### **HIM 5010 - Health Data Management**

#### **Credits: (3)**

This course prepares students to manage and create health data elements and data sets; and to develop and maintain organizational policies, procedures and guidelines for management of health information. Compliance with health care information laws, regulations, standards, and preparation for accreditation and licensing processes is discussed and practiced.

### **HIM 5020 - Diagnosis and Procedure Coding**

#### **Credits: (3)**

Coding and classification conventions and procedures are developed and practiced. The course will also include auditing of coded data for accuracy.

### **HIM 5030 - Clinical Data Management for Quality Care & Revenue Cycle Integrity**

#### **Credits: (3)**

This course prepares the student to collect, analyze, present and organize data to improve quality of patient care and revenue cycle management. The management of clinical data required in reimbursement systems and prospective payment systems in health care delivery are discussed.

### **HIM 5040 - Privacy, Security and Confidentiality in Health Care**

#### **Credits: (3)**

This course prepares students to design and implement security measures to safeguard protected health information. The management, access, disclosure and use of PHI to ensure confidentiality is discussed. How to investigate and resolve health care privacy and security issues and problems are introduced.

### **HIM 5050 - Health Information Systems & Technology**

#### **Credits: (3)**

A foundation of electronic health record terminology and the information systems life cycle is explored. The important basis upon which successful EHR implementation must rely - project management, strategic planning, and migrations from the current state are discussed. Skills in selecting, negotiating for, implementing and operating the electronic health record and its corresponding databases are developed. The use of data dictionary, data models, database management and design for electronic health records are introduced.

### **HIM 5080 - Health Information Management Issues**

#### **Credits: (3)**

Managing the HIM function including the monitoring of industry trends and organizational needs for change, strategic and operational planning, training or educational activity development, and preparation for accreditation and licensing processes are discussed.

## **HIM 5090 - HIM Internship**

### **Credits: (3)**

Provides opportunities for observation, participation and practical application of health information management skills in the institutional setting.

## **HIST 1500 SS - World History to 1500 C.E.**

### **Credits: (3)**

#### **Typically taught:**

**Multiple Sections Each Semester**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Full Sem Online]**

Examines the political, social, cultural, economic, religious, scientific, and intellectual influences on the development of world civilizations to 1500 C.E. Emphasis is global, comparative, and multi-cultural.

## **HIST 1510 SS/DV - World History from 1500 C.E. to the Present**

### **Credits: (3)**

#### **Typically taught:**

**Multiple Sections Each Semester**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Full Sem Online]**

A survey of the political, social, cultural, economic, religious, scientific, and intellectual influences on the development of Asia, Africa, the Americas, and Europe from 1500 to the present.

## **HIST 1700 AI - American Civilization**

### **Credits: (3)**

#### **Typically taught:**

**Multiple Sections Each Semester**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Full Sem Online]**

An analysis of American civilization that traces social, cultural, economic, and political developments in the United States. May be taken to complete the American Institutions requirement (grade of C or better required).

## **HIST 2000 - Introduction to the Craft of History**

### **Credits: (1)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

History 2000 is a one-credit course for newly declared history majors. It is designed to introduce students to different

subfields within history; to familiarize them with the standard modes of researching, interpreting, analyzing, and citing historical sources; and to teach them how to build an historical argument. It is a team taught course, calling upon all of the faculty from the History Dept. Should be taken upon registration as a history major or history teaching major.

### **HIST 2700 - History of the United States to 1877**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A chronological survey of American history from Native American and European colonial origins through Reconstruction, 1877. Directed toward History majors, minors, and those planning to teach U.S. history. Students may fulfill the American Institutions requirement by completing this course and HIST 2710 with a grade of C or better.

### **HIST 2710 - History of the United States since 1877**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem]**

**Summer [Full Sem, Full Sem Online]**

A chronological survey of American history from the Gilded Age, 1877, to the present. Directed toward History majors, minors, and those planning to teach U.S. history. Students may fulfill the American Institutions requirement by completing this course and HIST 2700 with a grade of C or better.

### **HIST 2920 - Short Courses, Workshops, and Special Programs**

**Credits: (1-6)**

Consult the semester class schedule for current offering under this number. The specific title and credit authorized will appear on the student transcript. No more than 6 hours will count towards a major or minor.

### **HIST 3010 - Native American History: 1300 to Present**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

An introduction to Native American history, stressing the integrity and viability of Native American societies; dynamic and self-directed culture changes and the clash of cultures that occurred with Native American and Non-Native contact.

### **HIST 3030 - African-American History**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online] odd years**

**Summer [Full Sem Online]**

African-American history from African origins to the late twentieth century. This course examines the historical experiences and enduring influence of African-Americans on U.S. history.

### **HIST 3050 - History of U.S. Latinos**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Traces the historical development of the Latin Americans in the U.S. from their Indian, Spanish and African heritage to the present with special emphasis on the Mexican-American, Chicano contributions to American life.

### **HIST 3070 - Women in American History: 1600 to Present**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online] Every Other Year**

Examines gender as an organizing principle in United States history from the beginnings of European settlement to the present. Also explores the ways in which race, ethnicity, class, and region shaped different female experiences.

### **HIST 3090 - American Social History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] Every Other Year**

Explores American society through analyses of the public and private lives of ordinary individuals from colonial times to the twentieth century.

### **HIST 3110 - American Ideas and Culture**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

This course will look at key transformations in American cultural and intellectual history. Subjects will include the history of religion, the changing nature of political ideology, and transformations in who creates and controls entertainment, leisure and literature in American society. The course will use novels, sermons, essays, movies, museums, paintings, and music as tools for understanding American cultural life.

### **HIST 3130 - U.S. Urban History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Examines themes in social, economic and cultural development of American cities from the colonial era to the present. Key topics will include the process of urbanization and the ways in which various social groups and classes adapt to urban life and society. The course will also examine the transformation of urban neighborhoods and ghettos, social reform movements in the city, and the history of urban planning.

### **HIST 3210 - U.S. Constitutional History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The ideas and issues which resulted in the 1787 Constitution. It considers two centuries of America Constitutionalism, focusing on powers and rights, and the role of the Constitution in American culture.

### **HIST 3230 - American Foreign Relations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] Every Other Year**

Diplomatic relations and foreign policy of the United States, with particular emphasis in the "American Century" beginning with the imperialist thrust of 1898.

### **HIST 3250 - Religion in American History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

A history of religion in America from the colonial period (including Native American spirituality) through the early twentieth century. This course will examine religious figures, events, and movements in U.S. history. Particular emphasis will be placed upon the influence of religion in the United States on culture, politics, education, and reform.

### **HIST 3270 - American Environmental History**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The new scholarship in American environmental history, considering the intellectual and material interaction people have had with the environment of North America, from pre-contact to the present.

### **HIST 3280 - American Military History from 1500 to 1890**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] Odd Years**

Significance of military affairs in the context of American political, economic, and social history from the formation of the earliest colonial militias to the pre-World War I preparedness movement. Discusses major wars of this period but also emphasizes such themes as the professionalization of the officer corps, the relationship between war and technology, and civil-military relations.

### **HIST 3290 - American Military History from 1890 to the Present**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Significance of military affairs in the context of American political, economic, and social history from America's entry into World War I to the present. Discusses major wars of this period but also emphasizes such themes as the professionalization to the officer corps, the relationship between war and technology, and civil-military relations.

### **HIST 3350 - History and Philosophy of Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The evolution and practice of Western science from origins to contemporary ideas.

### **HIST 3400 - Principles of Public History**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will consider the theoretical background of public history and its disciplines: historic preservation, museum studies, archives and records administration, and documentary editing. Students will survey, research, and analyze the ways in which history is conveyed to a broad public through museums, monuments, sites, films, and other media outside the classroom or scholarly writings. (Replaces HIST 2500.)

### **HIST 3500 - Historic Preservation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of the historic preservation movement in the United States including the history and evolution of the movement, theoretical origins, current conditions and laws, organizational framework and design philosophies.

### **HIST 3550 - Archives: Principles, Practices & Preservation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an introduction to archival management, in which the students learn how archival institutions obtain, process and manage a variety of archival formats, and how this information is made available to the public generally and to historians in particular.

### **HIST 4010 - Colonial America**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

The colonial origins of the United States to 1763.

### **HIST 4020 - Era of the American Revolution: 1763-1800**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Causes of American Revolution, including the military, diplomatic and social aspects; the formation of the Union under the Articles of Confederation; the Constitution; and the Federalist era.

### **HIST 4030 - New Nation: 1800-1840**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk (odd years)]**

Emphasizes Jefferson's Administration, War of 1812, the Era of Good Feelings, and the Age of Jackson, including the growth of political parties, territorial expansion, sectionalism, and social reform.

### **HIST 4040 - Era of the Civil War and Reconstruction: 1840-1877**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

Slavery and the causes of the Civil War with attention to the political, economic, social, and military aspects of the conflict, including the period of Reconstruction to 1877.

### **HIST 4050 - U.S. in the Gilded Age and Progressive Era: 1877-1919**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

The transformation of the United States following the Civil War and Reconstruction into a modern urban-industrial superpower by the end of the First World War.

### **HIST 4060 - Twentieth-Century United States: 1919-1945**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Developments, historical patterns and conflicts which shaped the modern United States in the Twenties, the Great Depression and the Second World War.

### **HIST 4070 - Twentieth-Century United States since 1945**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Summer [Full Sem Online]**

The United States from 1945 to the present, including investigations of the Cold War, the Civil Rights Movement, the affluent society, modern politics, the Vietnam and Watergate crises and contemporary issues.

### **HIST 4110 - History of the American West to 1900**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Explores the history of the Trans-Mississippi West region of the United States from 1500 to the 1890s. The course considers the varied experiences of its peoples and the myth of the West in American culture.

### **HIST 4120 - The American West since 1900**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Explores the history of the Trans-Mississippi West Region during the twentieth century, to include analysis of such issues as water use and allocation, population growth, land use, exploitation of resources, conservation, the federal presence, tourism, and threats to the environment.

### **HIST 4130 - History of Utah**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

**[Taught on-line when not offered face-to-face]**

A study of Utah history from its Native American beginnings through the 20th Century-emphasizing political, economic and social developments.

### **HIST 4210 - Ancient History**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

The ancient Near East and Mediterranean world, including the civilizations of Greece and Rome, from approximately 3500 B.C.E. to 475 C.E. This course examines the origins of civilization and traces the development of culture, emphasizing the religious, political, and intellectual legacy of the ancient world.

### **HIST 4220 - History of the Middle Ages 300-1300**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A survey of Europe during the Middle Ages emphasizing the religious, political, and cultural institutions shaping this period.

### **HIST 4230 - Renaissance and Reformation - Europe: 1300-1660**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Examines the cultural, religious, political and economic factors that affected Europe from the end of the Middle Ages to the mid-1600s. Special emphasis is given to the Renaissance and Reformation as vital forces at work during the period.

### **HIST 4240 - Absolutism, Enlightenment and Revolution - Europe: 1660-1815**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Examines the political, economic, social, and cultural factors that affected Europe during the period. Special consideration is given to the Enlightenment as a cultural phenomenon and to European-wide revolution and counter-revolution in the late eighteenth century.

### **HIST 4250 - Nineteenth-Century Europe**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A survey of European history from the fall of Napoleon to the beginning of the First World War. The course will focus on the lingering impact of the political and economic revolutions of the late eighteenth century on the politics, culture, and social development of the nineteenth. Major consideration will be given to liberalism, romanticism, socialism, nationalism, imperialism, industrialization, science, and the rise of mass society.

### **HIST 4260 - Twentieth-Century Europe**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This overview of European history begins with the First World War and concludes with an assessment of the challenges and opportunities presented to Europe by the current world order. The course will examine the ways in which Europe has been shaped by the rise and fall of totalitarian movements, war, genocide, colonial and post-colonial politics, the Cold War, globalization and the shift to a post-industrial economy.

### **HIST 4280 - History of Christianity in Europe**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A history of the development and impact of Christianity within Europe through the twentieth century. This course will examine how Christianity affected European society, culture, politics, and science; and how these affected the institutions within Christianity. Particular emphasis will be placed on the early growth of Christianity, medieval changes, the Reformation, and spirituality in the industrial age.

### **HIST 4310 - History of Russia to 1917**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Russia's political, economic, social and cultural institutions from pre-history to 1917, emphasizing dynastic leaders, expansion, religion and other significant forces of change. Includes an analysis of both foreign and domestic policies that led to world war and revolution.

### **HIST 4320 - Russia since 1917**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Analyzes the political, economic, military, diplomatic, social, and ideological problems, crises, and programs from the Russian Revolutions of 1917 to the present.

### **HIST 4330 - History of England to 1485**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A survey of English history to 1485 with special consideration given to England's cultural, political, economic and social development during the Middle Ages.

### **HIST 4335 - Tudor and Stuart England**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A survey of English history during the Tudor and Stuart periods (1485-1714). Emphasis will be placed on the social, cultural, political, religious and economic development of England during this period.

### **HIST 4340 - History of England since 1714**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A survey of English history from 1714 to the present. Special emphasis will be given to England's cultural, political, economic, and social development during the Industrial Revolution, the Victorian era, and the twentieth century.

### **HIST 4350 - History of Modern Germany**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

German social-political, economic and cultural developments from the eighteenth century to the present. Topics include the Prussians, Classicism, Revolution, the Age of Bismarck, industrialism and warfare, and the 20th Century.

### **HIST 4370 - History of Modern France 1789-present**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Examines the political, social, and cultural history of France from the outbreak of the French Revolution to the present. Attention will focus on political ideologies, religious and philosophical movements, artistic and literary expression, and changes in the social environment. The course will also attend to the impact of France and French culture on the world and to recent challenges presented to French national identity by globalization.

### **HIST 4410 - History of Spain and Portugal**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A survey of the political, economic, social and cultural development of Spain and Portugal from the beginning to the present.

### **HIST 4450 - History of Modern Eastern Europe since 1815**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Examines the political, economic, and social factors that have shaped the history of this region from 1815 to the present.

### **HIST 4500 - Teaching Social Studies in Grades 5-12**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Materials and methods of teaching for skill, concept and value development in middle, junior high and senior high school social studies. (Required of all majors in Social Science area).

### **HIST 4510 - Twentieth Century World**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

The political, economic, and social forces of the twentieth century since World War I. Emphasis is placed on global relationships, the rise of mass society, and conflict among cultures in an era of accelerating change.

### **HIST 4530 - Far Eastern History**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

A survey of the political, economic, social and cultural development of China, Japan, and Korea from the pre-modern era to the present, with particular emphasis given to the 19th and 20th centuries.

### **HIST 4550 - Southeast Asian History**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

A survey of the political, economic, social and cultural development of Southeast Asia from the pre-modern era to the present, with particular emphasis given to the 19th and 20th centuries.

### **HIST 4590 - Middle Eastern History**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem] even years**

A survey of the political, economic, social and cultural development of the Middle East from the rise of Islam to the present with particular emphasis on the 19th and 20th centuries.

### **HIST 4610 - History of Africa**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Africa from earliest times to the twentieth century, with emphasis on the Sub-Sahara from its ancient kingdoms through the travails of the slave trade, European colonialism, and the independence movement.

### **HIST 4630 - History of Ancient and Colonial Latin America**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

History of ancient Native Latin America through the Spanish and Portuguese takeover and colonization.

### **HIST 4650 - Modern Latin America**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A survey of the political, economic, social and cultural developments of the Latin American nations to the present.

### **HIST 4670 - History of Mexico**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A survey from ancient Native American times, the colonial experience, and the nation including the U.S. Southwest until 1848.

### **HIST 4710 - Special Issues and Topics in American History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

When offered will focus on a specific and detailed subject in American History. Students may repeat this course for credit when the topic offered is substantially different than the previous class. May be repeated 3 times with a maximum of 9 credit hours.

### **HIST 4720 - Special Issues and Topics in European History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

When offered will focus on a specific and detailed subject in European History. Students may repeat this course for credit when the topic offered is substantially different than the previous class. May be repeated 3 times with a maximum of 9 credit hours.

## **HIST 4730 - Special Issues and Topics in Global and Comparative History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

When offered will focus on a specific and detailed subject in global or comparative history. Students may repeat this course for credit when the topic offered is substantially different than the previous class. May be repeated 3 times with a maximum of 9 credit hours.

## **HIST 4810 - Experimental Courses**

**Credits: (3)**

## **HIST 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent reading under the supervision of a department member on special topics in History. For each hour of credit approximately 1500 pages of material will be read. A written assignment on this material will also be completed. No more than three hours will count towards a major or minor. Prerequisite: Instructor approval.

## **HIST 4860 - Internships in Historical Studies**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students. Faculty supervised off-campus internships in public history institutions. Each internship is individually established and provides students with practical experience and the opportunity to apply and learn new professional skills. Six hours of internship are required for the Public History Emphasis. No more than six hours will count towards a major or minor. Prerequisite: Junior-class standing and permission of instructor and field supervisor. May be repeated 3 times with a maximum of 9 credit hours.

## **HIST 4920 - Short Courses, Workshops, and Special Programs**

**Credits: (1-6)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. No more than six hours will count towards a major or minor.

## **HIST 4985 - Historical Research and Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course teaches research and writing skills and is designed to prepare History students for History 4990. Students will learn how to find a research topic, develop a thesis, identify primary sources, cite those sources, and prepare a

research proposal. The course will expose students to models of good historical writing and argumentation which will serve as models for their own writing.

### **HIST 4990 - Senior Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A seminar for History majors requiring the completion of an extensive thesis project. Prerequisite: HIST 4985.

### **HIST 6010 - Colonial America**

**Credits: (3)**

The colonial origins of the United States to 1763.

### **HIST 6020 - The Era of the American Revolution 1763-1800**

**Credits: (3)**

Causes of American Revolution, including the military, diplomatic and social aspects; the formation of the Union under the Articles of Confederation; the Constitution; and the Federalist era.

### **HIST 6040 - The Era of the Civil War and Reconstruction 1840-1877**

**Credits: (3)**

Slavery and the causes of the Civil War with attention to the political, economic, social, and military aspects of the conflict, including the period of Reconstruction to 1877.

### **HIST 6130 - History of Utah**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A study of Utah history from its Native American beginnings through the 20th Century, emphasizing political, economic and social developments.

### **HIST 6590 - Middle Eastern History**

**Credits: (3)**

The Middle East from the rise of Islam to the present with emphasis on the 19th and 20th centuries.

### **HIST 6610 - History of Africa**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Africa from earliest times to the twentieth century, with emphasis on the Sub-Sahara from its ancient kingdoms through the travails of the slave trade, European colonialism, and the independence movement.

### **HIST 6710 - Reading Seminar in American History**

**Credits: (3)**

When offered will focus on a specific subject in American History. It is assumed that these topics would generally be non-repetitive or repeated only infrequently based on the demand for the course and the instructor assigned to it. Students would be assigned readings on various aspects of the topic and respond through discussion in a seminar setting and written work.

### **HIST 6720 - Reading Seminar in European History**

**Credits: (3)**

When offered will focus on a specific subject in European History. It is assumed that these topics would generally be non-repetitive or repeated only infrequently based on the demand for the course and the instructor assigned to it. Students would be assigned readings on various aspects of the topic and respond through discussion in a seminar setting and written work.

### **HIST 6760 - Reading Seminar in World History**

**Credits: (3)**

When offered will focus on a specific subject in World History. It is assumed that these topics would generally be non-repetitive or repeated only infrequently based on the demand for the course and the instructor assigned to it. Students would be assigned readings on various aspects of the topic and respond through discussion in a seminar setting and written work.

### **HIST 6830 - Directed Readings**

**Credits: (1-3)**

Independent readings under the supervision of a department member on special topics in History. For each hour of credit approximately 1500 pages of material will be read. A written assignment on this material will also be completed. No more than three hours will count towards a major or minor. Prerequisite: Instructor approval.

### **HLTH 1020 LS - Science and Application of Human Nutrition**

**Credits: (3)**

(available online) Human nutrition is the platform to study the nature and integration of science across disciplines and in society through applied problem solving and data analysis. Nutritional balance and good health are explored in context of the levels of organization, metabolism and homeostasis, genetics and evolution, and ecological interactions. This course is taught Web enhanced.

### **HLTH 1030 SS - Healthy Lifestyles**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

A systematic approach to promote health enhancing behaviors related to the prevention of disease and achievement of optimal health. Focuses on the total person with a consideration of the mental, emotional, intellectual, social, physical, and environmental dimensions which impact human health.

### **HLTH 1110 - Stress Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

An introductory course focusing on the causes of stress, recognizing personal stressors and life change management for stress control.

### **HLTH 1300 - First Aid: Responding to Emergencies**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Training the lay person to respond correctly in emergencies and act as the first link in the emergency medical service system. Course leads to American Red Cross certification in Adult, Infant and Child CPR and First Aid: Responding to Emergencies. Cross listed with Athletic Training.

### **HLTH 2220 - Prenatal and Infant Nutrition**

**Credits: (2)**

This course focuses on nutrition and diet as they apply to birth outcome, the maintenance of maternal health, and the growth of the infant. Breastfeeding and community programs will be discussed in support of maternal and infant health. Prerequisite: NUTR 1020 or HLTH 1020.

### **HLTH 2300 - Emergency Response**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Meets the needs of the non-health care professional who has a duty to respond in an emergency. Provides more skills and in-depth training than the First Aid: Responding to Emergencies course. Course leads to American Red Cross certification in Emergency Response and CPR for the Professional Rescuer. Cross listed with AT 2300.

### **HLTH 2400 - Mind/Body Wellness**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Promotion of emotional wellness and understanding the body, mind, spirit connection. Required by the Utah State Board of Education for endorsement in health education.

### **HLTH 2420 - Childhood and Adolescent Nutrition**

**Credits: (2)**

The effects of nutrition and diet on child growth, health and behavior are explored from toddler through adolescence. The processes of growth and puberty provide the foundations for understanding nutritional support. Common nutritionally-related problems such as obesity, anemia, and eating disorders are also addressed. Prerequisite: NUTR 1020 or HLTH 1020.

### **HLTH 2700 - Consumer Health**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem]**

**Summer [Full Sem, 1st Blk, Online]**

Knowledge and skills relating to consumption of health products and services, including advertising and health, quackery, alternative health care, economics of health care, etc.

### **HLTH 2800 - Individual Projects**

**Credits: (1-3)**

A comprehensive study or project in the field of Health Education. Hours to be arranged. May be repeated 2 times up to 3 credit hours.

### **HLTH 2890 - Cooperative Work Experience**

**Credits: (1-6)**

Open to all students in Health who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. May be repeated 5 times up to 6 credit hours.

### **HLTH 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**As Needed**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

### **HLTH 3000 - Foundations of Health Promotion**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

Emerging trends and roles of health education within occupational, medical, community, and school settings including history, philosophy, current practices. Prerequisite: HLTH 1030.

### **HLTH 3050 - School Health Program**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Designed to prepare the prospective teacher for their responsibilities in administering the functions of the School Health Program, including: health services, healthful school environment, and health education.

### **HLTH 3100 - Applications of Technology in Health Promotion**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is an exploration of current and future uses of technology in the health promotion fields. Prerequisite: Completion of Computer & Information Literacy requirement or permission of instructor.

### **HLTH 3150 - Community Health Agencies and Services**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

An overview of public and community health including history, management, prevention and epidemiology of disease. Emphasis on the role of community and government health agencies regarding health promotion and disease prevention activities. Prerequisite: HLTH 3000 or HLTH 3050.

### **HLTH 3160 - Principles of Health Behavior**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The course provides a comprehensive overview of theories and models that explain and modify health behaviors. The models and theories are viewed from a multidisciplinary perspective and are applied to health behaviors among both normal and special populations. Prerequisite: HLTH 3000.

### **HLTH 3200 - Methods in Health Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Designed to appraise and utilize the different methods and aids used in teaching health and lifestyle management in the schools, community, worksite, and health care settings. Students develop skills in organizing, presenting, and evaluating learning experiences presented to target populations in the various settings. Prerequisite: HLTH 3000 or HLTH 3050 or ESS 2200.

### **HLTH 3320 - Health and Nutrition in the Older Adult**

**Credits: (3)**

The developmental process of late adulthood with focus on the physiological age-related changes provides the foundation

for understanding physical, mental, and social health and well-being in the older adult. Nutrition and exercise assessments and prescriptions, clinical services, community and social support services, complementary and alternative medicine, and other topics are explored in the context of promoting healthy aging. Prerequisite: NUTR 1020 or HLTH 1020.

### **HLTH 3400 - Substance Abuse Prevention**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Study of legal and illegal drugs from a pharmacological, historical, psychosocial, and behavioral perspective. Emphasis on primary prevention concepts and responsible consumerism. Education students can receive "Substance Abuse Certification" from the Utah State Office of Education.

### **HLTH 3420 - Multicultural Health and Nutrition**

**Credits: (3)**

The application and understanding of social, religious, economic and aesthetic qualities of foods provides the knowledge for the explorations of the food patterns of various cultures. The understanding of world food problems as they pertain to the health will also be discussed. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320. This course is taught Web enhanced.

### **HLTH 3500 - Human Sexuality**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A survey course of the biomedical and psychosocial forces which shape our sexuality. The focus will be upon the scholarly study of the biological, social, psychological, and spiritual dimensions of human sexuality.

### **HLTH 4013 - Health Promotion Research and Assessment**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem, Online]**

Application of research methods used both in assessing individual and community needs for health education, and in assessing the effectiveness of health education programs. Prerequisite: HLTH 3000 and HIM 3200.

### **HLTH 4150 - Needs Assessment & Planning Health Promotion Programs**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Conducting needs assessment and planning health promotion programs in a community, occupational, school or clinical setting. Prerequisite: HLTH 3000.

### **HLTH 4220 - Women's Health Issues**

**Credits: (3)**

A feminist perspective and analysis of the psychological, cultural and political health related issues that impact women throughout the life span. Prerequisite: Upper division standing or consent of instructor. (Cross listed with Women's Studies)

### **HLTH 4250 - Contemporary Health Issues of Adolescents**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Provides professionals who work with adolescents an overview of both the school health program and health issues prevalent among teens.

### **HLTH 4300 - Health Education in the Elementary School**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides elementary school teachers the resources and skills needed to teach the Utah Healthy Lifestyles curriculum.

### **HLTH 4700 - Wellness Coaching**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Wellness coaching provides a highly effective and focused approach towards improving people's individual health habits and involves coaching people towards achieving their personal, health, and wellness goals. Students with an interest in wellness coaching will gain a broad overview of the field including an introduction to the application of wellness coaching tools, theory, concepts and techniques. Prerequisite: HLTH 2400, HLTH 3200.

### **HLTH 4800 - Individual Projects**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A comprehensive study or project in the field of Health Education. Hours to be arranged for seniors only. May be repeated 2 times up to 3 credit hours.

### **HLTH 4860 - Field Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Work experience which applies prior academic learning in a supervised setting. Prerequisite: Consent of faculty supervisor prior to registration. May be repeated 5 times up to 6 credit hours.

#### **HLTH 4890 - Cooperative Work Experience**

**Credits: (1-6)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

A continuation of HLTH 2890. May be repeated 5 times up to 6 credit hours.

#### **HLTH 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**  
**Typically taught:**  
**As Needed**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

#### **HLTH 4990 - Senior Seminar**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

This is a capstone course of Health Promotion seniors only. Summarizes the experiences of the Health Promotion Major, addresses future alternatives and prepares students for employment now and/or graduate study.

#### **HLTH 6250 - Contemporary Health Issues of Adolescents**

**Credits: (2)**  
**Typically taught:**  
**Fall [Online]**  
**Spring [Online]**

Provides professionals who work with adolescents an overview of both the school health program and health issues prevalent among teens.

#### **HLTH 6300 - Health Education in the Elementary School**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Provides elementary school teachers the resources and skills needed to teach the Utah Healthy Lifestyles curriculum.

## **HNRS 1110 HU - Introduction to Honors: The Construction of Knowledge**

### **Credits: (3)**

An interdisciplinary class introducing students to the different ways university disciplines see the world and construct meaning. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 1500 PS - Perspectives in the Physical Sciences**

### **Credits: (3)**

#### **Variable Title Course**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary approach to the physical sciences. This introductory class deals with basic concepts, problems and issues of the physical sciences. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 1510 LS - Perspectives in the Life Sciences**

### **Credits: (3)**

#### **Variable Title Course**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary approach to the life sciences. This introductory class deals with basic concepts, problems and issues of the life sciences. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 1520 SS - Perspectives in the Social Sciences**

### **Credits: (3)**

#### **Variable Title Course**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary introduction to the social sciences. This introductory course deals with the basic concepts, methods, models and issues of the social sciences. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 1530 CA - Perspectives in the Creative Arts**

### **Credits: (3)**

#### **Variable Title Course**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary introduction to the creative arts. This introductory class deals with basic concepts, problems and issues of the creative arts. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 1540 HU - Perspectives in the Humanities**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary approach to the arts and humanities. This introductory class deals with basic concepts, problems and issues of the arts and humanities. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 2010 HU - Exploring Key Concepts in the Disciplines: Humanities**

**Credits: (3)**

**Variable title course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will focus on the history and development of a central concept in the Humanities, using original sources as the primary class texts. Prerequisite: Prior to taking this course students are strongly advised to take HNRS 1110 HU and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 2020 CA - Exploring Key Concepts in the Disciplines: Creative Arts**

**Credits: (3)**

**Variable title course**

This course will focus on a central concept in the Creative Arts, using original sources as the primary class texts. Prior to taking this course students are strongly advised to take HNRS 1110 and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 2030 PS - Exploring Key Concepts in the Disciplines: Physical Sciences**

**Credits: (3)**

**Variable title course**

This course will focus on a central concept in the Physical Sciences, using original sources as the primary class texts. Prior to taking this course students are strongly advised to take HNRS 1110 and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 2040 LS - Exploring Key Concepts in the Disciplines: Life Sciences**

**Credits: (3)**

**Variable title course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will focus on a central concept in the Life Sciences, using original sources as the primary class texts. Prior to taking this course students are strongly advised to take HNRS 1110 and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 2050 SS - Exploring Key Concepts in the Disciplines: Social Science**

**Credits: (3)**

**Variable title course**

This course will focus on the history and development of a central concept in the Social Sciences, using original sources as the primary class texts. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 2110 HU/SS - Intellectual Traditions: Great Ideas of the West in the Classical and Medieval Eras**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A survey of influential ideas, literature and events that characterize antiquity and the middle ages in the Western world. This course is offered either for HU credit (2110A) or for SS credit (2110B). Prior to taking this course students are strongly advised to take HNRS 1110 and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 2120 HU/SS - Intellectual Traditions: Great Ideas of the West in the Modern Era**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A survey of the great ideas, literature and events that characterize Western civilization from the Renaissance to relativity. This course is offered either for HU credit (2120A) or for SS credit (2120B). Prior to taking this course students are strongly advised to take HNRS 1110 and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 2130 HU/SS/DV - Intellectual Traditions: Great Ideas of the East**

**Credits: (3)**

**Variable Title Course**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A survey of the great ideas, literature, religions and philosophical foundations of Asia. This course is offered either for HU credit (2130A) or for SS credit (2130B). This course also fills the Diversity requirement. Prior to taking this course students are strongly advised to take HNRS 1110 and a 1000-level HNRS "Perspectives" General Education course. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 2830 - Directed Readings, Projects, and Research**

**Credits: (1-3)**

Individualized tutorial with a professor who may be selected from many possible disciplines. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 2900 - Honors Colloquium**

**Credits: (1-3)**

Varied topics as described in the semester schedule; topics will be drawn from disciplines across the entire campus; may be taken twice up to 3 credits with different course content: restricted to lower division credit. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

In order to provide flexibility and to meet many different needs, a number of specific offerings are possible using this catalog number. When the number is used it will be accompanied by a specific and descriptive title. The specific title with the credit authorized for the particular offering will appear on the student transcript. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 3110 - Great Books**

**Credits: (3)**

A selection of books that embody some of the great ideas, literature, and events influential in history. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 3900 - Honors Colloquium**

**Credits: (3)**

Varied topics as described in the semester schedule; topics will be drawn from disciplines across the entire campus. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 4830 - Directed Readings: Senior Project Research**

**Credits: (1-3)**

This class is taken in preparation for the HNRS 4990 Honors Senior Project. Class time is TBA, but students working towards their Honors Senior Project usually meet about seven times during the semester. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 4900 - Honors Colloquium**

**Credits: (2-4)**

Varied topics as described in the semester schedule; topics will be drawn from disciplines across the entire campus. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

### **HNRS 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for current offering under this number. The specific title and credit authorized will appear on the student transcript. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HNRS 4990 - Honors Senior Project**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Must be taken by students whose major department offers no Senior Project course; or may be taken in conjunction with a departmental Senior Project course when the project merits additional credit. For the University Honors designation, a Senior Project/Thesis must be completed. A student may repeat a course number for up to 6 credits if the course name, course syllabus, and faculty/instructor teaching the course is different.

## **HTHS 1101 - Medical Terminology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

A comprehensive overview of medical language. This course takes a body-systems approach to presenting the medical terminology associated with anatomy, physiology, diseases and treatments. Designed for all students interested in health sciences or a career in medicine.

## **HTHS 1103 - Introduction to Health Careers and Care in a Diverse Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will compare and contrast diverse health careers. Students will discuss the history, providers, and delivery models involved in Health Care. The course will explore how such factors as economic class and status in groups such as gender, age, and physical ability affect health care professionals. Students will also explore numerous fields and opportunities in the Health Care Industry.

## **HTHS 1108 - Biocalculations for Health Professions**

**Credits: (5)**

**Typically taught:**

**(Offered only as needed)**

Fundamental mathematical concepts using health professions applications. Topics include: basic arithmetic, pre-algebra, beginning algebra, geometry, and statistics applied to solutions, dosage calculations, electrolytes, acid base balance, circulatory and urinary function, pulmonary function testing and energy and metabolism. This course does not meet the University's quantitative literacy requirement.

## **HTHS 1110 LS - Integrated Human Anatomy and Physiology I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Integrated Human Anatomy and Physiology I is the first semester of a two-semester anatomy and physiology sequence that focuses on the structure and function of the human body. Course module topics include: the atomic and molecular levels of organization, cell biology and metabolism, microbiology, and the integumentary, skeletal and muscular body systems. Weekly integrated laboratory sessions serve to enhance the lectures through discussions, data analysis, hands-on activities, and activities utilizing cadaver specimens and interactive digital cadaver technology. This course meets the life science (LS) general education learning outcomes for the university. Completion of HTHS 1101 is strongly recommended before taking HTHS 1110.

## **HTHS 1111 - Integrated Human Anatomy and Physiology II**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Integrated Human Anatomy and Physiology II is the second semester of a two-semester anatomy and physiology sequence that focuses on the structure and function of the human body. Course module topics include: the nervous, endocrine, cardiovascular (blood), cardiovascular (heart and blood vessels), respiratory, digestive, urinary, and reproductive body systems. Laboratory sessions serve to enhance the lectures through discussions, data analysis, hands-on activities, and activities utilizing cadaver specimens and interactive digital cadaver technology. Prerequisite: HTHS 1110 with a grade of C or better.

## **HTHS 1120 - Case Studies in Health Sciences**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Case Studies in Health Sciences is a course designed for students wishing to explore the interdisciplinary nature of health care using case study models. Each case study focuses on a disease process. Progression through each case study involves a review of anatomy and physiology, pathophysiology, medical terminology and a study of a variety of health professionals including their educational and training requirements. Additionally, the student will explore key medical diagnostic tests (e.g. laboratory, imaging) used in patient disease diagnosis, management and prevention. The course emphasizes the importance of the team approach to patient care. Prerequisite: HTHS 1110 and HTHS 1111 or an equivalent course in anatomy and physiology. Recommended prerequisite: HTHS 1101.

## **HTHS 1130 - Common Medicines**

**Credits: (3)**

**Typically taught:**

**(Offered only as needed)**

This is an introductory course that will provide information regarding proper drug usage for those without significant backgrounds in the Biological Sciences. The course primarily discusses over-the-counter medicines as well as prescription drug groups that are commonly used by the public. The overall objective of this course will be to provide information in

such a way that individuals are able to make wise and appropriate choices, are more aware of possible drug-related problems, and will become well-informed consumers. May be repeated twice with a maximum of 6 credit hours.

### **HTHS 2230 - Introductory Pathophysiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

An introduction to the pathophysiologic disruptions of normal human body function, this course will emphasize disease mechanisms and the body's response to restore homeostasis. Units of study include foundational concepts of cellular injury, genetics, acid-base, electrolyte, fluid balance and functional alterations of the immune, hematologic, nervous, endocrine, cardiovascular, respiratory, urinary, musculoskeletal, and reproductive systems. Prerequisite: Completion of HTHS 1110 and HTHS 1111, or ZOOL 2200, or an equivalent human physiology course with a grade of C or better. Concurrent enrollment in HTHS 2231 is recommended.

### **HTHS 2231 - Introductory Pathophysiology Laboratory**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Laboratory and computer exercises involving analysis of both clinical and laboratory data. Students evaluate signs, symptoms, diagnosis, and treatment of various pathological conditions and diseases. One two-hour laboratory session per week. Co-Requisite: HTHS 2230.

### **HTHS 2240 - Introduction to Pharmacology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Introductory pharmacology course which covers pharmacological principles including modes of action, uses, modes of excretion, and patient side effects of various drug classes. The drugs are presented in a "system approach" with emphasis on medications utilized in diagnosing and treating diseases associated with the various body systems. Class format includes a 3 hour lecture class with students participating in oral presentations and case studies. Recommended prerequisite: HTHS 1101, HTHS 1110 and HTHS 1111.

### **HTHS 2830 - Health Sciences Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Directed Readings in Health Sciences areas. Must have departmental approval. May be repeated twice with a maximum of 3 credit hours.

## **HTHS 2904 - Information Resources in the Health Professions**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Intended for students interested in the health professions, this one-credit hour course will assist in developing information literacy and research skills. Students completing this course will be able to use an academic library and the Internet to successfully identify, access, evaluate and use information resources to support academic and clinical success and lifelong learning. Emphasis is placed on resources in the health sciences.

Cross-listed as LIBS 2904.

## **HTHS 2990 - Health Sciences Seminar**

**Credits: (1)**

**Typically taught:**

**(Offered only as needed)**

Presentations, group discussions and analysis of selected topics, designed to prepare the Health Science major for career opportunities in the job market and applying for Health Professions professional programs. May be repeated twice with a maximum of 3 credit hours.

## **HTHS 3240 - Pharmacology Principles and Clinical Applications**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Pharmacology Principles and Clinical Applications is an upper division course designed for students who are pursuing a career in health, health education, or the health professions. This course will focus on pharmacokinetics, pharmacodynamics, mechanisms of drug action, evidenced-based medicine, organ-systems approach to differential therapeutics, and topics of current relevancy. In addition, students will present on a pharmacology case or topic of their choice. Prerequisite: HTHS 1111 or ZOOL 2200, or an equivalent human physiology course. HTHS 2230 - Introductory Pathophysiology is also recommended.

## **HTHS 3328 - Pathophysiology of Cells and Tissues**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Pathophysiology of Cells and Tissues is a course that will emphasize disease mechanisms and the body's response to restore homeostasis by presenting an orientation to disease as disordered physiology. This course describes the etiology, developmental considerations, pathogenesis and clinical manifestations of disease processes. Units of study focus on the interactions of cellular injury mechanisms, genetic disorders, neoplasia, and inflammatory and immune disorders. WSU Online class only. Prerequisite: HTHS 1111, ZOOL 2200, or equivalent human physiology course. May be repeated once for credit.

## **HTHS 3329 - Pathophysiology of Organs and Systems**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Pathophysiology of Organs and Systems is a course that will emphasize the mechanisms of disordered physiology that underlie disease conditions by analyzing the mechanism(s) of different disease states. Particular attention will be given to etiology, pathogenesis, developmental and environmental influences, and clinical manifestations. Units of study focus on the nervous, endocrine, cardiovascular, respiratory, urinary, musculoskeletal, and reproductive systems. WSU Online class only. Prerequisite: HTHS 1111 or ZOOL 2200, or equivalent human physiology course. May be repeated once for credit.

## **HTHS 3410 - Foundations of Health Science Technology**

**Credits: (3)**

**Typically taught:**

**(Offered only as needed)**

The purpose of this course is to teach the student fundamental technological and pharmacological principles used in dental and medical equipment. It will be focused on criteria used by dental and medical personnel to make technology and pharmacology decisions.

## **HTHS 3412 - Health Science Technology Applications**

**Credits: (3)**

**Typically taught:**

**(Offered only as needed)**

The purpose of this course is to teach students fundamental technological and pharmacological principles used in specific medical devices. The students will develop an understanding of different health science manufactured products and services and will receive exposure to industry representatives. Prerequisite: HTHS 3410.

## **HTHS 4010 - Interdisciplinary Health Care Teams**

**Credits: (3)**

**Typically taught:**

**(Offered only as needed)**

This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact and learn in the interdisciplinary environment of a health care setting. Cross-listed with DENT 4010 and NRSG 4010. May be repeated twice for credit.

## **HTHS 4850 - Study Abroad**

**Credits: (1-6)**

**Variable Title**

This course provides opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated 5 times for 6 credit hours.

## **IDT 1010 CA - Introduction to Interior Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

Explores the interior design profession, professional certification and licensure. Students learn the various phases of the design process and develop spaces that relate to sustainability, accessibility and human factors. Study of architectural and furniture styles are explored. Students develop aesthetic judgment as they create spaces that utilize the elements and principles of design and color theory. May be repeated twice.

## **IDT 1020 - Presentation Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Exploration of materials and application of methods required for visual communications with interior design presentation. Emphasis in conceptualizing and quick-sketching techniques. Introduction to oral and technical visual presentation methods such as Adobe Illustrator, InDesign and Google SketchUp are incorporated into curriculum.

## **IDT 1050 - Architectural Drafting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to the fundamentals of drafting of architectural working drawings using hand and basic technical skills. Graphic symbols, lettering and procedures used in developing a set of residential plans, including architectural standards and building requirements are studied.

## **IDT 1860 - Practicum**

**Credits: (1-2)**

A course of occupational experiences in the interior design industry. A plan is created by the instructor and student to provide meaningful training in the student's career field. May be repeated for a maximum of 2 credit hours. Prerequisite: IDT 2020, IDT 2035.

## **IDT 2010 - Sustainability I: Textiles and Soft Materials**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of fibers, yarns, fabric structure, codes, finishes, and sustainable manufacturing practices and products-as they relate to residential and commercial interiors. Three-dimensional projects may be required as part of this course.

## **IDT 2020 - Computer-aided Design and Drafting**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Application of basic computer-aided drafting and design as it relates to technology in interior design. Layout, modeling, rendering, and 3-D projects are featured as part of this course.

### **IDT 2035 - Design Process/Space Planning**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Experiences in programming, research development, and schematic design development. Emphasis on problem solving and space planning for residential and non-residential spaces. Design charettes may be included as part of the course curriculum. Prerequisite: IDT 1050.

### **IDT 2040 - Architectural Detailing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course develops interior detailing technical skills, emphasizing stairways, fireplaces, ceilings, floor systems, and millwork (built-in furniture) details for residential and commercial spaces. Accessibility standards are discussed and incorporated into construction drawings and custom millwork designs. Life safety issues in regards to door, frame and hardware specification. Preparation of construction drawings, specifications, door, window and finish schedules for use by the trade. Three-dimensional projects may be required as part of this course. Prerequisite: IDT 2020.

### **IDT 2050 - Codes**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

The study and application of interior building codes that insures the health, safety, and welfare of individuals who occupy the structure.

### **IDT 2060 - Sustainability II: Materials, Hard Surfaces, and Specifications**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Exploration and research of interior finishes, materials, and sustainable practices. Practical application for specifying and installation of materials will be emphasized. Three-dimensional projects may be required as part of this course. An interdisciplinary design charrette is featured as part of this course.

### **IDT 2080 - Advanced Interior Architectural Drafting and Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course continues the study of technical digital interior architectural drafting and design using the latest technologies for interior construction documents and interior architectural renderings.

### **IDT 2820 - Historical Interiors**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Historical research of interior furnishing and architecture from Egyptian through English Victorian. Oral presentations, research projects and/or three-dimensional projects may be required as part of this course. This course may be listed among credits for the IDT Study Abroad program.

### **IDT 2830 - Directed Readings**

**Credits: (1-3)**

Individually chosen readings or specialized topics supervised by a faculty member. Instructor's approval required. May be repeated up to 3 credit hours.

### **IDT 2860 - Practicum**

**Credits: (1-2)**

**Typically taught:**

**Spring [Full Sem]**

A course of occupational experiences in the interior design industry. Students are given opportunity to apply the design process to a real-life project, often with a service-learning emphasis. Instructor's approval required. This course may be listed among credits for the IDT Study Abroad program. Prerequisite: IDT 2020 and IDT 2035. May be repeated up to 2 credit hours.

### **IDT 2990 - Interior Design Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Professional issues presented by guest lecturers, tours, and current discussions in interior design. Due to the nature of the curriculum, not all lectures, tours and experiences may be held in a traditional setting or time. This course may be listed among credits for the IDT Study Abroad program. It is encouraged that design majors enroll in this course each semester. May be taken for credit/no credit. May be repeated for credit up to 8 times.

### **IDT 3000 - Lighting Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of lighting principles, lighting systems, light sources, layered lighting concepts, calculation of lighting levels. Voice and data telecommunications systems, communication of lighting design and specifications including budgetary limitations are covered. Lighting plans, switching plans and electrical plans are explored. Focus is given to life safety concerns, codes, and accessibility. Also, exploration of daylighting principles and energy efficiency is incorporated. Emphasis is placed on communicating a design solution by practical application of learned principles in project format. An interdisciplinary design charrette is featured as part of this course. Prerequisite: IDT 2020, IDT 2035.

### **IDT 3020 - American and Modern Interiors**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Historical survey and research of interiors, furnishings, and architecture from the 1880's to the present. Application of modern design in today's interior including oral presentations, research projects and/or three-dimensional projects may be required as part of this course. This course may be listed among credits for the IDT Study Abroad program.

Prerequisite: IDT 1020.

### **IDT 3025 - Professional Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of the business aspect of Interior Design. Information will be presented regarding forms and professional practices for the Interior Designer, i.e., ethics, contracts, fees, purchase orders, letters of agreement, business formations and terminology of business practice. Job seeking skills will also be covered, along with professional licensing and certification. An interdisciplinary design charrette is featured as part of this course. Prerequisite: IDT 2050.

### **IDT 3040 - Perspective/Rendering**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Perspective drawing, sketching, and manual and computer-generated rendering techniques are explored and utilized. It is required that IDT 4830 for one credit hour be taken in conjunction with this course. An interdisciplinary design charrette is featured as part of this course.

### **IDT 3045 - Residential Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course focuses on projects that apply the design process to residential interiors. Kitchen and Bath curriculum and NKBA standards are introduced. 20/20 Technologies software is introduced. Design charrettes, local or national competition participation, and/or three-dimensional projects may be featured as part of this course. Prerequisite: IDT 3000 and IDT 3040.

### **IDT 3060 - Kitchen & Bath**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A continuation of residential design is explored in which NKBA guidelines for kitchens and baths is applied to projects. In-depth study of the design of kitchens and baths is the focus. Kitchen and bath-specific 20/20 Software is utilized. Design charrettes and national competition participation are featured as part of this course. Prepares the student for NKBA (National Kitchen and Bath Association) certification exams. Prerequisite: IDT 3045.

### **IDT 4010 - Commercial Studio**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Application of codes as they pertain to egress, accessibility, and fire in commercial interiors. Emphasis on NCIDQ-based commercial projects are featured in this studio course. Prerequisite/Co-requisite: IDT 4020.

### **IDT 4020 - Commercial Design**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Applying the design process to commercial design projects is the focus of this course. Contract, hospitality, healthcare, and global projects are emphasized in which students apply codes knowledge and commercial design strategies and specification of commercial-grade finishes and furnishings. Design charettes and national competition participation are featured as part of this course. Prerequisite: IDT 2035, IDT 2050, IDT 3000, IDT 3040, IDT 2080.

### **IDT 4025 - Senior Program Development**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**

The first of a two-part series for the senior student that produces a comprehensive project that features residential, contract, hospitality and healthcare design emphasis along with a research component. The first four phases of the design process are embarked upon in this semester. The senior student must take IDT 4030 in the same academic year following completion of IDT 4025. Local and national competition participation are featured as part of this course. Instructor approval required for registration for this course. Prerequisite: IDT 4020.

### **IDT 4030 - Senior Project**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

The second of a two-part series for the senior student that produces a comprehensive project that features residential, contract, hospitality and healthcare design emphasis along with a research component. The design process continues in this semester including presentation of the capstone project. The senior student must take IDT 4025 in the same academic year preceding IDT 4030. Local and national competition participation are featured as part of this course. Instructor approval required for registration for this course. Prerequisite: IDT 4025. May be taken twice.

### **IDT 4040 - Portfolio Design**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Developing and presenting both a hard-copy and digital portfolio for job searching in the field of interior design. In addition to the portfolio, student will create a customized resume, business card, and letter of introduction to accompany both the hard-copy and digital portfolio for presentation to prospective employers and clients. Adobe Creative Suite software is used extensively in this course. Local and national competitions are featured as part of this course. Prerequisite: IDT 4025.

### **IDT 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

Individual readings supervised by a faculty member. Junior/Senior level course. Must be taken with the approval of the instructor and in conjunction with IDT 3040. This course may be listed among credits for the IDT Study Abroad program. May be repeated twice for a maximum of 3 credit hours.

### **IDT 4860 - Internship for Interior Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A structured professional-level field experience where the interior design major applies skills through work experience with a qualified interior designer, architect, or design firm. The curriculum also involves research into the field of interior design, professional practice and professional certification. Tours, activities, and field trips may be featured as part of the course curriculum in addition to the on-site experience in the design field. Internship must be approved by the instructor within the first two weeks of the semester.

### **LEAP 2510 - Writing Level VII**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This class prepares students to function successfully in the required university writing classes, ENGL 1010 and ENGL 2010. Students write three to five page essays on academic topics. Students continue to use teacher and writing center resources to edit and revise their work as they expand their ability to write. Paraphrasing, analyzing, summarizing, and documenting sources are emphasized. Students are introduced to library and internet resources. Students continue to practice writing responses and opinions.

### **LEAP 2520 - Reading Level VII**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course focuses on reading, understanding, and dealing with academic topics and course assignments. Using authentic, unadapted texts, this course provides the student with a guided approach in bridging the difficulty level between ESL classes and other academic courses.

### **LIBS 1504 - Information Literacy Competency Exam**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem Online, 1st Blk, 2nd Blk]**

**Spring [Full Sem Online, 1st Blk, 2nd Blk]**

**Summer [Full Sem Online, 1st Blk, 2nd Blk]**

This exam verifies a student's information literacy competency. Review materials are available for students to study for this exam at [libguides.weber.edu/LIBS1504](http://libguides.weber.edu/LIBS1504). The exam must be completed during the block/semester registered, and may be retaken one time within the same block/semester. The grade for this course is credit/no credit. For more information, call (801) 626-7068 or email [infolit@weber.edu](mailto:infolit@weber.edu).

### **LIBS 1704 - Information Navigator**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk, Online]**

**Spring [Full Sem, 1st Blk, 2nd Blk, Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Online]**

Students completing this course will be able to use an academic library and the Internet to successfully identify, access, evaluate and use information resources to support academic success and lifelong learning.

### **LIBS 2504 - Information Resources in History**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem, Online]**

Intended for students interested in history, this one credit hour course will assist them in developing information literacy and basic research skills to support life-long learning. Students will develop skills in identifying, locating, retrieving, documenting and critically evaluating both electronic and print resources that are appropriate for undergraduate research, with an emphasis on resources in history.

### **LIBS 2604 - Information Resources in Education**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, 2nd Blk, Online]**

**Spring [1st Blk, 2nd Blk, Online]**

**Summer [1st Blk, Online]**

Intended for students interested in education, this one-credit hour course will assist in developing information literacy and academic research skills, and an understanding of academic integrity issues unique to the field of education. Students will develop skills in identifying, locating, retrieving, documenting, and critically evaluating both electronic and print resources that are appropriate for undergraduate research, with emphasis in education and related disciplines. Cross-Listed with EDUC 2604.

### **LIBS 2704 - Information Resources in the Business Disciplines**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, 2nd Blk, Online]**

**Spring [1st Blk, 2nd Blk, Online]**

Information Resources in the Business Disciplines is a one credit hour course that will assist students in developing information literacy and basic research skills to support life-long learning. Students will develop skills in identifying, locating, retrieving, documenting, and critically evaluating both electronic and print resources that are appropriate for undergraduate research, with emphasis in the business disciplines. Cross listed with BSAD 2704.

### **LIBS 2804 - Information Resources in the Social Sciences**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Intended for students interested in the social sciences, this one credit hour course will assist them in developing information literacy and basic research skills to support life-long learning. Students will develop skills in identifying, locating, retrieving, documenting and critically evaluating both electronic and print resources that are appropriate for undergraduate research, with an emphasis on resources in the social sciences.

### **LIBS 2904 - Information Resources in the Health Professions**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Intended for students interested in the health professions, this one-credit hour course will assist in developing information literacy and research skills. Students completing this course will be able to use an academic library and the Internet to successfully identify, access, evaluate and use information resources to support academic and clinical success and lifelong learning. Emphasis is placed on resources in the health sciences. Cross-listed as HTHS 2904.

### **LING 4830 - Directed Readings in Linguistics**

**Credits: (1-3)**

Directed readings may be undertaken in the general area of linguistics, whether theoretical or applied. Specific topics are to be selected in consultation with the instructor and the linguistics minor program coordinator. The amount of material to be read, and any written assignments based on the reading, will be at the discretion of the instructor; it will be based on the level of the topic and the degree of difficulty of the reading, consistent with existing departmental or university guidelines. Prerequisite: ENGL 3010 Introduction to Linguistics is a prerequisite for this course. The prerequisite may be waived or replaced by an equivalent at the discretion of the instructor in consultation with the linguistics minor program coordinator. May be repeated twice with a maximum of 3 credit hours.

### **LING 4900 - Variable Topics in Linguistics**

**Credits: (1-3)**

This course will offer opportunities for classroom study beyond those available in the regular course offerings for the linguistics minor. Topics will vary according to the interests of students and the expertise of the instructor; for example, advanced syntax, sociolinguistics, language typology, language and the law, artificial intelligence, neurolinguistics, and language death. The course may be taken more than once with different content. Prerequisite: ENGL 3010 Introduction to Linguistics is a prerequisite for this course. The prerequisite may be waived or replaced by an equivalent at the discretion of the instructor in consultation with the linguistics minor program coordinator. May be repeated twice with a maximum of 3 credit hours.

## **LING 4990 - Centering Experience**

### **Credits: (3)**

The Centering Experience is a capstone/synthesis requirement to be completed by reading texts from a list prepared by members of the Linguistics Minor Advisory Committee. The texts must be central to at least two of the disciplines represented in the minor. The reading will be done either as a directed reading or, enrollment permitting, a seminar, either of which may be team taught. Assessment in LING 4990 will be tailored to the students' interests, and might take the form of a practicum, a project, or a thesis (especially suitable for BIS or Honors students).

## **MACC 6120 - Financial Accounting & Reporting**

### **Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

In-depth coverage of financial accounting and reporting topics from a theoretical and practical standpoint through a combination of reading assignments, classroom lecture/discussion sessions, assignments, cases, and student presentations. Topics include the FASB and the standard-setting process; SEC policy and practice; accounting for leases, post-employment benefits, deferred income taxes, and stock compensation plans.

## **MACC 6130 - Governmental and Nonprofit Accounting**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of governmental and nonprofit accounting concepts including revenue and expense recognition; asset and liability valuation; and reporting, disclosure, and financial analysis. Includes in-depth discussion of the new GASB reporting model for governments and analysis of actual government financial statements produced using the new model.

## **MACC 6160 - Financial Statement Analysis**

### **Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Comprehensive study of the analysis and interpretation of financial statements by external decision makers and the impact of accounting conventions and alternative standards on analytical measures.

## **MACC 6210 - Ethical Considerations & Legal Liability**

### **Credits: (3)**

A study of the ethics espoused by accountants and their professional organizations with attention given to the current legal climate in which accountants operate.

## **MACC 6310 - Advanced Cost Accounting**

### **Credits: (3)**

Advanced cost accounting topics including cost accounting for non-manufacturing organizations, human information processing, activity resource usage, pricing, performance measurement, and non-routine decisions.

### **MACC 6330 - Strategic Management Accounting**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study and analysis of advanced managerial accounting subjects. Examines the impact of accounting information on managerial processes including planning, organizing, and controlling.

### **MACC 6560 - Advanced Auditing & Assurance Services**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Advanced topics of auditing and assurance services including professional and technical aspects of auditing practice, introduction to SEC, ethics and legal responsibilities, fraud, recent auditing developments, sampling techniques for decision making, internal control, and risk assessment.

### **MACC 6570 - Information Systems Auditing**

**Credits: (3)**

Methods, techniques, controls, and procedures used in the audit of computerized accounting systems.

### **MACC 6580 - Internal Auditing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Internal audit profession, internal control, risk assessment, evidence gathering, audit management, internal/external auditor relations, environmental auditing and federal sentencing guidelines, and audit reporting.

### **MACC 6610 - Advanced Accounting Information Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An advanced study of accounting information systems including general ledger, principles, tools, and techniques for controls, database systems, management query, and data analysis tools and systems. Course integrates projects and case studies where applicable.

### **MACC 6695 - Graduate Accounting Internship**

**Credits: (1-3)**

**Typically taught:**

**Variable**

A significant professional-level field experience in the area of accounting or taxation. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through MAcc/MTax courses.

Prerequisite: Admission to the MAcc or MTax program; approval by department chair and program director. Can be repeated once up to 6 credit hours.

**MACC 6801 - Individual Study****Credits: (1, 2, 3)**

Individual work or work in small groups, by arrangement, on special topics not included in the announced course offerings. Prerequisite: Approval of Graduate Coordinator and Instructor.

**MACC 6802 - Individual Study****Credits: (1, 2, 3)**

Individual work or work in small groups, by arrangement, on special topics not included in the announced course offerings. Prerequisite: Approval of Graduate Coordinator and Instructor.

**MACC 6803 - Individual Study****Credits: (1, 2, 3)**

Individual work or work in small groups, by arrangement, on special topics not included in the announced course offerings. Prerequisite: Approval of Graduate Coordinator and Instructor.

**MACC 6991 - Lecture Seminar****Credits: (1, 2, 3)**

Lecture and discussion of current accounting topics by individuals from business and industry.

**MACC 6992 - Lecture Seminar****Credits: (1, 2, 3)**

Lecture and discussion of current accounting topics by individuals from business and industry.

**MACC 6993 - Lecture Seminar****Credits: (1, 2, 3)**

Lecture and discussion of current accounting topics by individuals from business and industry.

**MATH 0950 ND - Pre-algebra****Credits: (3)****Typically taught:****Fall [Full Sem, Online]****Spring [Full Sem, Online]****Summer [Full Sem, 1st Blk, 2nd Blk, Online]**

Whole number, integer, and fraction operations, solving linear equations, exponents, ratio and proportion, and applications. The course fee for this course includes homework software and math assistance from tutoring services. Prerequisite: none. Does not count toward graduation.

**MATH 0970 ND - Pathway to Contemporary Mathematics****Credits: (5)****Typically taught:****Fall [Full Sem]****Spring [Full Sem]**

### **Summer [Full Sem]**

This course integrates geometry, numeracy, proportional reasoning, algebraic reasoning, and topics in statistics and functions (linear, quadratic, rational, radical, exponential and logarithmic) using modeling, problem solving, and critical thinking. The course fee for this course includes homework software and math assistance from tutoring services. This course may not be transferred to other USHE schools. Prerequisite: MATH 0950 or Level 2 placement.

### **MATH 0990 ND - First Course in Algebra**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Online]**

Properties of real numbers, solving linear equations and inequalities, geometry, ratio and proportion, applications, graphing, solving linear systems, exponents, scientific notation, polynomials, factoring, and solving quadratic equations. The course fee for this course includes homework software and math assistance from tutoring services. Prerequisite: MATH 0950 or Level 2 placement. Does not count toward graduation.

### **MATH 1010 - Intermediate Algebra**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Online]**

Inequalities (including absolute value and systems), systems of equations, applications, functions (inverse, exponential, and logarithmic), variation, factoring, rational expressions, radicals, complex numbers, quadratic equations, parabolas, circles, quadratic formula, formulas, properties and applications of logarithms. The course fee for this course includes homework software and math assistance from tutoring services. Prerequisite: MATH 0990 or Level 3 placement.

### **MATH 1020 - Fundamentals of Geometry**

**Credits: (3)**

An introduction to the definitions, methods, and logic of geometry. Prerequisite: MATH 0990 or placement test.

### **MATH 1030 QL - Contemporary Mathematics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Topics from mathematics which convey to the student the beauty and utility of mathematics, and which illustrate its application to modern society. Topics include geometry, statistics, probability, and growth and form. Prerequisite: MATH 0970 or MATH 1010 or ACT Math score 23 or higher or placement test.

### **MATH 1040 QL - Introduction to Statistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

### **Summer [Full Sem, Online]**

Basic concepts of probability and statistics including data collection and analysis, correlation and regression, probability, discrete and continuous distributions (binomial, normal and t distributions), estimation and hypothesis testing, with an emphasis on applications and understanding of the main ideas. Prerequisite: MATH 1010, Math ACT score 23 or higher, Placement Test, MATH 1050, MATH 1080, or MATH 1210 and above.

### **MATH 1050 QL - College Algebra**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

This course covers a survey of college mathematics and is also a preparatory course for calculus. Topics from continuous mathematics include polynomial, rational, exponential and logarithmic functions, equations and their applications, absolute value, polynomial and rational inequalities, and nonlinear systems. Topics from discrete mathematics include matrices, matrix algebra and inverses, and determinants. Prerequisite: MATH 1010 or Math ACT score of 23 or higher or placement test.

### **MATH 1060 - Trigonometry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is true to its Greek title root "triangle-measure" and is a preparatory course for calculus. Topics include trigonometric functions and their graphs, trigonometric identities, inverse trigonometric functions, trigonometric equations, solving triangles, and applications of trigonometry. Complex numbers, polar coordinates and vectors are also introduced. Prerequisite: MATH 1010 or Math ACT score of 23 or higher or placement test.

### **MATH 1080 QL - Pre-calculus**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This is an accelerated course that covers the main topics of College Algebra and Trigonometry. It is a single course prerequisite to calculus and is primarily for those students that need a review. Topics include polynomial, rational, exponential and logarithmic functions, equations and their applications, absolute value, polynomial and rational inequalities, and nonlinear systems; matrices, matrix algebra and inverses, determinants, sequences and series; trigonometric functions and their graphs, trigonometric identities, inverse trigonometric functions, trigonometric equations, solving triangles, and applications of trigonometry. In addition, conics and polar coordinates are also covered. Prerequisite: MATH 1010 or Math ACT score of 23 or higher or placement test.

### **MATH 1110 - Calculus Concepts and Applications**

**Credits: (3)**

A conceptual understanding of the fundamental notions of calculus (limits, continuity, differentiation and integration). Application of these ideas to economics, the social and life sciences, and natural resource modeling is central to the course. Prerequisite: MATH 1050 QL or MATH 1080 QL or placement test.

## **MATH 1200 - Mathematics Computer Laboratory**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Computer solution of mathematics problems using a computer algebra system. Prerequisite: MATH 1050 and MATH 1060, or MATH 1080, or Co-Requisite: MATH 1210.

## **MATH 1210 - Calculus I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Limits, continuity, differentiation, integration. Prerequisite: MATH 1050 and MATH 1060 or MATH 1080 or placement test. Co-Requisite: The ability to use a computer algebra system.

## **MATH 1220 - Calculus II**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Transcendental functions, techniques of integration, analytic geometry, infinite series. Prerequisite: MATH 1210. Co-Requisite: The ability to use a computer algebra system.

## **MATH 1630 - Discrete Mathematics Applied to Computing**

**Credits: (4)**

An overview of the fundamentals of algorithmic, discrete mathematics applied to computation using a contemporary programming language. Topics include logic, proofs, sets, functions, counting, relations, graphs, trees, Boolean algebra, and models of computation. This course includes programming. Prerequisite: MATH 1050 or MATH 1080, and CS 1400 or ability to program in a contemporary computer language and the consent of the instructor.

## **MATH 2010 - Arithmetic for Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Prospective school teachers revisit mathematics topics from the K-8 school curriculum and examine them from an advanced perspective including arithmetic, number theory, and problem solving. Prerequisite: ACT score of 23 or better, Accuplacer CLM of 50 or better, MATH 1010 with a C or better, MATH 0970 with a C or better or completion of any math course MATH 1030 or above with a C or better.

### **MATH 2015 - Algebra and Functions for Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Prospective school teachers revisit mathematics topics from the K-8 school curriculum and examine them from an advanced perspective including variables, expressions, equations and inequalities, and functions. This course includes recitation and hands on activities. The goal is to present mathematical concepts and effective teaching strategies in an integrated manner. Underlying goals are to stimulate variety in solution processes, provide concrete, pictorial and abstract models, develop communication, collaboration and math reading skills in an environment rich with manipulatives and technology. Prerequisite: MATH 2010.

### **MATH 2020 QL - Mathematics for Elementary Teachers II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Prospective elementary school teachers revisit mathematics topics from the elementary school curriculum and examine them from an advanced perspective including probability, statistics, geometry and measurement. Prerequisite: MATH 1050 and MATH 2010.

### **MATH 2120 - Euclidean Geometry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Exploration of Euclidean geometry, from basic concepts to advanced theorems. Prerequisite: MATH 1210 or consent of instructor.

### **MATH 2210 - Calculus III**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Vector algebra, vector valued functions, multivariable functions, partial derivatives, multiple integrals, line integrals, integration in vector fields. Prerequisite: MATH 1220.

### **MATH 2250 - Linear Algebra and Differential Equations**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to Linear Algebra and Differential Equations. Systems of linear equations, matrices, vector spaces, eigenvalues. First and second order differential equations and models, higher order linear equations, linear systems. Prerequisite: MATH 1220.

### **MATH 2270 - Elementary Linear Algebra**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Systems of linear equations, matrices, vector spaces, eigenvalues linear transformations, orthogonality. Prerequisite: MATH 1220.

### **MATH 2280 - Ordinary Differential Equations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Methods of solution for ordinary differential equations. Exact equations, linear equations Laplace Transforms, series solutions. Prerequisite: MATH 1220.

### **MATH 2410 - Foundations of Probability and Statistics**

**Credits: (3)**

An introduction to probability and statistics with special emphasis on concepts in the K-12 school curriculum.

Prerequisite: MATH 1210 or MATH 1050 and consent of instructor.

### **MATH 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 3 times for a maximum of 4 credit hours.

### **MATH 2990 - Seminar in Mathematics**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Joint sessions of students and faculty dedicated to the discussion of topics in mathematics and mathematics education. Students will attend seminars, participate in discussions, and write reviews of the presentations. The course may be taken 5 times and up to 6 credits. Prerequisite: MATH 1210 and ENGL 2010, or consent of instructor.

### **MATH 3050 - History of Mathematics**

**Credits: (3)**

**Typically taught:**

**Check with Department**

A survey of the history of mathematics and its impact on world culture with emphasis on mathematical motivations, original methods and applications. Prerequisite: MATH 1220.

### **MATH 3110 - Foundations of Algebra**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

An introduction to Abstract Algebra, Number Theory and Logic with an emphasis on problem solving and proof writing. Prerequisite: MATH 1210.

### **MATH 3120 - Foundations of Euclidean and Non-Euclidean Geometry**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Axiomatic development of geometry; Euclidean and non-Euclidean. Prerequisite: MTHE 2120 or instructor consent.

### **MATH 3160 - Number Theory**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

An overview of beginning number theory including the integers, modulo arithmetic, congruencies, Fermat's theorem and Euler's theorem. Prerequisite: MATH 1210.

### **MATH 3270 - Linear Algebra**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Theory and applications of linear algebra including abstract vector spaces and canonical forms of matrices. Prerequisite: MATH 2270.

### **MATH 3280 - Dynamical Systems**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Linear and nonlinear systems of differential equations, qualitative behavior and stability of solutions, applications. Prerequisite: MATH 2270 and MATH 2280.

### **MATH 3410 - Probability and Statistics I**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Introductory probability theory and mathematical statistics, including applications. Prerequisite: MATH 1220.

### **MATH 3420 - Probability and Statistics II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A continuation of MATH 3410-Introductory probability theory and mathematical statistics, including applications. Prerequisite: MATH 2210 and MATH 3410.

### **MATH 3450 - Advanced Statistical Methods**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This applied statistics course discusses study design, data exploration and visualization, choosing among statistical techniques, and the interpretation of statistical results. Analyses, including T-tests, ANOVA, regression and their non-parametric versions, will be performed on real-world data sets using statistical software. Prerequisite: MATH 3410 or MATH 1040 and a three credit 3000 or 4000 level course with one of the following designations: MATH, BTNY, CHEM, PHYS, GEO, MICR, and ZOOL. Students may also enroll with permission of instructor.

### **MATH 3550 - Introduction to Mathematical Modeling**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Formulation, solution and interpretation of mathematical models for problems occurring in areas of physical, biological and social science. Prerequisite: MATH 1200, MATH 1220, and Co-requisite MATH 2270 or MATH 2280.

### **MATH 3610 - Graph Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Principles of Graph Theory including methods and models, special types of graphs, paths and circuits, coloring, networks, and other applications. Prerequisite: MATH 1220.

### **MATH 3620 - Enumeration**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Principles of Enumeration including counting principles, generating functions, recurrence relations, inclusion-exclusion, and applications. Prerequisite: MATH 1220.

### **MATH 3710 - Boundary Value Problems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Fourier series and the method of separation of variables. Heat, wave, and potential equations, Sturm-Liouville problems, orthogonal functions, special functions. Prerequisite: MATH 2210 and MATH 2280.

### **MATH 3810 - Complex Variables**

**Credits: (3)**

**Typically taught:**

**F or Sp (alternate years)**

Analysis and applications of a function of a single complex variable. Analytic function theory, path integration, Taylor and Laurent series and elementary conformal mapping are studied. Prerequisite: MATH 2210.

### **MATH 4010 - Capstone Mathematics for High School Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Prospective high school teachers revisit mathematics topics from the secondary school curriculum and examine them from an advanced perspective. The major emphasis is on topics from algebra and geometry. Prerequisite: MATH 3110 and MATH 3120.

### **MATH 4110 - Modern Algebra I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Logic, sets, and the study of algebraic systems including groups, rings, and fields. Prerequisite: MATH 2270 and MATH 3110.

### **MATH 4120 - Modern Algebra II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A continuation of MATH 4110: advanced topics from groups, rings, and fields including the Sylow theorems and Galois theory. Prerequisite: MATH 4110.

### **MATH 4210 - Introductory Real Analysis I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Develop the analysis underlying calculus. In-depth study of limits, continuity, integration, differentiation, sequences and series. Other topics may include Lebesgue measure and integration and Fourier Analysis. Prerequisite: MATH 2210, MATH 2270, and MATH 3110.

### **MATH 4220 - Introductory Real Analysis II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A continuation of MATH 4210-Develop the analysis underlying calculus. In-depth study of limits, continuity, integration, differentiation, sequences and series. Other topics may include Lebesgue measure and integration and Fourier Analysis. Prerequisite: MATH 4210

### **MATH 4320 - Topology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to point-set topology, including metric and topological spaces, continuity, homeomorphisms, compact and connected spaces, and complete metric spaces. Other topics may include the Baire Category Theorem and Tietze Extension Theorem. Prerequisite: MATH 2210, MATH 2270 and MATH 3110.

### **MATH 4400 - Statistical Analysis of Big and Small Data**

**Credits: (3)**

This course combines and develops the knowledge and skills used in big and small data using both theory and application. The course deals with methods to analyze data with varying volume, velocity, and variety and their associated challenges. Topics such as data mining, predictive analytics, heteroskedasticity of data, and data visualization will be explored. Prerequisite: MATH 3410 and CS 2550.

### **MATH 4610 - Numerical Analysis I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to numerical methods. Use of the digital computer in solving otherwise intractable problems. Prerequisite: MATH 2270 and an ability to use a programming language

### **MATH 4620 - Numerical Analysis II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A continuation of MATH 4610-Introduction to numerical methods. Use of the digital computer in solving otherwise intractable problems. Prerequisite: MATH 4610

### **MATH 4710 - Partial Differential Equations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Partial differential equations. First and second order equations, characteristics and classifications, methods of solution, applications. Prerequisite: MATH 3710.

### **MATH 4750 - Topics in Mathematics**

**Credits: (2-4)**

This course will vary with the demand and may be taken more than once for a maximum of 8 credit hours. Prerequisite: Consent of the instructor.

### **MATH 4910 - Senior Research Project**

**Credits: (3)**

Mathematical research project for seniors. Students may not register for this course the last semester before they intend to graduate. Prerequisite: Instructor approval.

### **MATH 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **MBA 6010 - Legal and Regulatory Environment of Business**

**Credits: (3)**

This course is an introduction to business law, emphasizing basic legal principles and the broad application of domestic and international public and private law. Its overriding objective is to provide a working understanding of the legal environment of business for MBA students. Its focus is on regulatory law, business organizations, and other legal topics of special importance to managers of businesses.

### **MBA 6020 - Financial and Managerial Accounting**

**Credits: (3)**

A general study of the use of accounting information by internal and external decision makers with emphasis on the use of accounting information by managers of an entity. Topics covered include the accounting cycle, the basic financial statements, inventories, long-term liabilities, cost concepts and behaviors, cost-volume-profit analysis, and financial statement analysis.

### **MBA 6040 - Managerial Economics**

**Credits: (3)**

This course develops the basic concepts and analytical tools of economics which include opportunity cost, marginal analysis, constraints, and optimizing behavior. Applications include theories of the firm, its organizational architecture, transactions costs, markets, pricing, and other managerial issues.

### **MBA 6050 - Quantitative Methods I**

**Credits: (3)**

This class will give students the opportunity to learn how to write, read, and analyze statistical data as it pertains to business and society. The basic premise of this course is to provide the student with an understanding of statistics as it is used in business and economics. This course will give special emphasis to understanding, interpreting and communicating statistics. Topics covered include descriptive statistics, probability, probability distributions, sampling distributions and hypothesis testing. Prerequisite: Additional course work in College Algebra may be required prior to course registration as per department advisement and student's program of study requirements.

### **MBA 6051 - Quantitative Methods II**

**Credits: (3)**

This course will build on the first foundation course on descriptive statistics by emphasizing inferential statistics. This

course will be application oriented and will focus on hypothesis testing and regression analysis. Students will learn how to design a survey and evaluate the data in order to test theories learned in other MBA classes. Students will also learn basic concepts and methods of optimization using elementary concepts in differential calculus. Additional foundation course work in statistics may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6050, or equivalent course in statistics.

### **MBA 6110 - Tools for the Ethical Manager**

#### **Credits: (3)**

This course is designed to be taken at the beginning of formal course work in the MBA program. Students will explore various aspects of moral reasoning and apply these concepts to common ethical issues faced in business. Students will work individually and in groups to explore issues of personal values, self-awareness, teamwork, communication, managing differences, and career management. Students in this course will be introduced to analytical, communication, and technological tools used throughout the program.

### **MBA 6120 - Organizational Behavior**

#### **Credits: (3)**

This is a course for graduate students who have already been exposed to the principles of management and organizational behavior and who are now seeking a more advanced preparation for the behavioral role of the manager. It offers a critical review of the factors that influence behavior within the organizational setting. Behavioral concepts are emphasized which particularly relate to group dynamics, interpersonal relations, and ultimately, organizational effectiveness. In short, this course deals with the human aspects of management--the kinds of problems most frequently experienced in day-to-day interaction with others. The format will include discussions, group and individual exercises, case studies, and student reports.

### **MBA 6130 - Financial Management**

#### **Credits: (3)**

Financial Management is a detailed presentation of the practices, techniques, and applications of theory in corporate finance. The focus is an understanding of how companies operate and acquire the tools necessary to analyze and evaluate corporate financial policies. Cases and applied research in the form of outside readings will assist students to focus on key issues. The purpose of the course is to assist current and prospective managers in making better investment and financing decisions. The course addresses (1) the investment decision (capital budgeting) as well as (2) the financing decision. Class discussion and cases will focus on capital budgeting and specifically on the establishment of goals, development of strategy, identification of investment opportunities, evaluation of projects, implementation of projects, and the monitoring processes. Shareholder wealth maximization is the standard for determining why one decision is "better" than another. The ethical considerations of wealth maximization will also be addressed. Additional foundation course work in accounting and statistics may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6020, MBA 6050 & MBA 6051, or equivalent courses in accounting and statistics.

### **MBA 6140 - Marketing Management**

#### **Credits: (3)**

This course centers on creating customer value profitability in competitive markets. In an integrative fashion, it covers analyzing customer needs and preferences; estimating market potential; assessing market opportunities and threats in view of the focal company's and its competitors' resources and capabilities; developing market and marketing strategies; making astute product, pricing, distribution, and promotion decisions; and measuring marketing performance. Pedagogical vehicles include lectures, reading assignments, and case-based discussions and reports.

### **MBA 6150 - Operations/Supply Chain Management**

#### **Credits: (3)**

"Manufacturing of the future will be required to meet customer-driven demand instantaneously." The future is now! The requirements for faster response, more customer input, and greater product variety have not diminished, but instead

have escalated. This course builds upon basic production and operations management knowledge to meet the needs of customers generated in today's global market. It is designed to enhance the student's understanding of how to analyze problems related to design, planning, control, and improvement of manufacturing and service operations. Topics include, but are not limited to, supply chain management, materials management, production planning and control, scheduling, capacity and facilities planning, manufacturing strategy, and global operations. Additional foundation course work in statistics may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6050 & MBA 6051, or equivalent courses in statistics.

### **MBA 6160 - Applications of Decision Models**

#### **Credits: (3)**

This course presents a rigorous treatment of quantitative decision-making with emphasis on data collection, analysis, and model building. This course emphasizes experience in structuring realistic business problems, collecting data, developing an appropriate model for analysis, and interpreting and defending results. A number of cases are employed. Additional foundation course work in statistics may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6050 & MBA 6051, or equivalent courses in statistics.

### **MBA 6170 - Corporate Communications**

#### **Credits: (3)**

The focus of this course is to develop an integrated corporate communications program in organizations which will provide effective communication both to internal and external stakeholders. Among the topics to be discussed are corporate image and identity, corporate advertising and advocacy, media relations, marketing, communication, financial communication, community relations, corporate philanthropy, government affairs and crisis communication. Attention will also be given to effective communication internally through various methods, such as meetings, programs and publications.

### **MBA 6180 - Strategic Management**

#### **Credits: (3)**

This course takes a broad view of the entire organization. In some instances, the organization will have one line of business. In other cases, the organization may be a large diversified corporation with many lines of business. We will examine the strategic issues facing diversified corporations including: vertical integration, diversification into related and unrelated businesses, and operating synergies. Prerequisite: MBA 6130, MBA 6140, MBA 6150.

### **MBA 6210 - Management Accounting and Control**

#### **Credits: (3)**

This course is designed to introduce the student to the concepts and procedures of managerial accounting through readings and case studies. The course emphasizes the use of accounting data in the decision-making process by internal decision-makers (e.g., management), rather than external decision-makers (e.g., stockholders, investors, creditors, and regulatory bodies). The course topics include cost terms and concepts, job-order costing, activity-based costing, quality management, cost behavior, cost-volume-profit analysis, profit planning, relevant costs, capital budgeting, cost allocation, and pricing. Additional foundation course work in accounting may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6020, or equivalent courses in accounting.

### **MBA 6310 - Information Technology in the Enterprise**

#### **Credits: (3)**

Information technology from an enterprise perspective with an orientation toward the management of technology for competitive/ strategic advantage. Managers will be increasingly responsible for making decisions with respect to implementing new technology. This course will provide the background knowledge to enable managers in traditional business units to function as full participants in decisions involving the purchase and application of technology to create a business advantage.

### **MBA 6360 - Aerospace Program Management**

**Credits: (3)**

Within the context of the aerospace industry, students will be taught how to manage change across multiple projects using program management techniques. In organizations in which multiple strategic initiatives as well as continuous improvement projects are ongoing, understanding how to successfully plan and execute is vital.

### **MBA 6370 - CPI & Strategy in Aerospace Management**

**Credits: (3)**

This management course is designed to teach aerospace business managers how to use the tools in Continuous Process Improvement (CPI) to attain and maintain operational excellence. The course includes relevant CPI tools such as Lean, Six Sigma, Theory of Constraints and Benchmarking. The course will also show managers how to conduct a strategic planning session with senior leadership and strategically align their organizations to maximize the use of CPI tools. Prerequisite: Admission to the MBA Program or approval to seek the stand-alone Graduate Certificate in Aerospace Management. This course is an elective for all MBA students, but is a required course for students seeking the Graduate Certificate in Aerospace Management.

### **MBA 6410 - Global Macroeconomic Conditions**

**Credits: (3)**

This course will focus on the impact of global macroeconomic conditions on firm decision-making. To review and analyze current macroeconomic topics, a theoretical framework is developed, from the start showing the linkages among national economies. This framework is used to analyze and forecast business cycles, interest rates, exchange rates, causes of trade deficits, short- and long-term consequences of fiscal and monetary policy decisions, and the globalization of financial markets. Examples from different countries are used to enhance knowledge of the world economy. Additional foundation course work in economics may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6040, or equivalent course in economics.

### **MBA 6420 - The Economics of Industry**

**Credits: (3)**

This course will focus on the behavior of the individual firm in different market settings, competitive and imperfectly competitive. We are concerned with the strategic behavior of firms under different industry structures as they struggle with the pressures of competition. Students will study how differing levels of the firm's market power impacts pricing and output policies, product differentiation, and barriers to entry. In addition, the student will learn the basics of game theory and use it to analyze the strategic behavior of firms. Topics will include different types of pricing strategies including price discrimination, pricing of product lines, predatory pricing, peak load pricing, and entry deterrence. Issues of non-price competition such as research and development, information, externalities, moral hazard, and firm structure will also be discussed. The course includes both supplemental readings designed to illustrate real-world applications of the theoretical principles developed as well as in-class experiments in strategic behavior designed to illustrate certain theoretical conclusions. Additional foundation course work in economics may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6040, or equivalent course in economics.

### **MBA 6430 - International Marketing**

**Credits: (3)**

The course provides foundational knowledge and practical application of international marketing principles and practices so as to prepare participants for entry-level marketing positions in the global context.

### **MBA 6440 - Strategic Leadership**

**Credits: (3)**

This course will expose students to the strategic nature of leadership. Students will evaluate and discuss key principles

and frameworks of leadership through the case method. Students will study leadership styles, situational leadership, personal leadership, and power & influence, as they relate to strategy.

### **MBA 6450 - Leadership Through People Skills**

#### **Credits: (3)**

This course will provide a highly applied introduction to the interpersonal dynamics of leading and motivating others. Emphasis will be placed on the development and acquisition of key behaviors, skills, techniques and mental models for influencing others through sound people skills. By means of hands-on application, role-playing and "learning-by-doing" activities, students will learn to listen for understanding and insight; gain commitment rather than compliance; manage conflict; adapt their style to different people; apply influence skills in all directions; and develop insights into their impact on others.

### **MBA 6510 - Investment Analysis and Portfolio Management**

#### **Credits: (3)**

This course engages class participants in a detailed study of the practices, techniques, policies and applications of theory in investments. Emphasis will be on an understanding of security markets, analysis, asset allocation, portfolio management and evaluation. Students will examine and apply investment tools and evaluate financial policies. Cases and applied research in the form of outside readings will assist students to focus on key issues and current topics. Course work in finance may be required prior to course registration as per department advisement and student's program of study requirements. Prerequisite: MBA 6130.

### **MBA 6520 - International Business Field Studies**

#### **Credits: (3)**

This course integrates international travel and site visits with the study of international business topics. Through readings, assignments, discussions, and visits to important business and cultural sites in the destination countries, the course builds understanding and competence in international business practices and managing across cultures. This course entails travel expenses beyond regular tuition and may be repeated when offered to a different world region. May be repeated 3 times with a maximum of 9 credit hours.

### **MBA 6530 - E-Business**

#### **Credits: (3)**

The Internet has become an important influence in the world. Business on the internet, in terms of operations, marketing, security, etc., has increased concomitantly in influence. This course will provide a foundation for understanding the possibilities and potential pitfalls for doing e-business.

### **MBA 6540 - Negotiations**

#### **Credits: (3)**

The purpose of this course is to provide opportunities for class participants to develop their negotiating abilities for use in organizational and other settings. The course is premised on the assumption that negotiating concepts are best learned through practice which is grounded in rigorous analysis and reflection. While theoretical principles and concepts from various reference disciplines (such as social psychology, sociology, and economics) will be presented through lectures and readings, this course will focus primarily on improving practical skills. Class participants will not only learn to enhance their individual abilities in dyadic and group situations, but also to analyze contexts for the most effective application of these skills.

### **MBA 6550 - Managing and Improving Quality**

#### **Credits: (3)**

This course examines how organizations can gain competitive advantage by improving the quality and productivity of their business processes, manufactured goods and service outputs. Customer-focused approaches for designing, controlling and improving processes are emphasized, together with other concepts and approaches of quality

management. Specific topics include process analysis, problem-solving methods, variability and statistical process control, performance measurement, and quality management systems. Guest lectures from industry professionals, experiential learning exercises and cases from manufacturing and service industries will assist students in understanding key issues and current topics. Prerequisite: MBA 6050 & MBA 6051, or equivalent courses in statistics.

### **MBA 6560 - Business/Market Planning Using Online Resources**

#### **Credits: (3)**

In this hands-on project-oriented course, students learn to (1) develop and write effective business/marketing plans and (2) use online resources to gather pertinent market, competitor, and environmental information. Students may develop a business/marketing plan for an existing business or for a potential start-up of interest to them. Alternatively, they may write a business/marketing plan and conduct requisite research and data analyses for a business suggested by the course instructor. Learning is facilitated primarily via practical discovery exercises, an extensive term project, and coaching. Although lectures and reading assignments serve to convey essential background knowledge, especially during the first half of the course, much class time is devoted to working on plans in teams under the instructor's guidance.

### **MBA 6580 - Project Management**

#### **Credits: (3)**

This course is a study of topics involved with managing projects. It examines the roles and skills of the project manager and the project office. Students will study the phases of the project life cycle, specifically the activities, requirements, methodologies, and tools common in project management.

### **MBA 6590 - Strategic Business Tax Planning**

#### **Credits: (3)**

This course examines tax strategy and planning topics related to making important business decisions. The course addresses business formations, operations, terminations, reorganizations, acquisitions, and divisions. The course also covers tax issues related to multi-state and multi-national business transactions. Unique issues related to executive compensation, partnerships, limited liability companies, S corporations and C corporations are also addressed. Prerequisite: MBA 6010 or equivalent course in business law; MBA 6020 or equivalent courses in accounting.

### **MBA 6630 - Networking & Information Systems**

#### **Credits: (3)**

This course covers the role of networking technology in information systems. Through hands-on and conceptual knowledge, students will learn how data communications and networks are used to facilitate decentralized and distributed systems in support of decision making. Various aspects of networking including standards, media, network design and applications will be covered. Students will gain hands-on familiarity with a local area network and the Internet. Prerequisite: Admittance to MACC, MBA or MHA program.

### **MBA 6640 - Information Assurance in the Enterprise**

#### **Credits: (3)**

This course covers the basic principles and concepts in information assurance. It examines the managerial, operational, and organizational issues of securing information systems. Topics include legal and ethical issues in computer security; privacy concerns; malware; security awareness at the executive, technical and user levels; physical security, personnel security issues; policies and procedures; the need for enterprise security awareness; and the need for an enterprise security organization. Case studies and exercises in the computer lab will be used to provide examples of the need for organizations to develop security procedures and policies. Prerequisite: Admittance to MACC, MBA or MHA program.

### **MBA 6680 - Graduate Consulting Project**

#### **Credits: (3)**

Graduate students are given the opportunity to consult with an existing organization, make recommendations for

improvements, and assist in implementing changes in the organization. Students meet periodically with supervising faculty to review results. Prerequisite: Instructor approval.

### **MBA 6700 - Managing for Sustainability**

#### **Credits: (3)**

This course explores how business organizations can address environmental issues to meet societal needs and create competitive advantages. Emphasis is placed on understanding the impacts of businesses on the natural environment; identifying the opportunities for businesses to align their strategies and practices toward more sustainable business models; and using various methods and tools for measuring and improving the environmental performance of individual business organizations and the business system as a whole. Major topics include frameworks for understanding business and environmental sustainability; innovation, design and assessment of green products/services; green marketing issues; green purchasing; environmental management systems; operations and supply chain management issues for environmental sustainability. Prerequisite: Admission to MBA program; or graduate standing with permission of the MBA program.

### **MBA 6710 - Accounting and Finance for Environmental Sustainability**

#### **Credits: (3)**

This course will expose MBA students to contemporary accounting and finance thought on environmental sustainability. The course will be divided into accounting and finance modules. The focus of the accounting module will include measurement and reporting of the environmental sustainability of business practices. The focus of the finance module will include capital budgeting for sustainability, financial assessment of sustainable business practices, and investing in environmental sustainability.

### **MBA 6715 - Sustainability Tools and Methods**

#### **Credits: (3)**

This hybrid 8-week course consists of weekly modules, each of which addresses key aspects of sustainability-related business practices. Weekly topics are designed to explore in more depth specific sustainability-related tools and methods as they relate and add value to various aspects of business operations, including finance, accounting, supply chain management, information technology, stakeholder relations, and strategic planning. Secondly, students will gain an overview of the tools, techniques and bodies of knowledge through which they may pursue sustainability-related projects or entrepreneurship within their organizations. The course will utilize sustainability practitioners and subject-matter experts from a variety of organizational backgrounds. Prerequisite: MBA 6700; Admission to the MBA Program or Graduate Certificate in Sustainability in Business.

### **MBA 6720 - Business, Economics, and the Environment**

#### **Credits: (3)**

Environmental economics considers the efficient and equitable use of society's scarce environmental resources. Environmental resources include air, water, land, wildlife, biodiversity, and ecological systems. The allocation of environmental resources will be considered from different perspectives: (1) market allocations; (2) efficient allocations; (3) equitable allocations; and (4) government attempts to allocate these resources efficiently. Topics of the course include property rights, market failures, benefit-cost analysis, welfare economics, non-market valuation, environmental regulation, and sustainable development and business practices. Emphasis will be placed on the impacts on the firm resulting from environmental problems and regulations; and on sustainable business practices. Prerequisite: MBA 6040, MBA 6051 or equivalent.

### **MBA 6730 - Consulting Project in Sustainability**

#### **Credits: (3)**

Graduate students are given the opportunity to consult with an existing organization, evaluate sustainable business practices, make recommendations for improvements, and assist in implementing changes in the organization. Students meet periodically with supervising faculty to review results. Prerequisite: Instructor approval and MBA 6700, MBA 6710, and MBA 6720.

## **MBA 6740 - Principles of Contract Management**

### **Credits: (3)**

Students will gain an overview of the fundamentals of contract management from the development of acquisition requirements, solicitation/proposal, negotiation, contract formation, contract performance, and contract closeout. Learn the basics of what it takes to solicit, procure, negotiate and administer contracts and subcontracts while gaining a broad understanding of business principles to establish long-term relationships with customers, suppliers and other stakeholders. Explore an insider's view of the roles and responsibilities of contract administrators and the various interfaces with program management and other internal disciplines. Learn how to identify the basic differences between contract types and how they are selected to mitigate risk in a contractual environment, as well as exploring the key distinctions between commercial, government and international contracting processes.

## **MBA 6750 - Financial Aspects of Contract Management**

### **Credits: (3)**

Within the context of contract management, students will learn how to structure cash flow through financial methods that include invoice timing, pricing, overhead considerations, advance payments, letters of credit and other financial sources. Gain a comprehensive knowledge of accounting systems, budgeting, reporting, auditing and settlements. Enhance the profitability of your business through prudent contracting financial practices.

## **MBA 6760 - Legal Aspects of Contract Management**

### **Credits: (3)**

Within the context of contract management, students will gain a working knowledge of stakeholder requirements, applicable common law, Federal Acquisition Regulations (FAR), Uniform Commercial Code (UCC) and other local, state and federal regulations and law that must be adhered to throughout the contract management process. Students will learn the legal aspects of contract management with an emphasis on real world, day-to-day application. Students will explore all phases of managing an approved contract successfully through completion of performance including change management, communications, negotiations, contract types, terms and conditions, risks, defaults, terminations, claims and much more. Students will participate in projects and discussions to rapidly enhance knowledge and proficiency in contract management in order to apply classroom concepts in the workplace.

## **MBA 6800 - Directed Study**

### **Credits: (1-3)**

Directed individual study and research on special topics related to business. May be repeated for a cumulative total of three credits. Prerequisite: Written approval of MBA program and instructor.

## **MBA 6850 - Entrepreneurship**

### **Credits: (3)**

Students will learn how to effectively come up with an idea, iterate around that idea, and validate customers around their final direction so that they can learn how to successfully launch an idea into a business with low risk, low capital, and higher degrees for success. In addition, if a student is interested in learning how to be a better "intrapreneur" this course will help them use some of these same skills in a corporate or employee environment. Being innovative and creative is always valuable.

## **MCJ 6000 - Criminal Justice Statistics**

### **Credits: (3)**

Criminal Justice Statistics is a focus on the role of data collection and analysis in formal, empirical research projects. The course begins with a review of statistical applications including measures of central tendency, dispersion, and hypothesis testing. The course concludes with an examination of more complex analytical tools such as MANOVA, Factor Analysis, Path Analysis, and Logistical Regression. Students will review various styles of multivariate analysis in peer-reviewed scholarly literature as well as use computing resources to conduct their own multivariate analysis of a criminal justice dataset.

## **MCJ 6100 - Contemporary Criminal Justice**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

Course provides an analysis of the policies and practices of agencies of the criminal justice system including the police, prosecution, courts and corrections. Additionally, the latest technology and developments in the field of criminal justice will be addressed.

## **MCJ 6110 - Research Methods in Criminal Justice**

### **Credits: (3)**

#### **Typically taught:**

**Summer [Full Sem]**

Course teaches quantitative and qualitative research design, data collection and analysis techniques, and research presentation and dissemination methods. Descriptive and inferential statistics will be covered as well as basic computer applications in criminal justice.

## **MCJ 6120 - Theories of Crime and Delinquency**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

Course focuses on a review of classical and current theories of criminology and delinquency and the underlying assumptions of each. Advancements in profiling and classification as well as other applications of theoretical models will be studied.

## **MCJ 6130 - Law and Social Control**

### **Credits: (3)**

Course focuses on the nature of law and legal institutions and the relationships between law and social control. Concepts of law and justice from the perspectives of its effects on the American criminal justice system will be investigated as well as the public policy concerns of laws and their relationship to our society.

## **MCJ 6140 - Technology and Innovation in Criminal Justice**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

Course explores the latest developments in technology and innovations in criminal justice. Included will be current developments in forensic science, i.e. DNA and the use of computer applications in criminal justice. Specific topics will be

adjusted as new technologies arrive. Emphasis will be on impact and management rather than the strict science of the protocols.

### **MCJ 6150 - Diversity Issues in Criminal Justice**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Course will sensitize and educate criminal justice professionals to issues of diversity. It explores the cross-cultural contact that criminal justice professionals have with citizens, victims, suspects, and co-workers, and the influence of culture, race and gender in the criminal justice field.

### **MCJ 6160 - Criminal Justice Policy Analysis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Course focuses on crime as a political issue and examines how conflicting political philosophies influence criminal justice policy. Emphasis will be placed on how decisions in politics affect criminal justice organizations and how these decisions can be influenced by executive managers.

### **MCJ 6170 - Juvenile Justice & Delinquency**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Course examines the origins and development of the juvenile justice system with particular emphasis on the current policies and practices of the agencies which process young offenders through the juvenile system. Course examines a variety of political initiatives designed to reduce the jurisdiction of the juvenile court, enhance the due process rights of juveniles, and create a more punitive approach in the juvenile justice system.

### **MCJ 6180 - Contemporary Legal Issues**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course exposes students to current law impacting criminal justice professionals. Topics will change depending upon current legal developments, but will include the general areas of corrections, law enforcement, employment, civil liability and criminal procedure.

### **MCJ 6190 - Legal Foundations of Criminal Justice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Broad survey of foundational legal topics relevant to criminal justice, including: criminal law, search and seizure, bail, right to counsel, self-incrimination, lineups, responsibilities of courtroom legal actors, speedy trial, impartial jury, plea bargaining, double jeopardy, sentencing law, inmate rights, juvenile law, death penalty law, and basic rules of evidence.

### **MCJ 6200 - Advanced Victimology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This is a graduate-level seminar designed to provide an overview of key research areas in victimology. Particular emphasis will be placed on theory, measurement, and empirical results related to different types, consequences, and prevention of victimization.

### **MCJ 6210 - Judicial Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Course exposes students to the dynamics of the American criminal courthouse. Students will examine how defense attorneys, defendants, prosecutors, judges, juries and others interact and contribute to America's version of criminal case disposition. Course also examines the mechanics of criminal case processing, as well as how the court system is supposed to work, how it really does work, and the implications for American democracy.

### **MCJ 6220 - Contemporary Law Enforcement**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

From the response and investigation of crimes committed, to the theory and practice involved in crime prevention, this course studies the development, theory, history and contemporary organizational structure of America's law enforcement organizations.

### **MCJ 6230 - Contemporary Corrections**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Course provides an analysis of critical problems confronting contemporary adult corrections agencies. Course examines the problems of institutions, the affect of judicial intervention in corrections, alternatives to incarceration, and the political milieu in which this occurs.

### **MCJ 6250 - Topics in Criminal Justice**

**Credits: (1-3)**

**Variable Title**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

Course focuses on a special issue or topic in criminal justice. A new topic/issue will be selected each time the course is offered. May be repeated with a maximum of 10 credit hours.

### **MCJ 6255 - Great Thoughts in Criminal Justice**

**Credits: (3)**

This course explores the broader context of criminal justice studies and concepts through the writings of significant authors and thinkers. Readings will focus on subjects such as justice, punishment, law and social control. Students will be expected to read extensively and participate in analysis and discussion.

### **MCJ 6260 - Graduate Readings**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Course allows the student to examine the scholarly literature on a subject of special interest under the supervision of faculty. Reading list and accompanying assignments must be approved by the supervising faculty member. Periodic progress meetings will be scheduled throughout the semester. May be repeated once with a maximum of 6 credit hours.

### **MCJ 6810 - Experimental Course**

**Credits: (1-3)**

May be repeated 5 times with a maximum of 6 credit hours.

### **MCJ 6920 - Workshops and Conference**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

May be repeated 5 times with a maximum of 6 credit hours.

## **ME 3040 - Dynamic System Modeling**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Fundamentals of analysis, design and control of physical engineering systems. Analytical and numerical modeling of mechanical, electrical, fluid and thermal systems with applications. Prerequisite: MATH 2250 and ENGR 2080.

## **ME 3050 - Machine Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Design and analysis of machine elements and machines. Material selection, connections and joints, shafts and bearings, fits and tolerances, fasteners, material failure and reliability. Prerequisite: ENGR 2080 and ENGR 2140.

## **ME 3060 - Sensors, Instrumentation and Control Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Fundamental principles of sensors for the measurement of physical quantities. Instrumentation for processing the inputs and outputs of sensor signals. Control of mechanical, electrical and thermal systems. Lecture plus laboratory. Prerequisite: ME 3040 and ME 3050.

## **ME 3300 - Fluid Mechanics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Fundamental principles of fluid statics and dynamics. Fluid properties, flow regimes, pressure, velocity, flow rate, internal and external flow, and dimensional analysis. Applications of fluid mechanics. Lecture plus laboratory. Prerequisite: MATH 1220, ENGR 2080 and ENGR 2300.

## **ME 3350 - Engineering Computing**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to engineering computing with applications to the analysis and design of engineering systems using an industry-standard software platform. Prerequisite: MATH 2250.

## **ME 3500 - Numerical Methods for Engineering**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Fundamental methods for the numerical solution of engineering problems. Topics include root finding, interpolation, curve fitting, differentiation, integration, differential equations and curve fitting. Prerequisite: MATH 3710, ME 3040 and ME 3350.

## **ME 4000 - Heat Transfer**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Fundamental principles of conduction, convection and radiation. Heat transfer with phase change, heat exchangers, and applications of heat transfer. Lecture plus laboratory. Prerequisite: MATH 3710 and ME 3300.

## **ME 4100 - Senior Project I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A mechanical engineering project will be selected for team participation. Team assignments will lead to the completion of a preliminary design phase which includes concept generation, engineering analysis and design, prototype testing, and preliminary economic analyses. Senior Project I culminates in a preliminary design review based on formal student presentations of documented engineering drawings of the proposed design. Prerequisite: Departmental permission.

## **ME 4150 - Vibrations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Fundamental principles of free and forced vibrations of discrete linear systems with and without damping. Multiple-degree-of-freedom systems, continuous systems, shock isolation and vibration control. Prerequisite: MATH 2250 and ENGR 2080.

## **ME 4200 - Senior Project II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of ME 4100. Team assignments will lead to the construction, testing and optimization of the design. This includes detailed engineering analysis and testing of prototypes, final parameter and tolerance design, and economic analysis of the project. Senior Project II culminates in a final design review based on formal student presentations of the documented final product and verification that the final product meets all requirements. Prerequisite: ME 4100.

## **ME 4250 - Finite Element Analysis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to the finite element method. Survey of FEA theory, including element formulation, stiffness matrix operations, shape functions, etc. Application and use of commercial FEA software for engineering design and analysis. Prerequisite: MATH 2250 and ME 3050.

## **ME 4300 - Material Failure Analysis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A survey of material failure modes, including fatigue, fracture, wear and corrosion. Introduction to damage tolerant design methodologies. Case studies in material failure. Prerequisite: ENGR 2160 and ME 3050.

### **ME 4350 - Advanced Mechanics of Materials**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Advanced topics in mechanics of materials such as three-dimensional combined stress fields, stress concentrations, dynamic loads, torsion of non-circular members, plates and shells, stability and buckling of columns, and energy methods. Prerequisite: ENGR 2140.

### **ME 4400 - Aerodynamics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Airfoil theory, lifting bodies, boundary layers, lift and drag, compressible aerodynamics. Prerequisite: ME 3300.

### **ME 4450 - Aerospace Propulsion**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Design and analysis of gas turbine engines and rocket motors. Liquid and solid fuel propulsion systems. Thermodynamics of flow associated with aerospace propulsion systems. Introduction to fuel combustion processes. Prerequisite: ME 4000.

### **ME 4500 - Heating, Ventilating and Air-Conditioning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Principles of heating, ventilating and air-conditioning (HVAC) of buildings. Refrigeration systems and indoor thermal environmental control system analysis and design. Prerequisite: ME 4000.

### **ME 4550 - Robotics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The mechanics and dynamics of robots. Kinematics, kinetics and trajectories of motion. Instrumentation, sensors and control system theory of robotic systems. Programming of robotic systems. Human/robot interfaces and safety. Prerequisite: ME 3040.

### **ME 4800 - Individual Research Problems**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

With permission and under the direction of faculty, the student researches a specific problem in the mechanical engineering field. Prerequisite: Permission of department.

#### **ME 4830 - Readings in Mechanical Engineering**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

With permission and under the direction of faculty, the student studies a topic taken from the mechanical engineering literature. Prerequisite: Permission of department.

#### **ME 4890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

Provides academic credit for engineering work experience. Permission of department required. Prerequisite: Permission of department.

#### **ME 4900 - Special Topics**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

A special topic in mechanical engineering is selected by the faculty to be taught on a one-time basis. With departmental approval, may substitute for a technical elective. Prerequisite: Permission of department.

#### **ME 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Academic credit for attendance at short courses, workshops, seminars, special training, etc. Prerequisite: Permission of department.

#### **ME 4990 - Seminar in Mechanical Engineering**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Seminar is designed to prepare the student for professional engineering employment. Topics include resumes, interviewing techniques, engineering ethics, professionalism, patent law, social issues, lifelong learning, diversity, communication, timeliness, and continuous improvement. Lectures and presentations by faculty, staff, and guests from local engineering industry. Prerequisite: ME 4100.

## **MED 6000 - Fundamentals of Graduate Study**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Review of program goals, policies, and procedures in the MED program. Introduction to the library, campus writing lab, and word processing facilities. A process for scholarly and professional writing will be covered as well as style, form, documentation, support, organization, and a number of other topics to help develop writing confidence for graduate work.

## **MED 6010 - Advanced Historical Foundations**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Study of the relationship of contemporary schooling issues to historical practices and philosophies.

## **MED 6020 - Diversity in Education**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

Topics in this course will include issues related to differences among groups of people and individuals based on ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geographical area as they impact teaching and learning.

## **MED 6030 - Advanced Educational Psychology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

The fields of philosophy and psychology have greatly contributed to our understanding of how individuals learn and possible reasons for success and failure in schooling. MED 6030 is a foundations course designed to familiarize participants with some of the more important theories of learning and development that come from these two disciplines. It is a required core class that contains knowledge that will have application throughout the Master's of Education program. Emphasis will be placed on classical philosophical perspectives and their implications for modern schooling; behavioral and cognitive learning theories; and developmental and social learning theories. Prerequisite: (Recommended) MED 6080.

## **MED 6050 - Curriculum Design, Evaluation & Assessment**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

An overview of the theories of curriculum development as well as a practical appraisal of curriculum design, implementation, evaluation and assessment. Prerequisite: (Recommended) MED 6080.

## **MED 6060 - Instructional Strategies**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This methods course will include organizing and universal teaching strategies that can accommodate the variety of learning contexts and content that is taught to a diverse audience of learners. Prerequisite: (Recommended) MED 6080.

## **MED 6080 - Conducting Educational Research**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students learn to locate and interpret educational research, and to apply research methods to their own education issues. Prerequisite: MED 6000. (Only taught fall and spring)

## **MED 6085 - Developing a Project Proposal**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is designed to help students develop a Master's project proposal that is carefully researched and professionally written. Prerequisite: Graduate Committee approved and MED 6030, MED 6050, MED 6060, and MED 6080 successfully completed.

## **MED 6090 - Master's Project**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Development of a master's project is often related to a student's work assignment. Student must have a signed proposal and department permission to register. Prerequisite: MED 6085.

## **MED 6091 - Graduate Synthesis**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A review and synthesis of the program and its course work. The course includes opportunity to work with the development of personal portfolios. Prerequisite: All core requirements completed; Master's Project Proposal committee-approved, and Master's Project Report completed or in progress. Student must have a signed proposal and program approval to register. Prerequisite: MED 6085.

## **MED 6110 - Introduction to Classroom Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [2nd Blk]**

This course serves as an introduction to classroom management for those who have not had classroom experience or have been hired by a school district on a "letter of authorization," (hired without a license). The focus will be on current issues, methodology, and application of a variety of approaches for behavior change, discipline, and management of diverse learners in the context of classroom environments. Classroom management as a function of good teaching will be examined. This course or MED 6120 is required for licensure.

## **MED 6120 - Advanced Classroom Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Eclectic review of the popular teacher-pupil interaction models as they are classified into ideological camps and effect, and management and strategies for the classroom. This course or MED 6110 is required for licensure.

## **MED 6130 - Topic in Education: (i.e., School Finance, Cooperative Learning, TRIBES, Teaching for Inquiry, etc.)**

**Credits: (1-3)**

**Typically taught:**

**Summer [1st Blk]**

This course explores a topic receiving current attention by educators and the public and deemed worthy of in-depth study. Credit will be determined by the nature of the topic.

## **MED 6140 - Adolescent Development**

**Credits: (2)**

Study of physical, mental, social, and psychological characteristics of adolescents, their needs and problems, and methods of working with those who have behavior problems.

## **MED 6150 - Action Research in the Classroom**

**Credits: (2)**

Students will explore effective classroom-based research techniques, complete classroom-based research projects, and engage in ongoing application of action research for the improvement of teaching practice.

### **MED 6160 - Effective Mentoring in the Classroom**

**Credits: (2)**

Course will cover strategies for effectively mentoring student teachers and novice teachers by expert teachers. Expectations for the course include journal keeping, writing assignments, and mentoring project.

### **MED 6180 - Teaching Interpersonal Skills**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Study and application of interpersonal skills leading to the application and teaching of selected techniques and systems in the classroom.

### **MED 6200 - Current Trends in Early Childhood Education**

**Credits: (3)**

**variable title**

A variable title advanced course in Early Childhood Education (birth through age eight) based upon examination of the current trends in curriculum and instruction for young children. When this number is used it will be accompanied by a brief and specific descriptive title, i.e. literacy, math, science. May be repeated 2 times up to 9 credit hours.

### **MED 6201 - Coaching EC/ECE Professionals: Foundation & Organization of Coaching Application: Organization & Self Reflection**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Educator coaching is an evidence-based strategy to increase program quality and teacher effectiveness in early childhood/early childhood education classrooms, programs, and home delivery systems. This course will train EC/ECE coaches using material from research-based sources, program experiences, and related theory. Participants will learn recommended practices in coaching related to early childhood and develop a systematic, individualized approach to effective coaching. Participants will learn practical strategies for coaching early childhood staff of diverse backgrounds and varying adult learning styles. Materials and discussions will include theory, research, interpersonal communication skills, and a systematic approach to more intentional coaching. Students will apply these strategies to Case Studies and field work experiences throughout the course and will participate in hands-on activities in class to apply new skills. Educator coaching skills will apply to any early childhood/early childhood education curriculum or model. This is course 1 of a three course series for the Utah Coaching Credential.

### **MED 6202 - Coaching EC/ECE Professionals: Connecting Awareness with Application & Deepening of Practice**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Becoming an effective educator coach is a result of theoretical understanding, introspection, thoughtful planning, application of coaching skills and knowledge, and continuous self-improvement. This course will identify effective ongoing support strategies for individuals providing educator coaching. Participants will integrate skills with effective application in real life coaching experiences. Discussions will include self-reflective practices, self-directed action, planning and goal setting, and managing progress and accountability. Students will apply these strategies to case studies and real life experiences throughout the course. Students will be encouraged to engage in self-reflection and share ideas, successes, and challenges with other students in this course. This is course 2 in a three course series for the Utah Coaching Credential. Prerequisite: CHF 4201/MED 6201 or instructor permission.

## **MED 6203 - Coaching EC/ECE Professionals: Attuning for Personal and Organizational Change**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The success of the educator coaching relationship has been based on the trusting relationship between two peers, coach, and adult learner, through a collaborative process of co-learning. The opportunity for the adult learner to self-monitor, self-analyze, and self-modify enhances the adult learner's own resourcefulness and alters his/her own personal understanding. In addition, when the act of coaching is a collaborative process, the coach is also allowed the same opportunity to reflect on self as part of their learning. This course is designed to support the coach in creating a social learning climate where a synergy of shared learning and reflective dialogue about practice are examined, analyzed and refined. Participants will integrate skills from Course 1 and 2 with opportunities to engage in conducting and constructing ongoing support strategies the coach can apply, refine and alter based on the adult learners' needs, readiness, and values about practice. Using strategies and protocols, coaching for organizational change in diverse settings (home-based programming, early care settings, classrooms, and school districts, etc.), and identifying effective ongoing personal supports will also be addressed. Students will apply these strategies to case studies and real life experiences throughout the course. This is course 3 of a three course series for the Utah Coaching Credential. Prerequisite: CHF 4201/MED 6201 and CHF 4202/MED 6202 or instructor approval.

## **MED 6210 - School Law**

**Credits: (3)**

Considers the rights and responsibilities of students, teachers, and other educational practitioners. Relates these to school programs and operations as determined by state and federal constitutions, laws, and court decisions.

## **MED 6220 - Current Problems in Education**

**Credits: (3)**

**Typically taught:**

**Summer [1st Blk]**

A survey course which identifies and gives opportunity to research current problems in education at national, state, and local levels. Solutions and responses are developed from the research to address problems.

## **MED 6229 - Instructional Technology for Pre-service Teachers**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course allows students to apply existing technology literacy into educational environments to promote use of technology for teaching and instructional support in learning environments. The curriculum is based on teacher skills required to teach Utah State Educational Technology Standards. Prerequisite: Verification of technology literacy training (through coursework or job experience) within the past five years.

## **MED 6230 - Instructional Technology for Teachers**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [1st Blk]**

Designed for students who have had a prior introduction to technology. Topics could include classroom applications of

technology, software evaluations, and technology integration. Prerequisite: Verification of technology literacy training (through coursework or job experience) within the past five years.

### **MED 6240 - Foundations of Teaching for Cultural and Language Differences**

**Credits: (2)**

This course will address the nature of pluralism in American Society, including but not limited to exploration of multiculturalism, bilingualism, first and second language acquisition and instructional strategies. Establishes the core foundations for valuing diversity.

### **MED 6250 - Second Language Acquisition: Theories and Implementation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course explores second language acquisition processes, current theories, and effective strategies as a knowledge base in planning appropriate curriculum and instruction for English language learners.

### **MED 6265 - Foundations of Inclusive Teaching**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [2nd Blk]**

This course, designed for non-special education teacher candidates, will introduce candidates to the legal, philosophical, historical, and ethical foundations of special education. An emphasis is placed on strategies and methods for instructing students with exceptionalities in the general education setting and the expanded roles and responsibilities of school personnel for providing appropriate educational experiences for all students. Prerequisite: Admission to the masters of education program.

### **MED 6270 - Literacy Strategies for Teaching English Language Learners**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course will examine literacy strategies for English Language Learners. Teacher candidates will learn how to apply literacy strategies to teach reading, writing, listening and speaking skills, while including culture, to scaffold language development in both the second language and mainstream classrooms.

### **MED 6280 - Family and Community Involvement in Education**

**Credits: (2)**

Examination of methods which would facilitate the interaction between the parent/community and the teacher/school through reciprocal communication, home-based involvement, school-based involvement and decision making. Special emphasis will be given to the importance of parental involvement in the education of second language learners.

### **MED 6300 - Conducting Qualitative Research**

**Credits: (3)**

Designed as an introduction to the philosophy, theory, and methodology of qualitative research. This course is a companion course to MED 6080, Conducting Educational Research. Special emphasis is placed on designing qualitative research proposals for master's degree projects.

### **MED 6311 - Content Instruction in the Elementary School: Science**

**Credits: (2)**

**Typically taught:**

**Summer [1st Blk]**

Explores new concepts in curriculum and methods of science instruction in the elementary schools. This course is required for elementary licensure.

### **MED 6312 - Content Instruction in the Elementary School: Mathematics**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Explores new concepts in curriculum and methods of mathematics instruction in the elementary schools. This course is required for elementary licensure.

### **MED 6313 - Content Instruction in the Elementary School: Social Studies**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Explores new concepts in curriculum and methods of social studies instruction in the elementary schools. This course is required for elementary licensure.

### **MED 6314 - Reading Instruction in Elementary Schools**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

An exploration of current research theories and their pedagogical implications related to teaching vocabulary, reading comprehension, fluency, phonics, and phonemic awareness in elementary school classrooms. This course is required for elementary licensure.

### **MED 6316 - Language Arts Instruction in Elementary Schools**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Students will explore theory, instructional methodology, and activities for supporting students in developing expertise in the essential skills of communication: listening, speaking, reading, writing, viewing, and visually representing. This course is required for elementary licensure.

### **MED 6317 - Arts Integration for Elementary Teachers**

**Credits: (2)**

**Typically taught:**

**Summer [1st Blk]**

This course is designed to prepare students to successfully teach the arts in the elementary classroom. Students are expected to design, prepare, and teach lessons to engage elementary students in arts and music activities. State curriculum guidelines will be reviewed and discussed.

### **MED 6320 - Content Area Literacy Instruction**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer/odd years[Online]**

Use of reading as an effective means to help students comprehend their course material. Explores how to incorporate these skills into the curriculum of the content areas. This course is required for secondary licensure.

### **MED 6330 - Using Children's Literature and Informational Text in the Classroom**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course will provide a broad basis for using children's literature for instructional purposes in elementary classrooms to enhance literacy development.

### **MED 6340 - Reading Assessment and Instructional Interventions**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Assessment of reading problems and corrective procedures for remediation in elementary classrooms.

### **MED 6350 - Reading Comprehension Instruction**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An exploration of current research theories and their pedagogical implications related to teaching vocabulary, reading comprehension, and metacognition. This course is required for the Level 1 Reading Endorsement.

### **MED 6352 - Early Literacy Instruction (K-6)**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to focus on the research on emergent and early literacy development so that teachers may construct well-designed, appropriate literacy learning environments, and experiences for young language learners. Because this is an advanced course, students will be expected to have a reading background in early literacy. This course is required for the Level 1 Reading Endorsement.

### **MED 6353 - Understanding and Supporting Reading Development (grades 6-12)**

**Credits: (3)**

**Typically taught:**

**Summer [2nd Blk]**

This course is to help practicing secondary teachers acquire skills and strategies to support struggling readers.

Specifically, this course will provide teachers with a systematic and ongoing approach to classroom intervention to prevent continued failure in reading. Required for the Level 1 Basic Secondary Reading Endorsement.

### **MED 6354 - Literacy Leadership and Professional Development**

#### **Credits: (2)**

This course is designed to increase understanding of the administration and supervision of school literacy programs. Major topics will include: professional development, school/community relations, mentoring partnerships, student diversity, curriculum evaluation and development, and assessment. This course is required for the Reading Specialist Endorsement. Prerequisite: Basic Reading Endorsement.

### **MED 6355 - Research in Reading**

#### **Credits: (3)**

This course will engage students in studying and understanding primary research documents in reading. Students will be guided to explore both classical and contemporary reading research studies. Students will also be instructed in basic research techniques in reading. This course is required for the Reading Specialist Endorsement. Prerequisite: Level 1 Basic Reading Endorsement.

### **MED 6356 - Internship in Reading**

#### **Credits: (3)**

This course is a field-based experience designed to give students an opportunity to work with curriculum and school leaders for improving reading instruction on a district or school level. Prerequisite: Level I Basic Reading Endorsement, MED 6354, MED 6355. The course is graded Credit/No Credit.

### **MED 6360 - Foundations of Literacy**

#### **Credits: (3)**

**Typically taught:**  
**Summer [1st Blk]**

An exploration of current reading, oral and written language theories, and their applications for the improvement of literacy practices in schools.

### **MED 6375 - Foundations of Dual Immersion or Immersion Education**

#### **Credits: (3)**

The course examines the background, underlying theory, and research foundations that support dual language and immersion education practices. Issues for teachers and administrators will be addressed. Practices and principles that inform language attentive curriculum will be a focus of the course.

### **MED 6380 - Values Education**

#### **Credits: (3)**

**Typically taught:**  
**Summer [Hybrid]**

Designed for teachers, administrators, parents and community leaders. Examines the developmental processes of socialization and moral development. Four separate approaches of values education are evaluated.

### **MED 6415 - Content-Based Second Language Curriculum, Instruction and Assessment**

#### **Credits: (3)**

Participants in this course learn to plan curriculum and instruction for dual language and immersion classrooms that

combine language and content goals using standards-based and backwards design approaches. They also learn a range of classroom-based strategies for assessing language and content.

### **MED 6420 - Foundations of Education of the Gifted**

**Credits: (3)**

An overview of education for the gifted and talented: historical and philosophical background; characteristics, needs, and developmental patterns of the gifted; issues in identification, differentiating curriculum and educational program options; special populations of gifted students.

### **MED 6430 - Creative Processes in the Elementary School**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course focuses on the development of attitudes, methods, and skills in creative teaching, including an exploration of using music, art, dance, and drama in the elementary classroom. Graduate students will also explore philosophy, research, and theories which support arts integration, and development of teaching strategies and materials for use in the elementary classroom.

### **MED 6440 - Social and Emotional Needs of the Gifted**

**Credits: (2)**

This course examines social and emotional developmental needs of gifted and talented children and proposes strategies for recognizing and meeting those needs in classrooms and with families.

### **MED 6450 - Creativity and Applied Imagination**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Exploration and development of readily available personal and community resources to encourage creative thinking/reasoning, classroom involvement, and transfer of learning.

### **MED 6470 - Teaching for Thinking**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Theory and practice for teaching thinking skills in elementary, middle, and high school classrooms.

### **MED 6480 - Differentiated Curriculum for the Gifted**

**Credits: (3)**

Curriculum theories and educational strategies for educating gifted and talented students. A practical course with special attention to the development of instructional materials appropriate for use by gifted students in special programs as well as in the regular classroom.

### **MED 6490 - Assessment and Evaluation in Education of the Gifted**

**Credits: (3)**

Principles of assessment applied to identification of gifted and talented students including identification of gifted in minority populations, diagnosis of student learning needs, learning styles, evaluation of student progress, and evaluation of program effectiveness.

### **MED 6495 - Action Research in Education of the Gifted**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This is a capstone course in the program leading to a Utah teaching endorsement in education of the gifted and talented and meets the USOE endorsement requirement for a field experience or practicum in education of the gifted by requiring a community-based project in which learning from previous endorsement courses is synthesized in a practical way. Students are expected to take initiative in planning, implementing, documenting, and evaluating meaningful action research projects relevant to education of the gifted and talented. Prerequisite: Bachelor's degree, teaching license, and MED 6420, MED 6480, MED 6490.

### **MED 6510D - Advanced Foundations in Special Education Practice & Law (Special Education License)**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course focuses on the learning and social characteristics of young people with exceptionalities – that is, disabilities (physical, mental, learning) or giftedness – and about public policy and services available to them. As future teachers, students will learn about how such individuals are identified and served by the school system, what strategies are effective for instructing them, and roles and responsibilities of school personnel in providing appropriate educational experiences for all students in an inclusive classroom. Prerequisite: Admission to Masters of Education.

### **MED 6515 - Foundations in Special Education: Law and Practice**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [2nd Blk]**

This course will introduce students to the philosophical, historical, legal, and ethical foundations of special education. Students will examine in depth the laws and practices related to special education and how those laws are influencing children with special needs today. Students will also learn about individuals with special needs as they are identified and served in our school system.

### **MED 6520 - Collaboration, Consultation, and IEP Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Roles of the special educator and families. IEP development, Least Restrictive environment, managing multidisciplinary team activities, and techniques of collaboration and consultation.

### **MED 6521 - Practicum in Special Education**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This Practicum experience will focus on examining in depth the lives of students with mild to moderate disabilities in school, home, and community settings. Students will be introduced to the IEP process and will practice developing collaborative relationships within school settings. This Practicum must be taken either concurrently with, or after completion of MED 6520.

### **MED 6530 - Principles and Applications of Special Education Assessment**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Administer, score, and interpret norm-referenced assessment instruments, analyze in combination with data from other assessment processes, and use to determine eligibility and develop educational programs.

### **MED 6540 - Advanced Managing Student Behavior**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will address current issues, practices, and application of a variety of approaches for behavior change. It is designed to teach students validated classroom management strategies, behavioral intervention strategies and techniques for use with students who have behavioral and social skill deficits. The primary goal of this course is for each student to conduct a functional assessment and implement and evaluate a behavior intervention plan. Prerequisite: MED 6520.

### **MED 6550 - Advanced Instructional Planning and Learning Environments for Special Education Students**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Effective teaching methods, instructional programming and modification of curriculum for students with disabilities. A direct instruction model is emphasized. Prerequisite: Admission to Masters of Education.

### **MED 6555 - Advanced Instructional Methods and Practicum: Reading**

**Credits: (4)**

This course is designed to introduce principles and techniques for diagnosis and remediation of reading problems. The course will cover student characteristics and school setting demands which contribute to lack of success in reading classrooms. Field experience required.

### **MED 6560 - Advanced Instructional Methods and Practicum: Mathematics**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Assessment and diagnosis of mathematics problems and corrective procedures for remediation. This course focuses on

the needs of students with learning problems or who are at-risk for school failure. Students will apply the concepts learned in an action research project in a K-12 classroom.

### **MED 6565 - Advanced Instructional Methods and Practices: English Language Arts**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to prepare teacher candidates to teach English Language Arts to elementary and secondary students. Teacher candidates learn to identify reading and writing difficulties, using evidence-based interventions. They will also learn how to implement effective instruction, using data-based instructional decision model to monitor students' ELA progress. This course is to be taken concurrently with MED 6860 Practicum in Education. Co-Requisite: MED 6860.

### **MED 6570 - Advanced Instructional Methods and Practicum: Written Expression**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to introduce principles and validated strategies for teaching written expression to students with mild/moderate disabilities. The course will cover student characteristics and school setting demands that contribute to lack of success in written expression. Field experience required.

### **MED 6575 - Advanced Instructional Methods and Practices: Mathematics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The purpose of this course is to prepare teacher candidates to teach mathematics to Tier 2 and 3 students in elementary and secondary classrooms. Teacher candidates will acquire a set of skills that will enable them to determine what math concepts to teach to pupils and effective instructional methods to aid in the teaching of these concepts. This course is to be taken concurrently with MED 6860 Practicum in Education. Co-Requisite: MED 6860.

### **MED 6580 - Advanced Learning Strategies and Transition for Special Education Students**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Effective teaching methods, strategies, and practices for secondary age level students with disabilities. A cognitive learning strategies approach is emphasized. Prerequisite: Admission to Masters of Education.

### **MED 6581 - Pre-Student Teaching in Special Education**

**Credits: (4)**

**Typically taught:**

**Not currently being taught.**

The purpose of pre-student teaching is to continue field experience in a supportive and professional manner. The student will have the opportunity to experience teaching and the responsibilities that it entails under the direct guidance of the cooperating teacher and the course instructor. This course is designed to provide students with practical experiences in the areas of: (a) assessment, (b) behavior management, (c) curriculum and instruction for students K-12, and (d) planning and developing post secondary transition plans. Prerequisite: EDUC 4521/MED 6521 Practicum in Special

Education, with a grade of B or better. Must be taken either concurrently with, or after completion of, EDUC 4530/MED 6530, EDUC 4540/MED 6540, EDUC 4550/MED 6550, and EDUC 4580/MED 6580.

### **MED 6610 - Life Science for Elementary Teachers**

#### **Credits: (3)**

This course provides a background in concepts relating to living organisms and the interactions among them and their environment. The flexibility of these concepts is examined in light of research activities.

### **MED 6620 - Physical Science for Elementary Teachers**

#### **Credits: (3)**

Basic concepts of the physical sciences (chemistry and physics) are covered. The importance of the scientific method and the design of experiments is addressed as well as basic facts and discoveries. Hands-on laboratory activities are an important part of the course.

### **MED 6630 - Earth Science for Elementary Teachers**

#### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

A background in basic concepts relating to the formation, development, and history of the earth is provided. General concepts of the structure, composition, and modification of the planet (atmosphere, lithosphere, and hydrosphere) are investigated through laboratory activities applicable to elementary classrooms. Activities emphasize inquiry and appropriate activities for developing content, process skills, laboratory skills, and positive attitudes toward science.

### **MED 6640 - The World As A Classroom**

#### **Credits: (1-3)**

#### **variable title**

This course is designed to provide enrichment opportunities for those who undertake either domestic or foreign travel to participate in study tours, research, and other professional development experiences. It offers participants an opportunity to learn outside the classroom in locations available only through travel. May be repeated up to 3 credit hours.

### **MED 6650 - Understanding Science**

#### **Credits: (3)**

This course will examine the nature of science, the philosophy of science, and research in science education. Students will engage in authentic scientific research.

### **MED 6661 - Life Science for Secondary Teachers: Zoology**

#### **Credits: (3)**

This course examines basic concepts relating to living organisms, interactions among them, and relationships with their environment. Concepts of structure, function, ecology, behavior, and evolution will be investigated through laboratory activities applicable to secondary classrooms. Content relates to current areas of public concern and advances in the life sciences.

### **MED 6662 - Life Science for Secondary Teachers: Microbiology**

#### **Credits: (3)**

This course examines basic concepts relating to living organisms, interactions among them, and relationships with their environment. Concepts of structure, function, ecology, behavior, and evolution will be investigated through laboratory

activities applicable to secondary classrooms. Content relates to current areas of public concern and advances in the life sciences.

### **MED 6663 - Life Science for Secondary Teachers: Botany**

#### **Credits: (3)**

This course examines basic concepts relating to living organisms, interactions among them, and relationships with their environment. Concepts of structure, function, ecology, behavior, and evolution will be investigated through laboratory activities applicable to secondary classrooms. Content relates to current areas of public concern and advances in the life sciences.

### **MED 6670 - Physics for Secondary Teachers**

#### **Credits: (3)**

A background in the basic concepts of physics is provided. Topics include laws of motion, gravity, energy, light, heat, sound, electricity, magnetism, atomic and nuclear physics, radioactivity, and relativity. Laboratories investigate concepts applicable to secondary classrooms. Activities associate science content with appropriate activities designed to develop process skills, laboratory skills, and positive attitudes toward science.

### **MED 6680 - Chemistry for Secondary Teachers**

#### **Credits: (3)**

A background in the basic concepts related to matter, its properties, and its reactions is provided. Laboratories investigate concepts applicable to secondary classrooms. Activities associate science content with appropriate activities designed to develop process skills, laboratory skills, and positive attitudes toward science.

### **MED 6691 - Earth Science for Secondary Teachers: Geology**

#### **Credits: (3)**

A background in basic concepts relating to the information, development, and history of the earth is provided. General concepts of the structure, composition, and modification of the planet's lithosphere are investigated through laboratory activities applicable to secondary classrooms. Activities emphasize inquiry and appropriate activities for developing content, process skills, laboratory skills, and positive attitudes toward science.

### **MED 6692 - Earth Science for Secondary Teachers: Meteorology**

#### **Credits: (3)**

A background in basic concepts relating to the information, development, and history of the earth is provided. General concepts of the structure, composition, and modification of the planet's atmosphere are investigated through laboratory activities applicable to secondary classrooms. Activities emphasize inquiry and appropriate activities for developing content, process skills, laboratory skills, and positive attitudes toward science.

### **MED 6693 - Earth Science for Secondary Teachers: Oceanography**

#### **Credits: (3)**

A background in basic concepts relating to the information, development, and history of the earth is provided. General concepts of the structure, composition, and modification of the planet's hydrosphere are investigated through laboratory activities applicable to secondary classrooms. Activities emphasize inquiry and appropriate activities for developing content, process skills, laboratory skills, and positive attitudes toward science.

### **MED 6730 - Mathematics for Teaching K-8: Assessment and Intervention**

#### **Credits: (3)**

Practicing teachers will gain a deeper understanding of the various types of assessment and their appropriate use for

guiding instruction, intervention, and evaluation of student learning of mathematics content. This course is part of the Elementary Mathematics Endorsement.

### **MED 6860 - Practicum in Education**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Practical synthesis and application of knowledge and skills gained in previous education courses. Students must have approval from the program director, and should follow specific graduate certificate in teaching program guidelines for prerequisites and other requirements. This course does not grant credit towards the MED degree, but is required for a teaching license in the state of Utah. This course may be repeated three (3) times for credit.

### **MED 6870 - Student Teaching in Elementary Education for MED Students**

**Credits: (3-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [limited opportunities]**

The student teaching experience is the culminating learning experience for the elementary licensure track. Student teaching is a time for developing one's classroom management style, instructional design, and collaborating with a mentor teacher. Student teaching is a rigorous experience, which is carefully planned, guided, assessed, and evaluated. Offered CR/NC only; this course does not grant credit towards the MED degree but is required for a teaching license in the state of Utah. Prerequisite: MED 6860, MED 6110 or MED 6120, MED 6050, MED 6265, MED 6020, MED 6311, MED 6312, MED 6313, MED 6314, MED 6316.

### **MED 6880 - Student Teaching in Secondary Education for MED Students**

**Credits: (3-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Student teaching experience, with supervision, in a public school to synthesize theory and practice from previous education courses. Offered CR/NC only; this course does not grant credit toward the MED degree but is required for a teaching license in the state of Utah. Prerequisite: MED 6860, MED 6020, MED 6060, MED 6120 or MED 6110, MED 6050, MED 6320, and MED 6265.

### **MED 6890 - Student Teaching in Special Education for MED Students**

**Credits: (4-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The student teaching experience is the culminating learning experience for the special education licensure track. Student teaching is a time for developing one's classroom management style, instructional design, and collaborating with a mentor teacher. Student teaching is a rigorous experience, which is carefully planned, guided, assessed, and evaluated. Offered CR/NC only; this course does not grant credit towards the MED degree but is required for a teaching license in the state of Utah. Prerequisite: MED 6050, MED 6515, MED 6530, MED 6540, MED 6565, MED 6575, MED 6580, and MED 6860.

### **MED 6900 - Individual Study**

**Credits: (1-3)**

Intended for the candidate who has special needs and who would benefit from an individual study program. Forms are available from Room ED 234 MEd program office and must be approved by the instructor and the director at time of registration. May be repeated up to 3 credit hours.

### **MED 6920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

In order to provide flexibility and to meet many different needs, a number of specific offerings are possible using this catalog number. When the number is used it will be accompanied by a brief and specific descriptive title. The specific title with the credit authorized for the particular offering will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

### **MED 6990 - Continuing Graduate Advisement**

**Credits: (1)**

This course is used to fill the continuous enrollment requirement while completing the Master's project. The course is graded Credit/ No Credit.

### **MENG 5010G - Introduction to Linguistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course introduces students to the scientific study of language. It explores what languages have in common, as well as what distinguishes them. Students learn basic analytic techniques in articulatory phonetics, phonology, morphology, syntax, and semantics and apply them to data drawn from various languages. These core concepts may be expanded and applied to other areas, such as language acquisition, language history, language and culture, language and thought, and language and literary expression. This course is designed for students with bachelor's degrees who have no upper-division undergraduate coursework in linguistics.

### **MENG 5020G - Introduction to the Study of Language for Teachers**

**Credits: (3)**

This course is designed for English teaching majors and minors. It introduces students to the nature of language and linguistics and reviews the elements of traditional grammar. This course surveys prescribed applications for prospective secondary school English teachers, including language variation, contemporary alternatives to traditional grammar, the history of English, and linguistics and composition. This course is designed for students who have no upper-division undergraduate coursework in linguistics.

### **MENG 5050G - Grammar, Style, and Usage for Advanced Writing**

**Credits: (3)**

This course presents the concepts and nomenclature of traditional grammar as a context for students wishing to increase their control of punctuation, style, and usage to become more proficient writers. Its offers practical guidance in how grammatical concepts can be applied to revising and editing one's own or others' writing to more effectively express one's

intended meaning. The course is designed for students with bachelor's degrees who have no upper-division undergraduate coursework in linguistics.

### **MENG 5080G - Critical Approaches to Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

Students will study and practice critical approaches to literature. The course will begin with New Criticism and proceed to study more resistant reading strategies such as feminism, Marxism, and deconstruction. Students will not only learn the theoretical premises behind these theories, but also practice explicating various texts from a particular critical perspective.

### **MENG 5510G - World Literature**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from a variety of eras and of authors and regions outside the United States and Great Britain. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same period was applied toward an undergraduate degree.

### **MENG 5520G - American Literature: Early and Romantic**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the late eighteenth century to the decades just before the Civil War. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same period was applied toward an undergraduate degree.

### **MENG 5530G - American Literature: Realism and Naturalism**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the Civil War through World War I. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

### **MENG 5540G - American Literature: Modern**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the first half of the twentieth century. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards an undergraduate degree.

**MENG 5550G - American Literature: Contemporary**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the 1950s to the present. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5570G - American Literature I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk; 2nd Blk]**

This course will introduce students to the study of American Literature from its earliest known works to those produced prior to the American Civil War. We will examine its history, major works, and literary concepts.

**MENG 5580G - American Literature II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk; 2nd Blk]**

This course will introduce students to the study of American Literature from the American Civil War to the contemporary period. We will examine its history, major works, and literary concepts.

**MENG 5610G - British Literature: Medieval**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the eighth century to the end of the fifteenth century. Works written in Anglo-Saxon English and northern medieval dialects will be read in modern translations. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5620G - British Literature: Renaissance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the beginning of the sixteenth century to the middle of the seventeenth. This

course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5630G - British Literature: Neoclassical and Romantic**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the late seventeenth century to the early nineteenth century. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5640G - British Literature: Victorian**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from 1830 until roughly World War I. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5650G - British Literature: Modern**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts from the first half of the twentieth century. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5660G - British Literature: Contemporary**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read British and Anglo-Irish literature since 1950. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5670G - British Literature I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk; 2nd Blk]**

This course will introduce students to the study of British Literature from its earliest known works to those produced in the eighteenth century. We will examine its history, major works, and literary concepts.

**MENG 5680G - British Literature II**

**Credits: (3)**

**Typically taught:**

**Fall [Full sem]**

**Spring [Full Sem]**

**Summer [1st Blk; 2nd Blk]**

This course will introduce students to the study of British Literature from the eighteenth century to the contemporary period. We will examine its history, major works, and literary concepts.

**MENG 5730G - Literature of Cultures and Places**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students in this course read texts focusing on a single national culture or works from various cultures. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5750G - Classical Literature**

**Credits: (3)**

Students in this course read texts from the Golden Age of Greece to the fall of the Roman Empire. This course may not be applied to graduate degree requirements if an undergraduate survey covering the same time period was applied towards undergraduate degree.

**MENG 5840G - Methods and Practice in Tutoring Writers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Faculty supervised experience in tutoring student writers in all disciplines. This course is limited to teaching assistants in the MENG program.

**MENG 5850G - Principles & Practicum in Tutoring Writing**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides writing center tutors with the theoretical knowledge of the writing process critical to effective tutoring. In addition, the course provides students with an understanding of various approaches to and methods of tutoring. The course is effectively divided into three parts: tutoring and writing theory, College Reading and Learning Association certification, and practicum.

## **MENG 5920G - Short Courses, Workshops, Institutes and Special Programs**

### **Credits: (1-4)**

In order to provide flexibility and to meet many different needs, a number of specific offerings are possible using this catalog number. When the number is used it will be accompanied by a brief and specific descriptive title. The specific title with the credit authorized for the particular offering will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours.

## **MENG 6005 - Intercultural Classroom Discourse**

### **Credits: (3)**

Students will read, discuss and experience interactive learning tools from the fields of sociolinguistics, intercultural communication, and TESOL pedagogy. Students will analyze dialects and personal/social conversational styles. Examples from literature and film will help provide a contextualized means of observing and understanding cultural identities.

## **MENG 6010 - Introduction to Graduate Studies**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students will learn research methods and methodologies that will allow them to produce publishable, sophisticated pieces of academic prose of the kind expected of professional academics. Students will compose abstracts, conference paper proposals, annotated bibliographies, and surveys of scholarship. Students will explore academic databases extensively and learn to evaluate rigorously other scholars' work. Students will be encouraged to submit their work in the class to journals, conferences, or collections of essays. Students should take this course within their first year of study and focus their research on topics that may support future work on a thesis or project. Required in first or second semester.

## **MENG 6030 - Studies in Literary Theory and Criticism**

### **Credits: (3)**

#### **Variable Title**

Students will study influential works in literary theory--potentially ranging from Plato's REPUBLIC to Gayatri Spivak's groundbreaking feminist studies to Stephen Greenblatt's New Historicist studies to Homi Bhabha's postcolonial analyses--paying specific attention to the influence of these theories on English studies. May be repeated 10 times for credit hours with different content.

## **MENG 6110 - Writing for Teachers**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

Designed primarily for in-service teachers, this course explores the most current research and theory concerning the teaching of writing and applies it to issues in the secondary classroom. Permission of instructor required to register.

## **MENG 6120 - Teaching Traditional and Contemporary Young Adult Literature**

### **Credits: (4)**

#### **Typically taught:**

**Spring [Full Sem]**

This course provides a broad, practical background in young adult literature, both traditional and contemporary, with emphasis on current theories and methods in literature pedagogy. Selection and evaluation of texts that appeal to young adults, reading strategies, censorship, themes and genres will be given special attention. Prerequisite: MED

6050 Curriculum Design, Evaluation, Assessment (3) must be taken prior to MENG 5210G/6120. We strongly recommend that MENG 6110 Writing for Teachers (3) or MENG 6230 Wasatch Range Writing Project Summer Institutes (3) be taken prior to MENG 5210G/6120. MENG 5210G and MENG 6120 must be taken concurrently. Permission of instructor required to register.

### **MENG 6210 - Teaching Literature in the Secondary Schools**

#### **Credits: (3)**

Designed primarily for in-service teachers, this course explores the most current research and theory concerning the teaching of literature and applies it to issues in the secondary classroom.

### **MENG 6230 - Wasatch Range Writing Project Summer Institute**

#### **Credits: (1-6)**

#### **Typically taught:**

**Summer [1st Blk, 2nd Blk]**

This course is designed to follow the National Writing Project model. The four-week Invitational Institute is for inservice teachers nominated by their school district or their peers. It is designed to develop leadership skills in those teachers to enable them to impact the quality of writing instruction in their individual schools and district. It is also designed to develop teacher leadership for the Wasatch Range Writing Project. The One Week Open Institute is open to any inservice teacher wishing to improve writing instruction in his/her classroom. Can be repeated once up to eight (8) credit hours total. Permission of instructor required to register.

### **MENG 6231 - Wasatch Range Writing Project Advanced Institute**

#### **Credits: (1-6)**

#### **Variable Title and Credit Course**

This is a variable topics variable title course designed for Wasatch Range Writing Project Teacher Consultants, teachers who have taken the WRWP Summer Institute and work with WRWP providing professional development to local school districts. It allows those teachers to increase their effectiveness as teachers, add to their expertise for work with inservice teachers and research possible solutions to literacy issues facing elementary and secondary education in our region. Course titles may include: Developing Utah State Core Standards Workshops, Digital Writing, Developing Argument Writing Across the disciplines. Only six hours can be used for meeting elective requirements in the MENG program. Prerequisite: Six hours credit in MENG 6230. May be repeated 6 times and up to 18 credit hours.

### **MENG 6240 - Seminar in American Literature**

#### **Credits: (3)**

#### **Variable Title**

This seminar explores major texts of one particular American era. The course focuses on literature which articulates the selected period. This variable emphasis course may be repeated 10 times for credit with different content.

### **MENG 6250 - Seminar in British Literature**

#### **Credits: (3)**

#### **Variable Title**

This seminar explores major texts of one particular British era. This course focuses on the literature which articulates the selected period. This variable emphasis course may be repeated 3 times up to 6 credit hours with different subject matter.

### **MENG 6260 - Seminar in World Literature**

#### **Credits: (3)**

#### **Variable Title**

This seminar explores literature other than American or British. The course focuses on the literature which articulates the selected time and place. This variable emphasis course may be repeated 10 times for credit with different subject matter.

### **MENG 6280 - TESOL Practicum**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

TESOL practicum provides guided and supported experience in one or more of the following: tutorial, small group teaching, whole class lesson planning. Candidates will practice a variety of instructional modes for speaking, reading and writing. Instructor permission is required for registration.

### **MENG 6310 - Language and Linguistics for Teachers**

**Credits: (3)**

Designed primarily for in-service teachers, this course explores recent research in linguistics and applies it to issues in the secondary classroom.

### **MENG 6320 - World Languages**

**Credits: (3)**

This course broadens students' awareness of diversity among the world's languages, thereby fostering understanding and appreciation of the nature of human language in general. Issues may include language obsolescence and maintenance, writing systems of the world, prosody and poetic forms in other languages, language history, and language families. Some prior experience in linguistics or language structures will be helpful as students study profiles of selected languages representing major language families of the world and various geographical areas.

### **MENG 6330 - Literary and Rhetorical Stylistics**

**Credits: (3)**

This course surveys the literature on style in linguistics, literature, and rhetoric. Some prior background in grammar will be useful as students engage in quantitative and qualitative stylistic analysis of texts from a literary period, genre, or particular author and learn how diction, syntax, and figurative language can be deployed to communicative and artistic ends.

### **MENG 6400 - Multicultural Perspectives on Literature for Young People**

**Credits: (3)**

This course examines the theories of literature and multicultural education for young people K-12, as well as the use of multicultural literature in and out of the classroom. Students will apply the latest critical and pedagogical theories to extensive readings in Young Adult literature. This course is especially suited to in-service teachers, librarians and others who work with young people.

### **MENG 6410 - Strategies and Methodology of Teaching ESL/Bilingual**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

This course emphasizes practical strategies and methods of teaching English as a Second Language in elementary and secondary schools.

## **MENG 6420 - English Phonology and Syntax for ESL/Bilingual Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course provides the foundation for ESL/Bilingual teachers in the workings of the English language: its pronunciation and spelling systems, its word-forming strategies, and its sentence structure patterns.

## **MENG 6450 - ESL/Bilingual Assessment: Theory, Methods, and Practices**

**Credits: (3)**

This course explores how to evaluate and implement assessment processes effectively for ESL/Bilingual pupils in public schools. Students will gain experience with both standardized test and authentic assessment.

## **MENG 6510 - Seminar in Eminent Writers:**

**Credits: (2-3)**

**Variable Title**

This seminar examines significant works of and relevant criticism on an influential writer or a small group of writers. This variable emphasis course may be repeated 10 times for credit with different subject matter.

## **MENG 6520 - Seminar in Shakespeare**

**Credits: (3)**

**Typically taught:**

**Summer [2nd Blk]**

This seminar examines a range of Shakespeare's major works as well as relevant criticism.

## **MENG 6610 - Advanced Studies in Genre**

**Credits: (2-3)**

**Variable Title**

Students will analyze primary and secondary texts about one genre or sub-genre to develop a definition and understanding of the form. This variable emphasis course may be repeated 10 times for credit with different subject matter.

## **MENG 6710 - Variable Topics**

**Credits: (2-3)**

**Variable Title**

Topics will vary based on student interest and instructor expertise. This course may be repeated 10 times for credit with different subject matter.

## **MENG 6730 - Creative Writing Forms and Crafts**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Fall [Full Sem]**

This course will investigate the relationship of form and function in creative work and explore how the underlying structure affects the impact of the work. This course will examine a variety of work to examine the effect of formal choices

on readers' response. The course will then put these strategies and insights to work by drafting, workshopping, and revising students' own original writing. May be repeated 2 times and up to 9 credit hours.

### **MENG 6740 - Creative Nonfiction Writing**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Spring [Full Sem]**

In this course, students will study the art and craft of writing creative nonfiction. Along with writing their own original work, students will read a variety of contemporary texts and will critique their peers' writing. May be repeated 2 times and up to 9 credit hours.

### **MENG 6750 - Fiction Writing**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Summer [Full Sem]**

In this course, students will study the art and craft of writing fiction. Along with writing their own original work, students will read a variety of contemporary texts and will critique their peers' writing. May be repeated 2 times and up to 9 credit hours.

### **MENG 6760 - Poetry Writing**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Spring [Full Sem]**

In this course, students will study the art and craft of writing poetry. Along with writing their own original work, students will read a variety of contemporary texts and will critique their peers' writing. May be repeated 2 times and up to 9 credit hours.

### **MENG 6821 - Teaching Developmental Reading and Writing**

**Credits: (2)**

This course introduces first-time teachers to the theory and practice of teaching developmental reading and writing. Permission of instructor required to register.

### **MENG 6822 - Teaching College Writing**

**Credits: (2)**

This course introduces first-time teachers to the theory and practice of teaching college writing. Permission of instructor required to register.

### **MENG 6823 - Teaching Practicum**

**Credits: (1)**

This course supports teachers in their second semester of teaching college writing. Students will meet regularly to develop teaching strategies, enhance grading skills, resolve problems that have arisen in their classes, and plan strategies and procedures for classes they are teaching. Permission of instructor required to register.

### **MENG 6830 - Directed Readings**

**Credits: (1-3)**

This course allows students credit for individual study with a professor, usually for further study that grows out of course work. The student and professor agree to a written contract for study which must be approved by the program director. No more than 3 credit hours of directed readings may apply toward the MA degree unless approved by the program director. This course is designed to allow students to explore in depth and/or breadth, subject matter which goes beyond the established courses in the Master's Degree Program. May be repeated 3 times with a maximum of 9 credit hours.

### **MENG 6861 - Practicum in Secondary English Education**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course provides a broad, practical background in teaching young adult (YA) literature for MENG students seeking secondary school licensure. Selection, evaluation, curriculum planning, and assessment in teaching literature will receive primary emphasis. Issues concerning community values and censorship will also receive our attention. Prerequisite: MED 6050 Curriculum Design, Evaluation, Assessment (3) must be taken prior to MED 6120/6861. We strongly recommend that MENG 6110 Writing for Teachers (3) or MENG 6230 Wasatch Range Writing Project Summer Institutes (3) be taken prior to MENG 6120/6861. MENG 6120 and MENG 6861 must be taken concurrently.

### **MENG 6920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

In order to provide flexibility and to meet many different needs, a number of specific offerings are possible using this catalog number. When the number is used it will be accompanied by a brief and specific descriptive title. The specific title with the credit authorized for the particular offering will appear on the student transcript. May be repeated 5 times with a maximum of 6 credit hours.

### **MENG 6940 - Masters Project**

**Credits: (2-6)**

This course provides for the creation and execution of a project growing out of graduate study particularly as it applies to the workplace. Project credit may be taken in increments of 1-3 hours in any term. May be repeated twice up to 6 credits.

### **MENG 6950 - Creative Writing Thesis: Fiction, Nonfiction, Poetry**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The course is designed as a rigorous academic and professional mentorship for students who intend to produce a MA thesis in creative writing. The thesis will include a manuscript of original writing with a critical foreword, both of which require extensive research and substantial writing on the thesis topic. The manuscript can be a creative response to literary works or original creative poetry, fiction, and/or nonfiction. The critical introduction will situate the creative component within the literary, historical, and/or theoretical context(s) of the creative component. Minimum of 3 hours required, with a possible maximum of 6 hours with approval. Credit/No Credit grading. Prerequisite: MENG 6730 - Creative Writing Forms and Crafts (3), must complete at least two workshops (6 Credits), MENG 6740 - Creative Nonfiction Writing (3)\*, MENG 6750 - Fiction Writing (3)\*, MENG 6760 - Poetry Writing (3)\*. \*Repeated with different titles.

### **MENG 6960 - Thesis**

**Credits: (1-6)**

Thesis credit may be taken in increments of 1-3 hours in any term. The thesis is a capstone writing course for the Master's Degree Program. May be repeated 5 times with a maximum of 6 credit hours.

### **MENG 6990 - Extension of Thesis/Project**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course allows students to continue to work on their thesis/project. The course is graded credit/no credit and may be repeated up to two times.

### **MET 1000 - Introduction to Mechanical Engineering Technology and Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

Introductory course for students majoring in mechanical engineering technology. The role of mechanical engineering technology and its place in the occupational spectrum. The experimental and analytical tools used in mechanical engineering technology and fundamentals of mechanical design and problem solving. College algebra and trigonometry strongly recommended.

### **MET 1500 - Mechanical Design Engineering**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will focus on understanding the engineering design process within the MET discipline. Students will develop problem statements and use brainstorming techniques to generate design concepts. These design concepts are evaluated and implemented for possible solutions to bring a factious engineered product to market. Prerequisite: MET 1000, Math ACT score of 23 or above or MATH 1010 or MATH 1030 or MATH 1040 or MATH 1050 or MATH 1060 or MATH 1080.

### **MET 1890 - Cooperative Work Experience**

**Credits: (1-3)**

Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Prior consent of the department chair and the employer are required. Prerequisite: DET 1010, MATH 1080 and Permission of Instructor.

### **MET 2500 - Modern Engineering Technologies**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A survey of modern engineering technologies including, but not necessarily limited to, energy generation, nano systems, smart materials, robotics, lasers, transportation systems, and bioengineering. Prerequisite: MET 1500.

### **MET 2890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Prior consent of the department chair and the employer are required. Prerequisite: Credit or concurrent enrollment in MFET 2300.

### **MET 3050 - Dynamics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Fundamentals of force, mass and acceleration, work and energy, and impulse and momentum applied to particles and rigid bodies. Prerequisite: MATH 1210, PHYS 2210 and MFET 2300.

### **MET 3150 - Engineering Technology Materials**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Material properties, processing and selection of materials for technological applications. Design parameters for material selection of metals and nonmetals. Mechanical behavior and service failures of metallic alloys and other engineering materials at high and low temperatures. Lecture plus laboratory work in materials testing. Prerequisite: CHEM 1110 and MFET 2300 or MFET 2320.

### **MET 3300 - Computer Programming Applications of Mechanical Engineering Technology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Applications of computer programming and computer software to problems in mechanical engineering technology. Lecture plus computer-based laboratory work. Prerequisite: MFET 2300.

### **MET 3400 - Machine Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Application of engineering technology fundamentals to machine design. Techniques involved in designing and selecting individual machine parts. Prerequisite: MFET 2300.

### **MET 3500 - Mechanical Measurements and Instrumentation**

**Credits: (3)**

Principles of temperature, pressure, strain, flow, force, and vibration measurements. Techniques of computerized data acquisition and reduction. Students will learn how to specify instrumentation systems, take data and interpret the results. Lecture plus laboratory work in selected topics. Prerequisite: EET 1850 and MFET 2300.

### **MET 3700 - Testing and Failure Analysis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Mechanical testing of materials, fatigue, fracture, wear, corrosion, embrittlement, failure mechanisms and analysis, case studies of failures. Lecture plus laboratory work. Prerequisite: MET 3150 and MFET 2300.

### **MET 3890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Prior consent of the department chair and the employer are required. Prerequisite: Credit or concurrent enrollment in MET 3400.

### **MET 4200 - Mechanical Design with FEA**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Application of engineering technology fundamentals in mechanical design using Finite Element Analysis. Lecture plus computer-based laboratory work. Prerequisite: MET 3400 and MFET 2300.

### **MET 4300 - Heating, Ventilating & Air Conditioning**

**Credits: (3)**

Principles of heating, ventilating and air conditioning of buildings. Refrigeration systems, air and water distribution and solar energy. Indoor thermal environmental control. Prerequisite: Permission of instructor.

### **MET 4500 - Senior Project**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A mechanical engineering technology project will be selected for team participation. Projects will require planning, analysis, design, development, production, testing and documentation. Prerequisite: MET 4200; AAS or AS Degree.

### **MET 4510 - Senior Project**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

A mechanical engineering technology project will be selected for team participation. Projects will require planning, analysis, design, development, production, testing and documentation. Prerequisite: MET 4500.

### **MET 4650 - Thermal Science**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Fundamental principles of thermal science for mechanical engineering technology. Basic thermal science theory with an emphasis on technological applications and systems. Lecture plus laboratory work in selected thermal science topics. Prerequisite: MATH 1210, PHYS 2210 and CHEM 1110 or CHEM 1210.

### **MET 4800 - Individual Research in Mechanical Engineering Technology**

**Credits: (1-3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Special individual research and development projects in mechanical engineering technology. Credit and time determined by the student and the faculty project supervisor. Prerequisite: Permission of instructor.

### **MET 4830 - Directed Readings**

**Credits: (1-3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Directed individual readings in mechanical engineering technology. Topic selected in consultation with instructor. Prerequisite: Permission of instructor.

### **MET 4890 - Cooperative Work Experience**

**Credits: (1-3)**  
**Typically taught:**  
**Spring [Full Sem]**

Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Prior consent of the department chair and the employer are required. Prerequisite: MET 3400 and Permission of instructor.

### **MET 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-3)**  
Consult the semester class schedule for the current offering under this number. The specific title with the credit authorized for the particular offering will appear on the student transcript.

## **MET 4990 - Seminar in Mechanical Engineering Technology**

### **Credits: (1)**

Guest lectures from local industry, professionalism and engineering ethics, technology and society, and employment preparation. Prerequisite: MET 4500.

## **MFET 1000 - Manufacturing Engineering Technology Fundamentals**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This is an introductory course for students interested in majoring in Manufacturing Engineering Technology. Students will be exposed to Manufacturing Engineering Technology through several hands-on laboratory experiences that introduce them to concepts needed for future classes. Students will gain a clear understanding of degree requirements and possible career paths.

## **MFET 1150 - Pre-Professional Seminar in Manufacturing**

### **Credits: (1)**

#### **Typically taught:**

**Fall [Full Sem]**

An introductory course for students planning to major in Manufacturing Engineering Technology. An explanation of the Manufacturing Engineering Technology curriculum and its place in the occupational spectrum. Current job functions of manufacturing engineering technologists will be discussed by manufacturing engineers and technologists from industry.

## **MFET 1210 - Machining Principles Lecture/Lab I**

### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to machining processes through theory and practice including: setup and operation of the engine lathe & milling machine, machine and tool performance, inspection techniques, basic blueprint reading, and process planning. Students will utilize lab time to complete assignments as required. One lecture per week and two 3-hour labs per week are required.

## **MFET 1890 - Cooperative Work Experience**

### **Credits: (1-3)**

#### **Typically taught:**

**Fall [Full Sem]**

Open to all first year students in Manufacturing Engineering Technology. Department approval required before registration. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department.

## **MFET 2150 - Metal Forming, Casting and Welding**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to industrial metal forming, casting and welding processes, equipment selection, design criteria, shop procedures and terminology. Two one-hour lectures per week and one two-hour lab Co-Requisite: MFET 2150L. (MFET 2150L) is required.

## **MFET 2150L - Metal Forming, Casting & Welding Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Lab application of theories taught in MFET 2150 by use of student projects. Co-Requisite: MFET 2150.

## **MFET 2151 - Metal Forming Lecture/Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to industrial metal forming processes, equipment selection, design criteria, shop procedures and terminology. Prerequisite: Instructor Approval.

## **MFET 2152 - Metal Casting Lecture/Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to industrial metal casting processes, equipment selection, design criteria, shop procedures and terminology. Prerequisite: Instructor Approval.

## **MFET 2153 - Metal Welding Lecture/Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to industrial metal welding processes, equipment selection, design criteria, shop procedures and terminology. Prerequisite: Instructor Approval.

## **MFET 2300 - Statics and Strength of Materials**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Principles of forces, moments, resultants & static equilibrium of force systems, center of gravity, friction, and free body diagram analysis. Also concept of stress and strain, shear, bending moments, torsion, bending stresses in beams and stress resolution and shear. Five lectures per week. Prerequisite: PHYS 2010/L or PHYS 2210/L; MATH 1060 or MATH 1080 or MATH 1210.

### **MFET 2310 - Statistics for Engineering Technology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Topics include: Principles of forces, moments, resultants & static equilibrium of force systems, center of gravity, friction, and free body diagram analysis. Prerequisite: PS PHYS 2010/L or PS PHYS 2210/L and MATH 1210 or MATH 1110.

### **MFET 2320 - Mechanics of Materials**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Topics include: Principles of stress and strain, shear, bending moments, torsion, and bending stresses in beams. Prerequisite: MFET 2310.

### **MFET 2360 - Manufacturing Processes and Materials**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Survey of industrially important processes used to change material shape and condition for industrial use. Survey of industrially important materials and the principles of material behavior.

### **MFET 2410 - Quality Concepts and Statistical Applications**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This is the first course in a series of three designed to impart the Six Sigma body of knowledge. It integrates managerial, technological and statistical concepts across all functions of an organization to ensure that a product is fit for use. Provides a foundation in current quality paradigms and introduces students to software tools (MS Excel and Minitab) used to statistically analyze problems encountered in manufacturing firms. Three lectures per week. Prerequisite: MATH 1010 or higher level.

### **MFET 2440 - Computer Numeric Control (CNC) in Manufacturing**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed for those who have little or no experience with CNC programming, setup or operations. Manual programming, APT programming, and Mazatrol (a conversational programming language) will be taught. In addition, an introduction to CAD/CAM will also be discussed. A three-hour lab, once a week is required. Prerequisite: MATH 1080 or MATH 1050 and MATH 1060; MFET 1210. Co-Requisite: MFET 2440L. May be repeated 3 times up to 6 credit hours.

### **MFET 2440L - CNC in Manufacturing Lab**

**Credits: (1)**

Applications of the theory taught in MFET 2440. Introduction to the setup & operation of the CNC lathe and mill. One 3-hour lab per week. Co-Requisite: MFET 2440.

### **MFET 2500 - Process Automation I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the elements used in manufacturing automation and control technologies including: basic elements of an automated system, cost benefit analysis, programmable logic controllers, robotics (servo and non-servo), material handling devices and automated inspection technologies. One 50 minute lecture per week. Prerequisite: EET 1850. Co-Requisite: MFET 2510.

### **MFET 2510 - Process Automation I Lab**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students duplicate demonstration sequences of automation equipment and develop new routines in: Controlling servo and non-servo robots, computer-aided manufacturing systems, programmable logic controllers, and other devices used in process automation. Labs will include additional lectures. Prerequisite: EET 1850. Co-Requisite: MFET 2500.

### **MFET 2550 - Basics of Quality Engineering**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Approaches quality from the perspective of the production technician using applied statistics, total quality concepts, inspection techniques and methods and nonconforming material control. Addresses sampling principles used in production management as well as a review of industry accepted standards. (ASQC Series)

### **MFET 2610 - Quality Improvement Principles and Techniques**

**Credits: (2)**

This course assesses vital knowledge of quality tools and their uses by individuals, from non-traditional quality areas, who are involved in quality improvement projects. The course examines the rapid spread of quality principles and practices throughout organizations, and covers the essentials of quality management for individuals who manage quality programs, but who are not necessarily specialized in traditional quality areas. The course prepares students for the Certified Quality Improvement Associate examination administered by the American Society for Quality.

### **MFET 2670 - GMA, FCA and GTA Welding**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Theory and skills course covering Gas Metal Arc Welding, Flux Core Arc Welding, and Gas Tungsten Arc Welding. Prerequisite: MFET 2150/MFET 2150L or MFET 2153. Co-Requisite: MFET 2670L.

### **MFET 2670L - GMA, FCA and GTA Welding Lab**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

A "hands on" lab that reinforces the theory and skills course (MFET 2670) covering Gas Metal Arc Welding, Flux Core Arc Welding, and Gas Tungsten Arc Welding. Prerequisite: MFET 2150/MFET 2150L. Co-Requisite: MFET 2670.

### **MFET 2830 - Directed Readings in Manufacturing Engineering Technology**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

Individual research on topics requested by industry or which meet special needs of Manufacturing Engineering Technology students. Prerequisite: Departmental approval.

### **MFET 2850 - CNC/CAM for Plastics and Composites Lecture/Lab**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Traditional and nontraditional methods for machining organic-matrix and metal-matrix composites are reviewed. Traditional machining procedures are discussed together with the damage introduced into composites by these manipulations. Computer Numerical Control (CNC) codes and Computer Aided Manufacturing are covered, focusing on the production of plastic products and tooling. Machining concepts also including laser, water-jet, electrodischarge, electrochemical spark, and ultrasonic machining. Prerequisite: MFET 1210/L.

### **MFET 2860 - Plastics/Composites Materials & Properties**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Coverage of the most common commercial plastics including their additives, fillers, and fibers; includes common physical tests used to determine material characteristics; writing intensive. Prerequisite: CHEM 1110.

### **MFET 2870 - Design of Plastics/Composites Products**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Designing plastic parts utilizing CAD and CAE technologies for the design and for structural, dimensional, and process evaluation and optimization. A strong emphasis in design principles related to design of plastics products. Also analysis of functional requirements, structural properties, aesthetic qualities and cost relationships. The student will gain experience in product design and material evaluation. Prerequisite: DET 1160 and MFET 2860.

### **MFET 2890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

Open to all second year students in Manufacturing Engineering Technology. A continuation of MFET 1890.

### **MFET 2920 - Short Courses, Workshops, Institutes and Special Programs**

#### **Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: Departmental approval.

### **MFET 3010 - Tool Design**

#### **Credits: (3)**

Principles of workpiece control including: Geometric, dimensional, and mechanical control. Other topics include: process tolerance stacks, design of special tools and gauges, applications in the production of manufactured parts, tool drawings, specifications, and modular tooling. Three lectures per week. Prerequisite: MFET 1210; DET 1160.

### **MFET 3060 - Codes, Weld Inspection, and Quality Assurance**

#### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of ASME and AWS codes as relating to procedure qualification and welder qualification for fabrication of pressure vessels and structures, and how codes relate to quality assurance and ISO 9000. Prerequisite: MFET 2150/MFET 2150L or MFET 2153.

### **MFET 3310 - Material Selection and Heat Treat**

#### **Credits: (2)**

Terminology, concepts and principles involved in the selection, specification and processing of engineering materials so they meet design criteria including load, life, and appearance. Testing methods to determine those properties and characteristics. Manual and computer assessing of material data. Two lectures per week. Prerequisite: MFET 1210/L, MFET 2300, CHEM 1110. Co-Requisite: MFET 3310L.

### **MFET 3310L - Material Selection and Heat treat Lab**

#### **Credits: (1)**

Application of theory taught in MFET 3310. One 2-hour lab per week. Co-Requisite: MFET 3310.

### **MFET 3320 - Machine Design**

#### **Credits: (2)**

Application of engineering fundamentals to the design of individual machine components such as shafts, couplings, springs, bearings, gears, fasteners, clutches, and breaks. Students will be required to complete a design project emphasizing manufacturing equipment. Two lectures per week. Prerequisite: MFET 2300.

### **MFET 3340 - Applied Fluid Power**

#### **Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Principles of fluid mechanics and component operation as they apply to the design of hydraulic and pneumatic systems. Computer programs may be used to analyze and design systems. Two lectures per week. Prerequisite: MFET 2300 or MFET 3320 or ENGR 2010 and ENGR 2140; PHYS 2010/L or PHYS 2210/L. Co-Requisite: MFET 3340L.

### **MFET 3340L - Applied Fluid Power Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Application of the theory taught in MFET 3340. One 2-hr lab per week. Co-Requisite: MFET 3340.

### **MFET 3350 - Plastic and Composite Manufacturing**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Design and processing of plastic and composite materials for industrial applications. Two lectures per week. Prerequisite: CHEM 1110 or CHEM 1210. Co-Requisite: MFET 3350L.

### **MFET 3350L - Plastic and Composite Manufacturing Lab**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Application of the theory taught in MFET 3350. Two 2-hr labs per week. Prerequisite/Co-requisite: MFET 3350.

### **MFET 3460 - Engineering Design using Solid Modeling**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

An advanced computer-aided design course using state-of-the-art solid modeling CAD/CAM software. Topics include: 3D parametric solid modeling, applications associativity, design-by-feature, assembly modeling, injection mold design, flat pattern development, design analysis using FEA, realistic rendering, and detailing. Prerequisite: DET 1010. Co-Requisite: MFET 3460L.

### **MFET 3460L - Engineering Design using Solid Modeling Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Lab assignments will include: Fundamentals of 3D parametric solid modeling, Extrude & Revolve Features, Sweep & Loft Features, Assembly Modeling, Injection Mold Design, Flat Pattern Development, Design Analysis using FEA, and others. Prerequisite: DET 1010 and WEB 1700. Co-Requisite: MFET 3460.

### **MFET 3510 - Basics of Supply Chain Management**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Introductory course for production and inventory management personnel which provides basic definitions and concepts for planning and controlling flow of materials into, through, and out of an organization. Explains fundamental relationships of supply chain from suppliers to customers. Addresses manufacturing systems, forecasting, master

planning, material requirements planning, capacity management, production activity control, purchasing, inventory management, distribution, quality management, and Just-in-Time manufacturing. (APICS Series).

### **MFET 3550 - Manufacturing Supervision**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem]**

The application of supervision skills. Students will gain an understanding of; motivation of subordinates, personal leadership theories, problem-solving and decision-making techniques, organizational communication, employee selection, evaluation and training process, and organizational structures. Topics will include; the American Disabilities Act, OSHA and environmental issues, Equal opportunity Employment, and Affirmative Action issues. Three lectures per week. Prerequisite: MFET 2410 (or MATH 1040).

### **MFET 3560 - Advanced Quality Engineering**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Addresses the application of advanced quality techniques by personnel in positions of responsibility such as manufacturing leads and supervisors. Uses statistics, metrology, inspection methods, quality management concepts, and sampling principles to address process decisions involving both overall quality and costs. (ASQC Series). Prerequisite: MFET 2550.

### **MFET 3570 - Manufacturing Quality Auditing**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Utilizes auditing principles and quality management tools and techniques to prepare an individual to plan and conduct, or prepare an organization, for a quality audit. Links directly to process associated with implementation of ISO 9000 standards. Two one-hour lectures per week. (ASQC Series). Prerequisite: MFET 2410 or equivalent.

### **MFET 3580 - Certified Mechanical Inspector**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Provides the student with terminology, concepts and tools needed to be professionally competent in advanced quality management. The course will also be helpful to those preparing to take the ASQC CMI Certification Exam. (ASQC Series).

### **MFET 3610 - Machining Processes Lecture/Lab II**

**Credits: (3)**

The manufacture and assembly of precision and interchangeable parts using conventional lathes, mills, drills, and grinders. Introduction to geometric dimensioning & tolerancing (GD&T), and advanced inspection techniques. Students will utilize lab time to complete assignments as required. One lecture per week and two 3-hour labs per week are required. Prerequisite: MFET 1210.

### **MFET 3620 - Senior Capstone Project Planning**

**Credits: (.5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course must be taken the semester prior to beginning the MFET senior project sequence of classes (MFET 4610, MFET4610L and MFET 4620L). Capstone requirements will be discussed. Capstone projects will be selected and teams formed with faculty input. Prerequisite: Department Approval.

### **MFET 3630 - Fusion Joining and Brazing Processes**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Study of SAW, ESW, GMAW, EG, RW, PAW, PAC, Electron Beam, Laser, Friction, Brazing, and other welding processes. Prerequisite: MFET 2670/MFET 2670L. Co-Requisite: MFET 3630L.

### **MFET 3630L - Fusion Joining and Brazing Processes**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

A "hands-on" lab that reinforces the concepts taught in MFET 3630 of SAW, ESW, GMAW, EG, RW, PAW, PAC, Electron Beam, Laser, Friction, Brazing, and other welding processes. Prerequisite: MFET 2670/MFET 2670L. Co-Requisite: MFET 3630.

### **MFET 3650 - Quality Management Institute**

**Credits: (3)**

This course consists of application process control and problem solving techniques including statistical process control (SPC), measurement systems analysis, and process capability analysis. Students will apply cause-and-effect diagrams, check sheets, sampling, line and bar charts, Pareto charts, scatter diagrams, variation, probability plots, x-R charts, gate repeatability and reproducibility (gage R & R) on course projects. Curriculum will include practical application exercises. Prerequisite: MFET 2410, MATH 1010 Intermediate Algebra or equivalent, and Basic Statistics course (MATH 1040) or equivalent.

### **MFET 3710 - Computer Aided Manufacturing and Rapid Prototyping**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course will introduce and explain concepts behind Computer-Automated Manufacturing (CAM). It will define elements, terms, and concepts involved with CAM. Elements of rapid prototyping will also be covered from conceptual design in solids to production of tooling and parts. This course is designed for those who have the basic understanding of the setup and operation of CNC machine tools and programming. Software will be used to perform the CAM operations, such as part generation and post processing. Prerequisite: MFET 2440/MFET 2440L, DET 1010, DET 1160 or MFET 3460. Co-Requisite: MFET 3710L.

## **MFET 3710L - Computer Aided Manufacturing and Rapid Prototyping Lab**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

A "hands-on" lab that reinforces the concepts taught in MFET 3710. Students will learn how to transfer CNC part programs from a PC to the CNC machine controller. Testing, editing and running their part programs on the CNC machines will also be covered. May be repeated twice up to 3 credit hours.

## **MFET 3750 - Welding Metallurgy I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Metallurgical principles applied to welding and weldability of ferrous metals. Prerequisite: MFET 2150/MFET 2150L or MFET 2153, CHEM 1110 or CHEM 1210. Co-Requisite: MFET 3750L.

## **MFET 3750L - Welding Metallurgy I Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

A "hands-on" lab that reinforces the concepts taught in MFET 3750 of metallurgical principles applied to welding and weldability of ferrous metals. Prerequisite: MFET 2150/MFET 2150L, CHEM 1110. Co-Requisite: MFET 3750.

## **MFET 3760 - Welding Metallurgy II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Metallurgical principles applied to welding and weldability of nonferrous metals. Prerequisite: MFET 3750/MFET 3750L. Co-Requisite: MFET 3760L.

## **MFET 3760L - Welding Metallurgy II Lab**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

A "hands-on" lab that reinforces the concepts taught in MFET 3760 of metallurgical principles applied to welding and weldability of nonferrous metals. Prerequisite: MFET 3750/MFET 3750L. Co-Requisite: MFET 3760.

## **MFET 3820 - Nondestructive Testing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Fundamental concepts relating to liquid penetrant, magnetic particle, ultrasonics, and radiography and other NDT processes. Prerequisite: MATH 1210 and PHYS 2010 or PHYS 2210.

### **MFET 3830 - Reinforced Plastics/Advanced Composite Lecture/Lab**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Polymer and reinforcement systems; material testing; mold design and development; laboratory involvement in reinforced plastics production processes. Prerequisite: MFET 3350/MFET 3350L and MFET 2860.

### **MFET 3870 - Mold Design and Process Strategies Lecture/Lab**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Overview of mold design and the development of strategies and techniques integrating CAD and CAE technologies for optimizing part quality, moldability, and productivity. Additional study on design and construction of various types of production molds that are used for processing plastics in final shape. Product design in relationship to molding techniques and various techniques and materials used to construct the molds are the major units of study. Prerequisite: MFET 2860.

### **MFET 3890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to all third year students in Manufacturing Engineering Technology. A continuation of MFET 1890.

### **MFET 4050 - Detailed Scheduling and Planning I**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Techniques and practices of detailed scheduling and planning of inventory management including order review methodologies, policies and functions of inventory. Covers lot sizing, safety stock techniques, demand, and Just-in-Time as they relate to detailed scheduling and planning. Prerequisite: MFET 3510 or equivalent. (APICS series).

### **MFET 4090 - Welding Power Sources**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Study of power sources used to generate and control voltage and amperage for welding. Two lectures per week.

Prerequisite: EET 1850.

### **MFET 4150 - Execution and Control of Operations**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Focuses on prioritizing and sequencing work, executing work plans, implementing controls, reporting activity results, and evaluating and providing feedback on performance. Eval. Prerequisite: MFET 3510 or equivalent. (APICS Series).

### **MFET 4200 - Manufacturing Processes**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Manufacturing processes define the methods that companies use in designing, producing, and delivering goods and services required by customers. The manufacturing processes provide the execution component to the other activities of the integrated manufacturing system. Beginning with customer requirements and needs, they design, build, operate, upgrade, and maintain a manufacturing process which is most supportive of and consistent with those needs and requirements. To achieve these objectives, manufacturing processes draw on three different but very interrelated subsystems: industrial facilities management, process design and development, and manufacturing. (APICS Series)

### **MFET 4210 - Cost Estimating and Engineering Economics**

**Credits: (2)**

Production cost structure, operation costing, break-even analysis, make buy decision, and capital equipment justification. Computer aids are used to analyze cost data. Three lectures per week. Prerequisite: MATH 1080; WEB 1700. Co-Requisite: MFET 4610.

### **MFET 4250 - Detailed Scheduling and Planning**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Detailed explanation of inventory management including order review methodologies, policies and functions of inventory. Covers material requirements planning (MRP) and other material planning and capacity requirements planning techniques. Includes concepts, principles, interfaces, desired characteristics, applications, and supplier relations. Prerequisite: MFET 3510 or equivalent. (APICS Series)

### **MFET 4300 - Design of Experiments**

**Credits: (2)**

A step-by-step description of procedures used to organize, conduct and evaluate industrial experiments. Emphasizes the usefulness of results and the decision criteria for choosing the proper design. Prerequisite: MFET 2410

### **MFET 4310 - Corrosion and Corrosion Control**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Analysis of corrosion mechanisms for ferrous metals, nonferrous metals, and nonmetallic materials, as well as the control of corrosion. Prerequisite: CHEM 1110 and MATH 1080.

### **MFET 4315 - Welding Robotics**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to introduce students to welding robot programming and applications. Students will demonstrate

skills learned in welding robot programming in applied labs. They will learn parameters, terms and nomenclature and obtain knowledge of applications and configurations in industry settings. Prerequisite: MFET 2670, MFET 2670L.

### **MFET 4350 - Principles of Lean Manufacturing**

**Credits: (2)**

**Typically taught:**

**Spring [Online]**

This course introduces students to lean manufacturing and waste reduction concepts such as work standardization, visual manufacturing & workplace organization, value stream mapping, setup reduction & batch size reduction, quality at the source, point of use storage, total productive maintenance, pull systems/kanbans, tack time calculation and cellular/synchronous manufacturing design concepts. A combination of lectures, videos and hands on exercise will be used.

### **MFET 4550 - Advanced Quality Principles**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Provides advanced study in all aspects of the application of quality principles to a production environment. The course will involve case study and application of quality theory. Students should have a broad knowledge of organizational structure and planning, quality techniques, customer satisfaction and focus, project management, and human resource management. Cooperative experience in a business/industry is recommended. (ASQC Series) Prerequisite: MFET 2410 or equivalent.

### **MFET 4580 - Process Automation II & Robotics**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full sem]**

An advanced study of the elements used in manufacturing automation and control technologies including: the use of basic elements of an automated system, cost benefit analysis, programmable logic controllers, robotics (servo and non-servo), material handling devices and automated inspection technologies. One 1-hour lecture per week. Prerequisite: MFET 2500 and MFET 2510. Co-Requisite: MFET 4585.

### **MFET 4585 - Process Automation II Lab**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students work in teams to demonstration proficiency programming individual automated manufacturing stations using Allen Bradley PLCs (Cognex Vision Systems, RF Systems, bar coding, pick and place feeding station, gauging station, part orientation processing station, sorting-buffering station, servo robotic assembly station-Fanuc, torque assembly station, inventory storage station, electro-hydraulic station). Students then work as a class to integrate an entire manufacturing process using all of the stations for a small part. Labs will include additional lectures. Prerequisite: MFET 2500 and MFET 2510. Co-Requisite: MFET 4580.

## **MFET 4610 - Senior Project Planning & Estimating**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This is designed as a capstone course for students and is to be taken in the senior year of their program. The course will teach students fundamental principles in Project Management, Cost Estimating, and Engineering Economics that will be necessary to successfully complete their Senior Project experience. Students must apply and gain departmental approval before entering Senior Project. Approval is based on an interview with department faculty and fulfilling the prerequisites listed on the "Senior Project Requirements Sheet" available from the department secretary. All students approved for Senior project will register for this course regardless of individual project group assignments. Prerequisite: AAS or AS Degree. Co-Requisite: MFET 4610L for manufacturing students or DET 4600 for design graphics students.

## **MFET 4610L - Senior Project Lab**

**Credits: (2-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Must apply for senior project before March 1 of the previous year. Must have department approval. Approval is based on an interview with department faculty and fulfilling the prerequisites listed on the "Senior Project Requirements Sheet" available from the department secretary. Time: as required to complete the project. Two consecutive semesters. Co-Requisite: MFET 4610 (with MFET 4610L only).

## **MFET 4620L - Senior Project Lab**

**Credits: (2-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Must apply for senior project before March 1 of the previous year. Must have department approval. Approval is based on an interview with department faculty and fulfilling the prerequisites listed on the "Senior Project Requirements Sheet" available from the department secretary. Time: as required to complete the project. Two consecutive semesters.

## **MFET 4650 - Software Quality Engineering Principles**

**Credits: (2)**

This course prepares the student to incorporate quality development and implementation as a software design team member. The course provides instruction on concepts, principles and techniques to develop a comprehensive understanding of software inspection, testing, verification, and validation. Participants will learn to implement software development and maintenance processes and methods. This course also prepares the student for the Certified Systems Quality Engineer examination administered through American Society for Quality.

## **MFET 4670 - Reliability Engineering Principles**

**Credits: (2)**

This course prepares the student to work as a design team member to incorporate reliability considerations into a basic design. Course provides information on application of proven techniques to achieve quality product results. This course also prepares the student for the Certified Reliability Engineer examination administered through American Society for Quality.

### **MFET 4750 - Master Planning of Resources**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

Explore processes used to develop sales and operations plans, forecast internal and external demand, create the master schedule consistent with business policies, objectives and resource constraints. (APICS series). Prerequisite: MFET 3510.

### **MFET 4770 - Strategic Management of Resources**

**Credits: (2)**

**Typically taught:**

**Evening classes only.**

The relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain related functions. Addressing aligning resources with strategic plan, integrating operating processes to support the strategic plan, and implementing change. Prerequisite: MFET 3510 and be familiar with concepts addressed in all other APICS courses. (APICS series).

### **MFET 4800 - Individual Research in Manufacturing Technology**

**Credits: (1-3)**

Special individual research and development projects in Manufacturing and Engineering Technology. Credit and time determined by the student and the faculty project supervisor. Prerequisite: Permission of instructor.

### **MFET 4830 - Directed Readings in Manufacturing Engineering Technology**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Must have department approval.

### **MFET 4850 - Integration of Automated Systems**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An Advanced Automation course designed to give the student both theory and practical application in control and integration issues dealing with automated equipment. Selected topics include motor controllers, PID's, data collection and transfer devices, vision systems, and systems integration issues. Prerequisite: MFET 4580/MFET 4585.

### **MFET 4890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to all fourth year students in Manufacturing Engineering Technology. A continuation of MFET 1890.

## **MFET 4920 - Short Courses, Workshops, Institutes and Special Programs**

### **Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. Juniors and Seniors only. Faculty approval required.

## **MFET 4995 - Certified Manufacturing Technologist (CMfgT) Exam Review**

### **Credits: (1)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to provide a structured review for the student to take the Certified Manufacturing Technologist (CMfgT) Exam.

## **MFET 5100G - Introduction to Engineering Design (IED)**

### **Credits: (5)**

IED provides students with opportunities to be creative and to apply their decision-making and problem-solving skills to design problems. Students use powerful computer hardware and software (Inventor) to develop 3-D models or solid renderings of objects. Using a Computer Aided Design System, students learn the product design process through creating, analyzing, rendering and producing a model. The course meets for a total of 75 hours over a two-week period and focuses on the content as well as teaching methods appropriate for the course. This course is designed specifically and only for current high school teachers who have been assigned by their schools and districts to teach the Project Lead the Way courses in their respective schools. These courses carry graduate credit for those teachers who would use them as part of a master's degree program or for recertification.

## **MFET 5300G - Principles of Engineering (POE)**

### **Credits: (5)**

POE is designed to help students understand the field and the career possibilities of engineering and engineering technology. Students work on the problem-solving skills that are used at the college level and in the workplace, and they explore engineering systems and manufacturing processes. Students learn how engineers address concerns about the social and political consequences of technological change. The course meets for a total of 75 hours over a two-week period and focuses on the content as well as teaching methods appropriate for the course. This course is designed specifically and only for current high school teachers who have been assigned by their schools and districts to teach the Project Lead the Way courses in their respective schools. These courses carry graduate credit for those teachers who would use them as part of a master's degree program or for recertification.

## **MFET 5400G - Computer Integrated Manufacturing (CIM)**

### **Credits: (5)**

CIM is a course that applies principles of prototyping, robotics, and automation. It builds on the solid modeling skills developed in Introduction to Engineering Design. Students use computer-controlled equipment to solve problems by constructing models of their three-dimensional designs. Students are also introduced to the fundamentals of robotics and to how this equipment is used in an automated environment. Students evaluate their design solutions using various techniques and modifications before they produce the prototype. The course meets for a total of 75 hours over a two-week period and focuses on the content as well as teaching methods appropriate for the course. This course is designed specifically and only for current high school teachers who have been assigned by their schools and districts to teach the Project Lead the Way courses in their respective schools. These courses carry graduate credit for those teachers who would use them as part of a master's degree program or for recertification.

## **MFET 5500G - Engineering Design and Development (EDD)**

### **Credits: (5)**

In this course, students work on a team with one or two others to design and construct the solution to an engineering problem. The problems involve a wide range of engineering applications (e.g., a school robo-mascot, automated solar water heater, remote control hover craft). The course serves as a capstone course where students apply the principles they developed in previous courses. A journal is part of each student's portfolio. Each team is responsible for delivering progress reports and making final presentations to an outside review panel. The course meets for a total of 75 hours over a two-week period and focuses on the content as well as teaching methods appropriate for the course. This course is designed specifically and only for current high school teachers who have been assigned by their schools and districts to teach the Project Lead the Way courses in their respective schools. These courses carry graduate credit for those teachers who would use them as part of a master's degree program or for recertification.

## **MFET 6050 - Gateway to Technology**

### **Credits: (1-4)**

**Typically taught:**

**Summer [2nd Blk]**

Gateway to Technology is a course designed specifically and only for current high school teachers who have been assigned by districts to teach the related Project Lead the Way course in their respective schools. Gateway to Technology introduces the Project Lead the Way series of courses covering the principles of engineering and technology. The course promotes an understanding of the field of technology and covers the continuous evolution of technology, the positive and negative impact of technology on our society, and career opportunities in technology. The various modules in this course will utilize a train the trainer approach. Teachers will learn technical content, teaching methodologies used to present the course, and the Project Lead the Way learning management system (Canvas). Credit hours will be based on the number of modules taken (two credits for each one-week module). May be repeated 4 times and up to 8 credit hours.

## **MGMT 2400 - Project Management**

### **Credits: (3)**

**Typically taught:**

**Not currently being offered**

Strategies and techniques for managing a project from inception to completion to meet all schedule, cost, and technical objectives. Knowledge and skills learned in this course prepare students to perform successfully the role of a project manager in any construction, engineering, health, information technology, business, or research and development project, although emphasis will be on project management within the Department of Defense. Topics include organizational structures, project planning and evaluation, cost estimating, quantitative methods in schedule and cost management, project information systems, communication skills, and conflict resolution.

## **MGMT 3010 - Organizational Behavior and Management**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Focus of the course is on individual and group behavior in an organizational setting and on decision processes. Examples of topics included are motivation, group behavior, organizational design and development, organizational culture, and decision making theory.

### **MGMT 3200 - Managerial Communications**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Study of corporate communication methods to improve communication in organizations. Written and oral reports tailored to achieve strategic goals contingent upon business situations. Prerequisite: ENGL 1010, ENGL 2010.

### **MGMT 3300 - Human Resource Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Study of principles and methods in managing specific aspects of human resources, either as an operating manager or as a human resource specialist. Topics include: legal constraints in managing human resources, strategic planning of human resources, recruitment, selection, orientation, performance evaluation, employee/ labor relations and communication programs, safety and health, and work scheduling. The computer will be used for analysis in certain areas studied. Prerequisite: BSAD 2899; MGMT 3010.

### **MGMT 3350 - Employment and Labor Law**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course will focus on legal and ethical issues most closely associated with Human Resource Management. Title VII of the Civil Rights Act of 1964, ADEA, and ADA form the heart of this course. Other topics include FLSA, OSHA, ERISA, sexual harassment, drug testing and privacy. Labor law issues include preventing unionization, and dealing effectively with a union. Prerequisite: BSAD 2899; MGMT 3300.

### **MGMT 3400 - International Business**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An exploration of the role of multi-national corporations in worldwide economic development and an analysis of the management processes of such corporations. Prerequisite: BSAD 2899.

### **MGMT 3450 - Business Studies Abroad-International Management**

**Credits: (3)**

An exploration of the internationalization of economies and the analysis of international decision-making. Focus is internationalization as the central challenge for management. This course is taught at Fachhochschule Hof, Germany during each fall semester. Students enrolled in this course have to participate in the Study Abroad Program (Contact: Doris Geide-Stevenson, ext. 7634, dgsteven@ weber.edu). Prerequisite: BSAD 2899, MGMT 3010. May be repeated 3 times for credit.

### **MGMT 3550 - The Cultural Environment of International Business**

**Credits: (3)**

This course considers issues in communication, negotiation and culture in international business relations. Topics

include the role of language and nonverbal communication, contrasting cultural values and using sources of information on the culture of international business. Prerequisite: BSAD 2899.

### **MGMT 4300 - Leadership and Group Effectiveness**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

This course is about getting things done through the use of influence. The course emphasizes influencing others and influencing a situation. Power and other forms of influence are studied in-depth. Topics also include an examination of group behavior in work setting and the management of work groups. All stages of group development are studied from the forming stage of a group to its development as a high performance, self managed team. Prerequisite: MGMT 3010 or COMM 3550 or HAS 3260.

### **MGMT 4310 - Compensation and Benefits**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is intended to provide the student with a basic working knowledge of compensation and benefits as an important part of the broader Human Resources field. The topics to be covered include: benefits management, job analysis, job evaluation, performance appraisal and recognition, and different approaches to employee compensation. The course is also designed to assist the student in their preparation for professional certification examinations in related areas. Prerequisite: BSAD 2899, MGMT 3300.

### **MGMT 4320 - Staffing Organizations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Designed to provide students with the knowledge and skills necessary to effectively analyze and project organizational staffing requirements, recruit and select candidates, and effectively place employees in today's complex organizations. Includes treatment of legal aspects of staffing process. Prerequisite: BSAD 2899, MGMT 3300.

### **MGMT 4350 - Training**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to provide prospective human resource managers with an understanding of the applicable theory and with the "tools" required to effectively manage the training function within an organization. Prerequisite: BSAD 2899, MGMT 3300.

### **MGMT 4400 - Advanced Organizational Behavior**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

An in-depth study of leadership and organizational behavior. Focus is on the structural and behavioral variables that are most significant for organizational effectiveness. Both theory and application are emphasized. Prerequisite: MGMT 3010 or COMM 3550 or HAS 3260.

### **MGMT 4410 - Leadership Through Character**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will provide students access to the concepts and skills to possess the competencies, commitment, emotional intelligence and character to be effective leaders. While competencies and commitment are important, character plays a critical role in leadership behavior and will be the focus of this course. By character it is meant the combination of traits, values and virtues that are recognized as admired and appreciated in leaders, providing them with the expertise to exercise quality of judgment and decision-making. For example, in the financial crisis of 2008 - 2009 some corporate leaders' needs for instant gratification triumphed over temperance; and others who knew ethical risks were taken remained silent because they did not have the skills or courage to speak up. A component of this course is to explore the fundamentals of corporate governance, emphasizing the leader's responsibility to make ethical, socially responsible, legal, and wise financial decisions on behalf of the organization. We will explore a number of corporate examples that demonstrate positive and negative character development. Effective corporate governance requires leaders know the purpose or values of the organization, design the space of the organization to achieve its purpose, organize the flow of power within the organization, and manage the relationships of the key stakeholders in the organization: owners, directors, managers, employees, customers, suppliers, regulators, and the wider community of which the organization is a member. The skills and knowledge acquired in this course are transferable to other areas of life including one's community service and interaction with family and friends. Prerequisite: MGMT 3010, or HAS 3260, or COMM 3550.

### **MGMT 4420 - Critical Thinking for Leaders**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is to apply a well-rounded and experiential learning process to developing critical thinking skills for leaders. Course topics are broad and include the major branches of philosophy, the nature of thinking and knowledge, the formation of beliefs, perceptual biases, cognitive biases, the nature of memory, the structure and purpose of argument, logic and logical fallacies, the practice of street epistemology, probabilities and statistics, culture and mass delusions, the philosophy of science, the scientific method, skepticism, and pseudoscience. Application of critical thinking skills will target the human side of business in areas most relevant to leaders - leading, decision making, influence, conflict management and the development of conceptual skills and human capital. Prerequisite: MGMT 3010, or HAS 3260, or COMM 3550.

### **MGMT 4650 - Negotiations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course provides an opportunity for management students to obtain an understanding of negotiation concepts and to develop management negotiation skills. Because the objective is skill building, the course emphasizes hands-on experience through negotiation simulations. These role playing exercises are designed to simulate the situations and issues commonly faced in management/organizational settings (e.g., labor negotiations, contract provisions, vendor arrangements). Prerequisite: BSAD 2899.

### **MGMT 4800 - Independent Research**

**Credits: (1-3)**

Directed research and study on an individual basis. Prerequisite: BSAD 2899; Senior Standing; Written Instructor Approval. May be repeated until a total of 4 hours credit is accumulated.

### **MGMT 4810 - Experimental Courses**

**Credits: (1-3)**

Experimental or one-time courses designed to fill a need in the community or investigate interesting and unusual topics. May be repeated 5 times with a maximum of 6 credit hours with different topics.

### **MGMT 4850 - Management Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore management theory and practice in countries other than the U.S. Students will study international business as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. May be repeated once up to 6 credits.

### **MGMT 4860 - Management Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A structured professional-level field experience. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through the Management program courses. Students receiving credit in this course cannot also receive credit in MGMT 4865. Prerequisite: BSAD 2899; Instructor approval.

### **MGMT 4865 - Human Resource Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A structured professional-level field experience. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through the Human Resource or Management program. Students receiving credit in this course cannot receive credit for MGMT 4860. Prerequisite: BSAD 2899; Instructor approval.

## **MHA 6000 - Health Systems & the Healthcare Economy**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

In-depth analysis and synthesis of all aspects of the health care delivery system emphasizing improvement of health care delivery and access. Examines the complex organizational dynamics and structures that predicate the interaction among major components of the U. S. health care system, including service provider settings in which care is provided. The course surveys the funding systems and regulatory structures for financing healthcare delivery and resource management in health services organizations. Current reform debates will be challenged.

## **MHA 6100 - Leading & Managing People in Health Care**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

The course content emphasizes visionary leadership and management of diverse healthcare professionals in complex organizational structures. Individual leadership talents in handling various organizational challenges, such as leading organization change, building strong culture, developing effective teams, resolving conflicts, implementing effective motivational systems, and nurturing a learning organization are investigated.

## **MHA 6140 - Long-term Care Administration**

**Credits: (3)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [1st Blk]**

Seminar analysis of effect of chronic conditions and aging on delivery of health services, nursing homes and alternatives, mental health facilities and agencies, and rehabilitation facilities and services. Field trips and individual research projects.

## **MHA 6160 - Medical Group Management**

**Credits: (3)**

**Typically taught:**

**Fall [2nd Blk]**

Theory and principles of practice management. Emphasis on the fundamentals of organizing, staffing, and controlling a physician practice. Financial applications and resource consumption.

## **MHA 6180 - Health Care Entrepreneurship**

**Credits: (3)**

**Typically taught:**

**Summer [2nd Blk]**

Develops an understanding of entrepreneurship, its importance for a health care organization and the health economy, and the challenges associated with promoting entrepreneurship within healthcare organizations.

## **MHA 6200 - Health Behavior and Managerial Epidemiology**

**Credits: (3)**

**Typically taught:**

**Fall [2nd Blk]**

The course addresses the integration of epidemiology into strategic planning and managerial decision-making in health services organizations. Epidemiological principles and tools of investigation from clinical and managerial perspectives are addressed. Course work includes environmental analysis of health behaviors and lifestyle that impact demand on health care delivery systems. The student will evaluate models for integration of health services, preventive programs, demand management, and policy issues affecting continuity of care. Prerequisite: MHA 6000 (may be taken concurrently) or Instructor Approval.

## **MHA 6240 - Human Resources Management in Healthcare**

**Credits: (3)**

**Typically taught:**

**Fall [2nd Blk]**

Human resources management in healthcare organizations including recruitment and selection of employees, benefits and compensation management, privileging and credentialing of health professionals, performance evaluation, staffing plans, labor relations and labor law relevant to health care organizations.

## **MHA 6249 - Accounting and Finance Principles for Healthcare Managers**

**Credits: (3)**

**Typically taught:**

**Spring [1st Blk]**

The first course in a two-course sequence addressing the accounting and finance knowledge and skills required of successful healthcare managers. It emphasizes the understanding of accounting and finance functions, use and interpretation of documents, reports, and statements, and the ability to work with the accounting and finance professionals in one's organization. Prerequisite/Co-requisite: MHA 6000.

## **MHA 6250 - Health Care Finance**

**Credits: (3)**

**Typically taught:**

**Spring [2nd Blk; Full Sem Online]**

Application of financial management techniques to decision making for health care providers. Financial management functions and organizations, financial statement analysis, working capital management, present value analysis, capital budgeting, cost of capital, variance analysis, financing techniques, and financial analysis case studies. Prerequisite: MHA 6000 and MHA 6249 (6249 may be taken concurrently).

## **MHA 6300 - Quality Improvement and Risk Management in Health Services Organizations**

**Credits: (3)**

**Typically taught:**

**Spring [1st Blk]**

A study of the effects of sophisticated quality and health outcome measures as used by individuals, employers and insurers to compare the results of various providers. The course will cover the forces of the smarter external customers and internal pressures to justify costs, continuous quality improvement, risk management, and changes demanding creative health care marketing techniques. Course content will include JCAHO and NCQA accreditation standards and

processes, Life safety and fire code requirements, and handling of biohazards such as blood borne pathogens.  
Prerequisite: MHA 6000 or Instructor Approval.

### **MHA 6310 - Managed Care vs. Managed Health**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Examination of factors that influence future direction of managed care. Changing relationships among major stakeholders. Broad areas of discussion including market dynamics, product characteristics, reimbursement methodologies, contracting issues, management information systems, government initiatives, legal and ethical issues, demand management strategies, and future trends.

### **MHA 6320 - Health Policy and Economics**

**Credits: (3)**

**Typically taught:**

**Fall [2nd Blk]**

Economic analysis applied to health services sector; concept of efficiency applied to production and distribution of health services, health insurance, government programs, health care personnel, and health services organizations; current public policy issues; emphasis on student application of economic principles to health care issues.

### **MHA 6350 - Decision Making for Health Care Leaders**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

The exploration and application of both quantitative and qualitative data analysis in healthcare organizations. How top level healthcare leaders use the myriad data that comes across their desks to work toward, and to achieve, their organization's mission.

### **MHA 6360 - Comparative International Health Systems**

**Credits: (3)**

**Typically taught:**

**Spring [2nd Blk]**

Analysis of key attributes of health care policy in selected countries and comparisons with the US health care system. This course includes an international field trip and appropriate travel expenses will be required of the students. Please check with the course instructor for more details.

### **MHA 6370 - Executive Leadership Seminars in Healthcare**

**Credits: (3)**

Via a series of in-depth seminars, dialogues, interactions, and/or lectures with top level clinical leaders and healthcare executives, this course will explore complex and timely healthcare topics and issues of the day from the perspective of successful leaders in the healthcare industry, exploring and analyzing their implementation and application of management and leadership theory and practice as put into effect in a variety of healthcare settings and facilities.

### **MHA 6380 - Patient Services Staff Management**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

The course addresses and analyzes the roles and responsibilities of clinical administrators. Strategies and methodologies for leading and managing clinical professionals are discussed. The interface and communication challenges between clinical managers and administrative services managers will be addressed.

### **MHA 6400 - Strategic Health Planning and Marketing**

**Credits: (3)**

**Typically taught:**

**Spring [2nd Blk]**

Various planning approaches, styles and theories are considered from a corporate decision-making perspective within the unique governance structures of health service organizations. Issues covered include strategic planning and resource allocation within integrated health systems. Environmental analysis explores national health care delivery policy, unique financing structures such as third party payment systems, and open vs. regulated markets and development of comprehensive marketing plans. Prerequisite: MHA 6100 and MHA 6200.

### **MHA 6440 - Health Ethics and Law**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

Selected legal principles and their application to health field. Legal aspects of corporate liability, medical malpractice, admission and discharge processes, medical staff bylaws, informed consent, nursing, patients' rights, medical records, and governmental regulation of personnel and health facilities.

### **MHA 6450 - Managing Health Information**

**Credits: (3)**

**Typically taught:**

**Spring [2nd Blk]**

Introductory course that provides basic vocabulary and principles of modern information architectures. Computer networking and communication technologies needed to support modern information infrastructures. Differences between integrated and quilted systems are examined. Emphasis on management and use of information to support management decision making.

### **MHA 6500 - Field Work**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course provides a capstone experience where the student synthesizes theory learned the classroom and applies it real world problem solving in health care organizations. Designed to integrate the knowledge gained in other graduate courses into an applied management project. The project will have enterprisewide applicability to a health services organization. The Student will develop and present a deliverable product that could be implemented by management to improve their organizational performance, specifically with analysis and recommendations for policy and strategic improvements. Prerequisite: MHA 6000, MHA 6200, MHA 6300, MHA 6400.

### **MHA 6830 - Directed Study**

**Credits: (1-3)**

Directed individual study and research on special topics related to health care. May be repeated for a cumulative total of three credits. Prerequisite: Approval of MHA program and instructor.

### **MICR 1113 LS - Introductory Microbiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online, 1st Blk Online, 2nd Blk Online]**

An introduction to microorganisms, their biology, and their relationships to health, technology, and the environment, with practical applications. Three lecture/demonstrations per week.

### **MICR 1153 LS - Elementary Public Health**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online, 1st Blk Online, 2nd Blk Online]**

Principles and practices of public health, emphasizing prevention and control of communicable and degenerative diseases, and environmental health problems. Three lectures/demonstrations per week.

### **MICR 1370 LS - Principles of Life Science**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A survey course for elementary education majors. Course content includes cells, cell chemistry, genetics, plant and animal anatomy, plant and animal classification, physiology, immune systems, evolution and ecology. Unifying concepts of all living things will be emphasized. Two hours of lecture and one 3-hour laboratory per week. Cross-listed with BTNY 1370 and ZOO 1370.

### **MICR 2054 LS - Principles of Microbiology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Study of the morphology, reproduction, cultivation, metabolism, genetics, and ecology of microorganisms, along with many applications. This introductory microbiology course is designed for science majors and consists of three one-hour lectures and one two-hour lab per week. Prerequisite: CHEM 1210 or CHEM 1110 or CHEM 1200 or equivalent.

### **MICR 2600 - Laboratory Safety**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary, team-taught course that will be an overview of the major chemical, biological and physical safety issues related to science laboratories and field work. Class will meet once per week and will be taught in a lecture/demonstration format.

### **MICR 2890 - Cooperative Work Experience**

**Credits: (1-5)**

Open to all students in the Microbiology Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department.

### **MICR 2920 - Short Courses, Workshop, Institutes and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated up to 10 times for credit.

### **MICR 3012 - Microbiology and Global Public Health**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

This course focuses on microbial diseases that are major causes of morbidity and mortality worldwide (e.g. HIV, tuberculosis, malaria, influenza etc.), diseases that are classified as emerging diseases (e.g. Ebola) and diseases that are being eliminated or eradicated, including certain Neglected Tropical Diseases. This course will analyze the pathogenesis, life cycles, epidemiology and societal impacts of these diseases, while emphasizing preventative interventions such as vaccinations, water and sewage treatment, and elimination and eradication strategies. The role of various agencies (e.g. WHO and CDC) in improving global health will also be discussed. Prerequisite: MICR 1113 or MICR 1153 or MICR 2054 or permission of the instructor. (Two one hour lectures per week).

### **MICR 3053 - Microbiological Procedures**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Microscopy, staining methods, preparation of media, sterilization, preservation and maintenance of cultures, culture identification, enumeration methods, instrumentation. Two lectures and one 2-hour lab per week. Prerequisite: MICR 2054 and MATH 1050 or MATH 1080 or MATH 1210.

### **MICR 3154 - Microbial Ecology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Factors determining the growth and distribution of microorganisms in their natural habitats. Microbial diversity and their interactions with other living organisms and their surroundings. Microbial activities in nature, including biogeochemical cycles. Three lectures and one three-hour lab. Prerequisite: MICR 2054.

### **MICR 3203 - The Immune System in Health & Disease**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course will focus on the study of the human immune system and its role in health and disease. The course topics include the innate and adaptive immune responses and their role in host defense as well as immunodeficiency and hypersensitivity responses. Manipulation of the immune system through pharmacological means, vaccination or transplantation will also be studied. Three lectures per week. This course is intended for the student studying Medical Lab Sciences or someone who wants to know more about the human immune system and who has already taken a course in Biology Microbiology. This course is not intended as a first course in biology nor can it be used as a Microbiology elective course for Microbiology majors.

### **MICR 3254 - Immunology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

The study of the immune response in mammals. Three lectures and one 3 hour lab per week. Prerequisite: MICR 2054 or consent of instructor.

### **MICR 3305 - Medical Microbiology**

**Credits: (5)**

**Typically taught:**

**Spring [Full Sem]**

Characteristics of pathogenic microorganisms and mechanisms by which they cause disease in higher animals. Three lectures and two two-hour labs per week. Prerequisite: MICR 3254.

### **MICR 3340 - Information Resources in the Life Sciences**

**Credits: (2)**

A practical introduction to the literature and information resources of the life sciences. Students will expand their research skills and be able to develop effective research strategies to find and synthesize information available in academic libraries. Two lecture hours per week. Prerequisite: ENGL 2010. Cross listed in Botany, Library Sciences and Zoology.

### **MICR 3403 - Tropical Diseases**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of tropical diseases, caused by viral, bacterial, protozoan, fungal, and helminthic agents, including their transmission, disease course, pathogenesis, treatment, prevention and control using a multi-disciplinary approach integrating case studies, labs, epidemiology, immunopathology as well as microbiology. Two hours of lecture, one 3 hour laboratory per week. Prerequisite: MICR 2054.

### **MICR 3484 - Environmental Microbiology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Applied, environmental microbiology and biotechnology including transport of microorganisms through environment, microbial pathogens and toxins in environment. Biodeterioration, contamination control, and biosafety. Pollution microbiology, environmental management, bioremediation, waste treatment, biological insecticides. Microbiology of man-made environments. Three lectures and one three-hour lab per week. Prerequisite: MICR 2054.

### **MICR 3502 - Environmental Health**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Air and water quality, solid and hazardous waste management, food protection, environmental inspection and testing. Two lectures per week. Prerequisite: MICR 1113 or MICR 2054 or consent of instructor.

### **MICR 3570 - Foundations of Science Education**

**Credits: (3)**

A thorough investigation of research in science learning and curricular standards at the state and national levels. Foundations of the philosophy of science and scientific inquiry as applicable to science teaching at the secondary level. This course serves as a foundation to a pre-service science teacher's education coursework.

### **MICR 3603 - Advanced Microbiology for the Health Professions**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Characteristics of microorganisms and parasites - emphasizing mechanisms by which they cause disease in humans. Intended for students in the Clinical Laboratory Sciences program and those working that field. Cannot be used as a Microbiology elective course for Microbiology majors.

### **MICR 3753 - Geomicrobiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Geomicrobiology is the study of the interactions between microorganisms and minerals. This course will explore 1. geological change mediated by microorganisms, 2. microbial evolution driven by geologically diverse habitats, and 3. applications of geomicrobiology, including understanding the evolution of life on earth, the study of life in extreme environments, and industrial applications of geomicrobiology. This team-taught course includes classroom discussion, laboratories, and field trips. Prerequisite: CHEM 1210 or approval of the instructor. Cross-listed with GEO 3753.

### **MICR 3853 - Food Microbiology**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Role of microorganisms in food production, preservation, and spoilage. Two lectures and one 2-hour lab per week. Prerequisite: MICR 2054.

### **MICR 4054 - Microbial Physiology**

**Credits: (4)**  
**Typically taught:**  
**Fall [Full Sem]**

Structure, function, and metabolism of microorganisms, with emphasis upon the bacteria. Three lectures and one 3-hour lab per week. Prerequisite: MICR 2054 and completion of or concurrent registration in CHEM 3070.

### **MICR 4154 - Microbial Genetics**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

Genetics of microorganisms and its applications, including mutation, gene transfer systems, recombination, plasmids, recombinant DNA technology, and transposons. Three lectures and one 3-hour lab per week. Prerequisite: MICR 2054. CHEM 3070 recommended.

### **MICR 4252 - Cell Culture**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**

Basic methods and applications for culturing plant and animal cells in vitro. Two 2-hour combined lecture and laboratory sessions per week. Prerequisite: MICR 2054 or BTNY 2104 and BTNY 2121. (cross-listed with Botany)

### **MICR 4354 - Industrial Microbiology and Biotechnology**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

Beneficial and detrimental involvement of microorganisms in industrial processes, microbial products, biotechnology, contamination control, and antimicrobial agents including antibiotics. Three lectures and one 3-hour lab per week. Prerequisite: MICR 2054, CHEM 2310 or CHEM 3070. MICR 3053 recommended.

### **MICR 4554 - Virology**

**Credits: (4)**  
**Typically taught:**  
**Spring [Full Sem]**

Virus structure, classification, genetics, replication and other interactions with the host, with emphasis on bacteriophage and animal viruses. Three lectures and one 3-hour lab per week. Prerequisite: MICR 2054.

### **MICR 4570 - Secondary School Science Teaching Methods**

**Credits: (3)**

Acquaintance and practice with various teaching and assessment methods. Development of science curricula including lesson and unit plans. It is recommended that this course be completed immediately before student teaching.

Prerequisite: Admission to the Teacher Education Program.

### **MICR 4800 - Directed Research**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent research under the advisement of a faculty member. No more than 3 credit hours of 4800 and no more than 2 credit hours of 4830 may count toward the major. Prerequisite: consent of instructor and a minimum of 6 credits of upper division microbiology course work. May be repeated up to 10 times for credit.

### **MICR 4830 - Directed Readings**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent readings on advanced special topics under the direction of a faculty member. No more than 3 credit hours of 4800 and no more than 2 credit hours of 4830 may count toward the major. Prerequisite: consent of instructor and a minimum of 6 credits of upper division microbiology course work. May be repeated up to 10 times for credit.

### **MICR 4890 - Cooperative Work Experience**

**Credits: (1-5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students in the Microbiology Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. May be repeated up to 10 times for credit.

### **MICR 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated up to 10 times for credit.

### **MICR 4991 - Microbiology Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Current topics in Microbiology. One hour per week. Prerequisite: Previous upper division courses in the department.

### **MICR 5034G - Microbiology for Teachers**

**Credits: (4)**

Science content course for teachers in the MEd Science Emphasis Program.

### **MILS 1010 - Introduction to the Army and Critical Thinking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduces cadets to the personal challenges and competencies critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, time management, goal setting, stress management and comprehensive fitness relate to leadership and the Army profession. A three hour weekly leadership lab is included, as well as one weekend field training exercise during the semester. Participation in weekly physical fitness training is expected and should be taken as MILS 2400.

### **MILS 1020 - Introduction to Profession of Arms**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Introduces cadets to the personal challenges and competencies that are critical for adaptive leadership. Cadets learn the basics of the communications process and the importance for leaders to develop the essential skills to effectively communicate in the Army. Students will examine the Army profession and what it means to be a professional in the U.S. Army. A three-hour weekly leadership lab is included as well as one weekend field training exercise during the semester. Participation in weekly physical fitness training is expected and should be taken as MILS 2400.

### **MILS 2010 - Innovative Team Leadership**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Builds on previous leadership instruction enhancing student skills in land navigation, small unit tactics, written and oral communication, event planning, group coordination and effectiveness and first aid. During this course, students develop basic skills for leading others in a tactical environment. A three-hour weekly leadership lab is included as well as one weekend field training exercise during the semester. Participation in weekly physical fitness training is expected and should be taken as MILS 2400.

### **MILS 2020 - Foundations of Tactical Leadership**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course focuses on leader effectiveness. Course content includes analysis of selected historical leaders and battles using the principles of war and other tenets. Student led discussions highlight lessons learned relative to leadership and organizational success. Oral communications skills are central to this course. A three-hour weekly leadership lab is included as well as one weekend field training exercise during the semester. Participation in weekly physical fitness training is expected and should be taken as MILS 2400.

### **MILS 2400 - Physical Readiness**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical conditioning course that employs U.S. Army principles of fitness. Subjects include: body composition, nutrition, cardiorespiratory fitness, muscle endurance and strength, circuit training and drills. Students registered for MILS 1010, MILS 1020, MILS 2010, or MILS 2020 are encouraged to enroll in this course to gain the full perspective of the physical demands required to be an Army officer. May be repeated 3 times with a maximum of 4 credit hours.

### **MILS 2600 - Leadership Under Fire**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will explore both functional and dysfunctional behavior in leadership roles. Using examples from military and civilian leadership, this course will teach leadership techniques essential for future managers and leaders that will be of great value to both civilian and military leaders. It will focus on ethical/moral, historical, and social influences and examine outlook, styles, skills, and behavior essential for providing successful leadership. This will culminate in a hands-on team-building exercise. No prerequisites. Students are NOT required to be enrolled in a ROTC course, nor to do so in the future.

### **MILS 2830 - Directed Readings, Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent reading/research on topic(s) of military interest under the supervision of a Military Science faculty member. Prerequisite: Requires instructor permission. May be repeated 2 times with a maximum of 3 credit hours.

### **MILS 2921 - Cadet Initial Entry Training**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

A four-week leadership camp conducted at Fort Knox, Kentucky. Designed to introduce students to basic military skills and leadership requirements. Training includes rappelling, marksmanship, small unit tactics, physical fitness, leadership, and adventure training. Credit/no credit grade only. Prerequisite: Requires instructor permission.

### **MILS 2922 - Northern Warfare**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

A two week course conducted in Alaska. Provides training in cold weather survival and small unit tactics. Credit/no credit grade only. Prerequisite: include the completion of the basic course and instructor permission.

### **MILS 2923 - Air Assault**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

A two week course conducted at an Army installation in the continental U.S. Provides students training in helicopter operations to include sling loading and rappelling. Credit/ no credit grade only. Prerequisite: include successful completion of the basic course and instructor approval.

### **MILS 3010 - Adaptive Team Leadership**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Develops leadership skills within the framework of the U.S. Army. This course focuses on theory and application of decision making, planning, organizing, management control and communications. The course also emphasizes small unit tactics and advanced land navigation skills; it includes a three-hour weekly leadership lab. Students must participate in up to three, one-hour physical fitness sessions per week, which may be taken as MILS 4400, to satisfy requirements of the Military Science minor. One weekend field training exercise is required during the semester.

### **MILS 3020 - Leadership in Changing Environments**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Focuses on theory and application of small unit tactics, leadership and land warfare. Subjects include preparing and issuing combat orders, organizing for combat, unit and individual movement techniques, communications and security. A three-hour weekly leadership lab is included. Students must participate in up to three, one-hour physical fitness sessions per week, which may be taken as MILS 4400, to satisfy requirements of the Military Science minor. One weekend field training exercise is required during the semester.

### **MILS 4010 - Mission Command and the Army Profession, Part 1**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course focuses on the functions and roles of the commander/ leader and the staff. Subject matter includes problem solving, planning techniques and procedures, written and oral communications, training management and evaluation systems. A three-hour weekly leadership lab to enhance leadership skills and apply classroom instruction to hands on training and execution is included. Students must participate in up to three, one-hour physical fitness sessions per week, which should be taken as MILS 4400, to satisfy requirements of the Military Science minor. One weekend field training exercise is required during the semester.

## **MILS 4020 - Mission Command and the Army Profession, Part 2**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

A conference course addressing future roles and responsibilities of junior Army officers. Subject matter includes the world environment and future threats to U.S. security, the spectrum of Army requirements, Army modernization initiatives, the laws of war, joint operations and other issues designed to complete the cadet-to-lieutenant process. A three-hour weekly leadership lab to enhance leadership skills and apply classroom instruction to hands-on training and execution is included. Students must participate in up to three, one-hour physical fitness sessions per week, which should be taken as MILS 4400, to satisfy requirements of the Military Science minor. One weekend field training exercise is required during the semester.

## **MILS 4400 - Advanced Physical Readiness**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides advanced instruction in physical fitness employing Army techniques and procedures. Students assist Military Science faculty in the planning/conduct of physical fitness training activities performed by lower division students. Prerequisite: Requires instructor permission. (Students must be enrolled in one of the following courses: MILS 3010, MILS 3020, MILS 4010, or MILS 4020.) May be repeated 3 times with a maximum of 8 credit hours.

## **MILS 4830 - Directed Readings, Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent reading/research on topics of military interest under the supervision of a Military Science faculty member. For each credit awarded the student will read approximately 1000 pages and prepare a written review or summary. Prerequisite: Requires instructor permission. May be repeated for a maximum of 6 credit hours.

## **MILS 4921 - Cadet Leadership Course (CLC)**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

A five week leadership camp conducted at Fort Lewis, Washington. The Advanced Camp environment stresses small unit leadership under varying and challenging conditions. Credit/no credit grade only. Prerequisite: Requires instructor approval. Open only to students who have successfully completed basic course requirements, MILS 3010 and MILS 3020.

## **MILS 4922 - Airborne Operations**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

A three week course conducted at Fort Benning, Georgia. Provides students training in military sky diving techniques

with practical applications. Credit/no credit grade only. Prerequisite: Requires instructor approval. Prerequisite includes completion of the basic course.

### **MILS 4923 - Cadet Troop Leader Training**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

A two week course conducted at an Army installation in the continental U.S. or overseas. Provides first hand experience in an Army unit. Students learn about military life and the duties of a lieutenant. Credit/no credit grade only. Prerequisite: include completion of MILS 3010, MILS 3020 and Advanced Camp. Requires instructor approval.

### **MIS 1100 SS - The Digital Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

The explosive growth of information technologies in general, and the Internet in particular, has irreversibly changed the way we work and play. This course prepares students to be knowledgeable citizens of cyberspace. It reviews our social institutions and how they are being impacted by information technology as well as the ways in which technology has been shaped by our social institutions. The course also provides hands-on experience with a variety of Internet tools.

### **MIS 2010 - Business Computer Skills**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course prepares all students in business and economics to demonstrate current competence in desktop software commonly used in the business environment. The course covers computer competencies students will use in their business functional and cross-functional core courses, using more complex features of desktop software. It is followed by a hands-on exam that tests these competencies. *Credit/No credit.*

### **MIS 2015 - Introduction to Information Systems & Technologies**

**Credits: (1)**

**Typically taught:**

**Not currently being offered**

This course introduces the student to the role played by computer technology in business strategy and problem resolution. It also introduces information technologies used in information systems, including: software development, hardware, operating systems, network management, project planning, and career paths. Students will develop their academic MIS program plan. Lecture series by MIS Faculty.

## **MIS 2020 - Introduction to Information Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Overview of the role and use of information systems to support individual, group, and business decision-making. Includes coverage of technology's role in supporting the business decision-making process. It will prepare students to use information technologies effectively to improve productivity and promote competitive position in the marketplace. Prerequisite: MIS 2010.

## **MIS 2030 - Introduction to Business Analytics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Business analytics refer to the ways in which organizations use data to gain insights and make better decisions, and has become a critical capability for organizations of all types and sizes. It is applied in various business functions including marketing, finance, human resources, operation and strategic planning. This course covers basic analytic methods used by organizations. Students will learn how to explore, manipulate and present data. They will also learn how to use data to develop insights and predictive capabilities by using predictive analytics techniques. Prerequisite: MATH 1040 or QUAN 2600.

## **MIS 2110 - Software Development I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course introduces the student to the fundamentals of software construction using a contemporary programming language. This includes the IDE (Integrated Development Environment), syntaxes of the language, basic programming constructs, data representation, object concepts, programming flow control and problem solving logic. Students will design, program and debug several business application projects. Prerequisite: MATH 1050.

## **MIS 2410 - Information Systems Architecture**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course provides students with a thorough grounding in computer hardware and operating system software, peripheral devices and contemporary information system architecture, including its structure, theory, and applications.

## **MIS 2720 - Data Structures and Algorithms**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course introduces the basics of specifying abstract data types, control structures and modularization, and using them

to design programs. Commonly used data structures and algorithms are studied. Emphasis is made on choosing data structures and algorithms appropriate for solving given business problems. Prerequisite: MATH 1050 and MIS 2110.

### **MIS 2891 - Cooperative Work Experience**

#### **Credits: (1)**

Open to all associate's degree-seeking students who have been selected to serve an internship in the information technology field or who have identified a special MIS project with their current employer, subject to approval by the Management Information Systems Department. Prerequisite: Department Approval.

### **MIS 2892 - Cooperative Work Experience**

#### **Credits: (2)**

Open to all associate's degree-seeking students who have been selected to serve an internship in the information technology field or who have identified a special MIS project with their current employer, subject to approval by the Management Information Systems Department. Prerequisite: Department Approval.

### **MIS 2893 - Cooperative Work Experience**

#### **Credits: (3)**

Open to all associate's degree-seeking students who have been selected to serve an internship in the information technology field or who have identified a special MIS project with their current employer, subject to approval by the Management Information Systems Department. Prerequisite: Department Approval.

### **MIS 2894 - Cooperative Work Experience**

#### **Credits: (4)**

Open to all associate's degree-seeking students who have been selected to serve an internship in the information technology field or who have identified a special MIS project with their current employer, subject to approval by the Management Information Systems Department. Prerequisite: Department Approval.

### **MIS 3210 - Database Design and Implementation**

#### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides a comprehensive coverage of business database systems. Students will learn how to design, implement and manage databases. They will learn both GUI interface and how to use the Structured Query Language (SQL). They will also gain experience in using an enterprise level, multi-user database. Prerequisite: MATH 1050 and MIS 2110, or MIS 2020.

### **MIS 3220 - Business Intelligence**

#### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an understanding of the concepts of Business Intelligence (BI) as an information technology approach of data collection and data analysis to help enterprise users make better managerial decisions. The course explores the detailed discussion of the analysis, design, and implementation of systems for BI including enterprise data-warehousing, knowledge management systems, big data, and text mining. The course will help students learn analytical components and technologies to integrate, analyze and report data. The course will utilize Microsoft BI tools including

Microsoft Power BI desktop, SQL Server Integration Services (SSIS), SQL Server Analysis Services (SSAS) and SQL Server Reporting Services (SSRS). Prerequisite: MIS 2030.

### **MIS 3230 - Data Mining for Business**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will examine how data mining technologies can be used to improve decision-making. Students will study the principles and techniques of data mining, including gaining knowledge of the algorithms and computational paradigms that allow computers to find patterns in large datasets. Students will examine real-world examples and cases to place data-mining techniques in context, to develop data-analytic thinking, and to illustrate that proper application is as much an art as it is a science. Prerequisite: MIS 2030.

### **MIS 3610 - Networks & Data Communications I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an introduction to the design, operation, and management of telecommunication systems. It covers computer network definitions, concepts and principles, including (but not limited to): server management; topologies; protocols; standards; and fundamental concepts related to data communication networks. Prerequisite: MIS 2020 or MIS 2410.

### **MIS 3620 - Networks and Data Communications II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

In this intensive hands-on course, the student will acquire the skills and techniques needed to configure, troubleshoot and support reliable TCP/IP internetworks. The student will learn the essentials of building an internetwork, including routing, configuring the Domain Name Server (DNS), setting up and managing a web server, configuring a firewall and IDS, and standards-based email. Students will also participate in configuring clients, redesigning networks and troubleshooting routing. Prerequisite: BSAD 2899 and MIS 3610.

### **MIS 3700 - E-business Technologies & Web Development**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course provides students with knowledge of technologies needed in planning, implementing and supporting web-hosted applications and on-line commerce. Topics include web and commerce server design and deployment, search engines n-tier web architecture and supporting software, client-side/server-side programming with data-bound controls and session management, e-business application languages, markup languages, on-line payment mechanisms, systems reliability and security, scalability analysis, and solutions sourcing. Prerequisite: BSAD 2899 and MIS 2110, or MIS 2020.

### **MIS 3710 - Global Issues in Information Technology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course shows how information technology is used as a key competitive advantage by multinational and transnational businesses. Topics include global perspectives on coordination and control, cultural dimensions, and geo-political considerations of global information technology applications. Prerequisite: BSAD 2899.

### **MIS 3720 - Software Development II**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course builds on the software development skills learned in Software Development I. Topics include class hierarchies, inheritance and interfaces, object aggregation, data structure and collections, file management, threading, network programming, and the design of multi-tiered, distributed computing applications involving relational databases. Prerequisite: BSAD 2899 and MIS 2720.

### **MIS 3730 - Systems Analysis and Design**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course provides the knowledge and skills to design and implement computer-based systems to solve business problems. Topics include feasibility studies, requirement analysis, system design and development, implementation and testing. Students will learn the use of appropriate methodologies and tools, including object-oriented modeling and the use of computer-aided software engineering (CASE). Prerequisite: BSAD 2899 and MIS 3210.

### **MIS 3740 - Business Machine Learning**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to teach and give students hands-on experience with cutting-edge machine learning methods used frequently in business contexts. Many companies have made significant contributions to the field of data analytics with products and services they've launched. This class is designed to prepare students to participate in such analysis to make significant business impact. We examine Netflix- and Amazon-style recommender systems and market basket analyses, customer segmentation and classification, Zillow-style prediction of home sale prices, and other business-relevant examples. Prerequisite: MIS 2030.

### **MIS 3750 - Electronic Business Communications**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This course gives students knowledge regarding the best practices in designing or developing electronic presentations, meetings, and collaborations. This course also familiarizes students with technologies fostering effective communication in virtual situations. Prerequisite: BSAD 2899, MGMT 3200 or PS 3250.

## **MIS 4600 - Information Security I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course looks at management issues and practical implications related to securing information systems. This course focuses on the threat environment, security policy and planning, cryptography, secure networks, access control, firewalls, host hardening, application security, data protection, incident response, and networking and a review of TCP/IP.

Prerequisite: Business Foundations; BSAD 2899 and MIS 2020, or MIS 3610.

## **MIS 4620 - Information Security Basics**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

In a computer-literate age, sophisticated criminals use computers in their illegal and destructive activities. This course discusses cybercrime and teaches students to understand networks; the phases of computer hacking; and setting up a secure environment. Prerequisite: BSAD 2899 and MIS 2410 or MIS 3610.

## **MIS 4700 - Information Security II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the basic principles and concepts in information security and information assurance. It examines the technical, operational, and organizational issues of securing information systems. Topics include operating system issues, viruses, security awareness at the executive, technical and user levels, physical security, personnel security issues, policies, procedures, and the need for an enterprise security organization. Case studies and exercises in the computer lab will be used to provide examples of the need for organizations to develop security procedures and policies. Prerequisite: BSAD 2899 and MIS 4600.

## **MIS 4710 - Enterprise Software Development**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course introduces students to the concept of a business as an integrated set of business processes and associated systems designed to deliver value to customers. It focuses on enterprise systems, product lifecycle management, and supply chain management. This course also focuses on how to effectively manage enterprise projects with respect to organizational constraints. Students will learn how to manage project initiation, planning, execution, monitoring and closing. Prerequisite: BSAD 2899 and MIS 2020.

## **MIS 4720 - Emerging Information Technologies**

**Credits: (3)**

**Variable Title**

**Typically taught:**

**Fall [Full Sem]**

New information technologies can give early adopters significant competitive advantage when used with careful planning,

or they can mean disaster if hastily implemented. This course covers how to conduct an environmental scan toward evaluating and implementing new information technologies. Prerequisite: BSAD 2899, and MIS 2410, or MIS 2020.

### **MIS 4730 - IT Project Management and Systems Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course covers project management principles, methodology, and tools. It also provides the knowledge and skills to design and implement computer-based systems to solve business problems. Topics include the planning and management of IT and software development projects, requirement analysis, system design and development, implementation and testing. Prerequisite: Business Foundations; BSAD 2899 and MIS 3210 and MIS 3610 and MIS 2110.

### **MIS 4801 - Individual Projects**

**Credits: (1)**

This course is open only to senior MIS majors. Students will be required to complete an individual project, program, system, or research paper which will enhance their skills and marketability. Prerequisite: BSAD 2899, Management Information Systems Department approval, and Senior standing.

### **MIS 4802 - Individual Projects**

**Credits: (2)**

This course is open only to senior MIS majors. Students will be required to complete an individual project, program, system, or research paper which will enhance their skills and marketability. Prerequisite: BSAD 2899, Management Information Systems Department approval, and Senior standing.

### **MIS 4803 - Individual Projects**

**Credits: (3)**

This course is open only to senior MIS majors. Students will be required to complete an individual project, program, system, or research paper which will enhance their skills and marketability. Prerequisite: BSAD 2899, Management Information Systems Department approval, and Senior standing.

### **MIS 4810 - Experimental Courses**

**Credits: (1-3)**

Experimental or one-time courses designed to fill a need in the community or investigate interesting and unusual topics. May be repeated 5 times with a maximum of 6 credit hours with different topics.

### **MIS 4850 - Information Systems & Technology Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore information systems and technology theory and practice in countries other than the U.S. Students will study global information systems as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. May be repeated once up to 6 credits.

### **MIS 4891 - Cooperative Work Experience**

**Credits: (1)**

Prerequisite: Management Information Systems Department Approval.

### **MIS 4892 - Cooperative Work Experience**

**Credits: (2)**

Prerequisite: Management Information Systems Department Approval.

### **MIS 4893 - Cooperative Work Experience**

**Credits: (3)**

Prerequisite: Management Information Systems Department Approval.

### **MIS 4894 - Cooperative Work Experience**

**Credits: (4)**

Prerequisite: Management Information Systems Department Approval.

### **MIS 5930G - Professional Development Workshop in Information Technology**

**Credits: (1-4)**

Information technology professionals must remain current with new technologies to remain competitive in their careers. This course offers professional development in new systems and software as they enter the mainstream of information technology practice. Prerequisite: Permission of instructor.

### **MIS 6610 - Information and Communications Technologies for e-Business**

**Credits: (3)**

Covers the information and communications technology infrastructure required to support a robust e-business activity. Issues such as reliability, scalability, security, and responsiveness as well as n-tier architectures are reviewed.

Prerequisite: MACC, MBA, or MIS Certificate program standing.

### **MIS 6620 - Databases & Information Systems**

**Credits: (3)**

This course covers the role of database technology in information systems. Through hands-on and conceptual knowledge, students will learn how databases are used to construct and operate information systems designed to support decision making. Various aspects of database systems including both correct methods and problems encountered during the design, implementation and operation of database systems will be covered. Students will gain hands-on familiarity with a relational database system. Prerequisite: Admittance to MACC or MBA program and MIS 2020 or equivalent.

### **MIS 6800 - Directed Studies**

**Credits: (1)**

Directed individual study and research on special topics related to information assurance. May be repeated for a cumulative total of three credit hours. Prerequisite: Approval of Management Information Systems Department Chair and course instructor.

## **MKTG 3010 - Marketing Concepts and Practices**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, Full Sem Online]**

This course includes planning, implementation, and control of the marketing process; consumer behavior; marketing research; segmentation and target marketing; and consideration of price, place, and promotion.

## **MKTG 3100 - Consumer Behavior**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The application of psychological, sociological, and anthropological findings to the purchase and consumption of goods and services by ultimate and industrial consumers. Prerequisite/Co-requisite: Prerequisite or concurrent enrollment: MKTG 3010.

## **MKTG 3200 - Selling and Sales Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory, methods, and techniques of personal selling in professional settings including analysis of buyer behavior, the delivery of customer satisfaction, and integration of personal selling with other marketing communication tools. Sales management includes managing the sales force, salesperson selection, deployment, compensation, training, field supervision and industrial marketing management. Prerequisite: MKTG 3010.

## **MKTG 3450 - Promotion Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Strategic development of advertising, sales, sales management, public relations, and sales promotion programs. Prerequisite: BSAD 2899, MKTG 3010. Prerequisite or concurrent enrollment: MKTG 3100.

## **MKTG 3500 - Services and Sports Marketing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Marketing education has traditionally focused on the marketing of goods. However, services account for the majority of the economic activity in the United States and much of the developed world. In order to successfully develop and manage service products, marketers must understand the characteristics that differentiate them from conventionally manufactured goods. This course aims to systematically study these characteristics and the challenges they present to marketers in service organizations. The latter half of the course will focus on sports marketing as a special form of services marketing. Prerequisite: BSAD 2899, MKTG 3010.

### **MKTG 3600 - International Marketing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online]**

In this course students will learn the problems and procedures of marketing in foreign countries, including effects of foreign cultures and marketing systems on the design of marketing programs. Prerequisite: BSAD 2899; MKTG 3010.

### **MKTG 3700 - Business Studies Abroad - International Marketing**

**Credits: (3)**

Basic principles of international marketing. Fundamentals of international market research including macro and micro-level analysis. Discusses international marketing as part of a global strategy. This course is taught at Fachhochschule Hof, Germany during each fall semester. Students enrolled in this course have to participate in the Study Abroad Program (Contact: Doris Geide-Stevenson, ext. 7634, dgsteven@weber.edu). Prerequisite: BSAD 2899, MKTG 3010.

### **MKTG 4200 - Internet Marketing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is an elective course for Management Information Systems and Marketing majors. The course deals with the steps used in developing a marketing plan, orienting the plan to developing an Internet presence, and developing a World-Wide Web site to implement the on-line components of the plan. Prerequisite: BSAD 2899, MKTG 3010.

### **MKTG 4400 - Marketing Strategy**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

This course centers on gaining and sustaining competitive advantages. It entails analyzing customers, competitors, and internal capabilities; then making appropriate product, pricing, promotion, and distribution decisions. Prerequisite: BSAD 2899; ACTG 2020; MGMT 3200 or PS 3250; MKTG 3010.

### **MKTG 4800 - Independent Research**

**Credits: (1-3)**

Directed research and study on an individual basis. May be repeated until a total of 4 hours credit is accumulated.

Prerequisite: BSAD 2899; Senior Standing; Written Instructor Approval.

### **MKTG 4850 - Marketing Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore marketing theory and practice in countries other than the U.S. Students will study international marketing as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. May be repeated once up to 6 credits.

## **MKTG 4860 - Marketing Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A structured professional-level field experience. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through the Marketing courses. Prerequisite: BSAD 2899; Instructor approval.

## **MLS 1001 - Online Orientation for AAS Degree**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course is designed to prepare the student for the online environment and specifics of the MLS program. Course components include: study and computer skills, learning styles, MLS student handbook, library tutorial, faculty introductions, contact and troubleshooting information, and academic advisement tailor-made specifically for AAS degree MLS students online.

## **MLS 1003 - Introduction to Clinical Immunology**

**Credits: (1)**

**Typically taught:**

**Not currently offered**

Principles and applications for laboratory testing including safe practices for laboratory practitioner, specimen quality assurance, basic concepts in clinical immunology, and clinical approaches to immunological testing. Prerequisite: This course requires the older number, MLS 1000. \*Acceptance into the MLS AAS Program required

## **MLS 1010 - Core Clinical Laboratory Skills**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

The MLS 1010 course is designed to teach core clinical laboratory skills to individuals from various health care professions. The curriculum will focus on basic laboratory methods in quality control, quality assurance, information recording and transfer, normal and abnormal laboratory values, and problem recognition. Students will receive basic technical instruction in laboratory safety, microscopy, phlebotomy, specimen collection and processing, and laboratory instrumentation in the areas of hematology, serology, urinalysis, and clinical chemistry and microbiology. Students must have the support of a clinical laboratory to fulfill the laboratory requirement. The laboratory component will address applications with a focus on Point of Care testing (POCT). Students will be required to spend a minimum of 4 unpaid hours per week working on laboratory competency. Upon successful completion of the course students will receive a Certificate of Completion from the Dr. Ezekiel R. Dumke College of Health Profession's Clinical Laboratory Assistant (CLA) program. Prerequisite: Departmental Approval.

### **MLS 1113 - Introduction to Medical Laboratory Practices**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Principles and applications to laboratory testing including safe practices for the laboratory practitioner, specimen quality assurance, phlebotomy, urinalysis, basic concepts in clinical immunology, clinical chemistry, and clinical microbiology. Laboratory session addresses the principles and applications involved in medical laboratory assisting to include safety, microscopy, specimen processing, quality assurance, phlebotomy, and urinalysis; with a focus on Point of Care testing (POCT) in clinical immunology, clinical chemistry, and clinical microbiology.

\*Acceptance into the MLS AAS Program required

### **MLS 1114 - Principles of Hematology and Hemostasis**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Fundamental theories of hematopoiesis, routine laboratory evaluation of blood components using standard instrumentation and microscopic methods, including safety and quality control. Fundamental theories of hemostasis and introduction to abnormal hematology. Introduction to routine laboratory methods in hemostasis. At least one semester of chemistry and one semester of anatomy/physiology is recommended prior to taking this course. Prerequisite: MLS 1113. \*Acceptance into the MLS AAS Program required.

### **MLS 2003 - Applied Laboratory Mathematics and Laboratory Statistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A discipline-specific course which tailors applied laboratory mathematics and clinical statistics to all areas of the medical laboratory with emphasis in clinical chemistry. Topics to include reagent preparation, specimen dilution protocols, quality assurance and quality control, practical applications of common statistical tests, and statistical analysis using Microsoft Excel. The course is designed to complement the mathematics component of Clinical Chemistry MLS 2211 and MLS 2213.

### **MLS 2210 - Principles of Immunohematology**

**Credits: (5)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Lecture and laboratory covering the theory and principles of Immunohematology relevant to blood group serology, antibody detection and identification, compatibility testing, component preparation and therapy in blood transfusion service, quality controls, donor screening and phlebotomy, transfusion reactions and hemolytic disease of the newborn. Prerequisite: MLS 1113. \*Acceptance into the MLS AAS Program required.

### **MLS 2211 - Principles of Clinical Chemistry I**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Basic concepts and techniques in clinical chemistry and quality control utilizing manual and automated laboratory procedures. Emphasis on blood and body fluid assessments of carbohydrates, bilirubin, non-protein nitrogen testing and electrolyte acid/base balance. Prerequisite: CHEM 1110 and CHEM 1120 or CHEM 1210 and CHEM 1220. \*Acceptance into the MLS AAS Program required

### **MLS 2212 - Principles of Clinical Microbiology I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

This course provides an in-depth coverage of clinically significant pathogenic cocci and Gram negative rods, including epidemiology, pathogenicity, and procedures for traditional laboratory identification. Prerequisite/Co-requisite: Pre/Co-requisite: MICR 1113 or MICR 2054. \*Acceptance into the MLS AAS Program required.

### **MLS 2213 - Principles of Clinical Chemistry II**

**Credits: (5)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Continuation of MLS 2211 with the introduction to methods for the assessment of proteins, lipids, enzymology, therapeutic drug monitoring, toxicology and basic endocrinology. Prerequisite: MLS 2211. \*Acceptance into the MLS AAS Program required

### **MLS 2214 - Principles of Clinical Microbiology II**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

This course is a continuation of MLS 2212 including, antimicrobial testing, clinical mycology, virology, parasitology and miscellaneous clinical bacteria including Gram positive bacteria, mycobacteria, and anaerobes. Prerequisite: MLS 2212. \*Acceptance into the MLS AAS Program required.

### **MLS 2256 - Supervised Clinical Experience I**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Off campus supervised clinical experiences administered in conjunction with clinical faculty in WSU affiliated health care institutions. Offered CR/NC only. Co-Requisite: MLS 2257. Online students receive credit for clinical experience.

\*Acceptance into the MLS AAS Program required

## **MLS 2257 - Supervised Clinical Experience II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Off campus supervised clinical experiences administered in conjunction with clinical faculty in WSU affiliated health care institutions. Offered CR/NC only. Co-Requisite: MLS 2256. Online students receive credit for clinical experience.

\*Acceptance into the MLS AAS Program required

## **MLS 2830 - Directed Reading**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Topics in Laboratory Medicine under the direction of departmental faculty advisor. May be repeated for a maximum of 6 hours. \*Acceptance into the MLS AAS Program required

## **MLS 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated twice for a maximum 3 credit hours. \*Acceptance into the MLS AAS Program required

## **MLS 3301 - Online Orientation for BS Degree**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course is designed to prepare the student for the online environment and specifics of the MLS program. Course components include: study and computer skills, learning styles, MLS student handbook, library tutorial, faculty introductions, contact and troubleshooting information, academic advisement, Power Point Presentations, an abbreviated overview of the core MLS disciplines such as hematology, clinical chemistry, clinical microbiology, clinical immunohematology, and a short referenced paper writing and using library resources tailor-made specifically for BS degree MLS students online.

## **MLS 3302 - Biostatistics, Research Methods, and Laboratory Practices**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Advanced theory to include laboratory instrument systems comparison, evaluation, and CLIA 88 validation procedures with emphasis on scientific research design and statistical analysis. Interrelated topics in the medical laboratory sciences to include educational strategies for laboratory personnel, approaches to work-load management, budgeting and marketing strategies for laboratory services. Students also learn about and evaluate the new diagnostic technology available to medical laboratories, as well as learning how to select, evaluate, design, perform, and document CLIA-88 acceptable validations studies on new chemistry instrumentation or analytical methods. Interrelated topics in the medical laboratory to include workload management, designing and implementing standards for quality assurance, budgeting laboratory operations, and investigative concepts related to new method and instrument evaluation, selection, and validation. \*\*Acceptance into the MLS BS Program required

### **MLS 3310 - Advanced Immunohematology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

Advanced blood banking theory and specialized procedures as they pertain to transfusion, quality assurance and regulatory issues pertaining to Transfusion Medicine.

### **MLS 3312 - Clinical Laboratory Immunology and Virology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

This course provides MLS students with clinical immunology theory and simulated laboratory experience necessary to prepare students for a career in a clinical laboratory setting. The course will be divided into four sections: basic concepts in immunology, clinical immunology techniques, immune related disease states, and diagnostic virology and will focus heavily on clinical immunology laboratory methods as well as in-depth clinical immunology techniques applicable for the clinical laboratory sciences student. Course requirements include acceptance into the MLS BS program.

### **MLS 3313 - Advanced Hematology and Hemostasis**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

Correlation of medical laboratory hematology and hemostasis with emphasis on hematopathology specialized procedures and hematological abnormalities in human cellular components. Routine and specialized coagulation procedures will also be used to detect hemorrhagic and thrombotic problems. \*\*Acceptance into the MLS BS Program required

### **MLS 3314 - Advanced Clinical Chemistry**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

This problem-solving oriented course presents the correlation of clinical chemistry test results to organ-related diseases, such as renal, hepatic, and endocrine diseases. The students will learn how to use clinical correlation as a quality assurance tool to detect patient testing errors. Students also learn about and evaluate the new diagnostic technology

available to medical laboratories, as well as learning how to select, evaluate, design, perform, and document CLIA-88 acceptable validation studies on new chemistry instrumentation or analytical methods. Interrelated topics in the medical laboratory to include workload management, designing and implementing standards for quality assurance, budgeting laboratory operations, and investigative concepts related to new method and instrument evaluation, selection, and validation. Additionally, Therapeutic Drug Monitoring and Toxicology studies are presented. Prerequisite: MLS 3302. \*\*Acceptance into the MLS BS Program required

### **MLS 3316 - Advanced Clinical Microbiology and Molecular Diagnostics**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

This course begins with a comprehensive review of introductory clinical bacteriology and mycology, along with a culture site approach to clinical bacteriology for the laboratory identification of pathogens by traditional manual methods. Diagnostic molecular biology of infectious microorganisms will also be covered and will include background of nucleic acid chemistry along with current molecular methodologies of detection. Pre/Co-requisite: MICR 3305 or MICR 3603. Prerequisite: MLS 2212 and MLS 2214. \*\*Acceptance into the MLS BS Program required

### **MLS 4409 - Clinical Correlation**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course will enable students to better integrate material from all the major medical laboratory science disciplines including Blood Bank, Chemistry, Hematology, Immunology, Microbiology, and Urinalysis. The case studies presented will also include information about the pathophysiology, etiology and epidemiology. Students will correlate results with disease states, and develop problem solving and critical thinking skills based on real scenarios. Students will also develop skills on how to write and present a case study of their own based on an assigned disease, which will include data gathered from all disciplines and will be presented to the class. Course requirements include acceptance into the MLS B.S. program.

### **MLS 4410 - Interdisciplinary Health Care Teams**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

**Summer (Full Sem Online)**

This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact, and learn in the interdisciplinary environment of a health care setting. Prerequisite: Course requirements include acceptance into the MLS BS program.

### **MLS 4411 - MLS Simulated Laboratory I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem Online]**

Foundational principles for establishing a simulated working laboratory in which students refine technical skills, problem

identification and solving, refine work-load management and decision-making skills, development of strategies for managing and implementing the rules and regulations that govern medical laboratory testing. Prerequisite/Co-requisite: MLS 3302. \*\*Acceptance into the MLS BS Program required

### **MLS 4412 - MLS Simulated Laboratory II**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A continuation of project-based applications set forth in MLS 4411. Students staff a simulated medical laboratory and assume responsibilities associated with all facets of laboratory operations. Clinical and academic faculty serve as advisors/managers to each team of students. The process develops team building skills critical to the modern health care setting. MLS 4411 expands to examine issues that cross all health care disciplines. Prerequisite: MLS 4411. \*\*Acceptance into the MLS BS Program required

### **MLS 4415 - Laboratory Teaching and Supervision I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

On Campus: Students will learn basic instructional and pedagogical theory as it applies to the field of medical laboratory science. Theory will be applied through collaborative learning and short presentations, as well as laboratory employee in-service training projects. Basic principles and applications of running a medical laboratory to include system approaches to management, leadership of groups, human resource management, and technical supervision will also be covered. Concepts will be reinforced through case study analysis and online discussions. Campus students will also participate as laboratory assistants in at least two lower division MLS courses, assisting the faculty in the administration of laboratory instruction, and applying instructional skills one-on-one with students entering the MLS program.

Online: Students fulfill the laboratory requirement by completing a series of management projects specifically designed for the laboratory provided in their clinical rotation. Prerequisite: \*\*Acceptance into the MLS BS Program required.

### **MLS 4453 - Supervised Clinical Experience I**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Off campus supervised clinical experiences administered in conjunction with clinical faculty in WSU affiliated health care institutions. Emphasis on experiences associated with laboratory administrative functions. Offered CR/NC only. Co-Requisite: MLS 4454. Online students receive credit for clinical experience. \*\*Acceptance into the MLS BS Program required

### **MLS 4454 - Supervised Clinical Experience II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Off campus supervised clinical experiences administered in conjunction with clinical faculty in WSU affiliated health care institutions. Emphasis on experiences associated with laboratory administrative functions. Offered CR/NC only. Co-Requisite: MLS 4453. Online students receive credit for clinical experience. \*\*Acceptance into the MLS BS Program required

### **MLS 4800 - Special Problems**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Prerequisite: Consent of instructor prior to registration. May be repeated twice for a maximum 3 credit hours.

\*\*Acceptance into the MLS BS Program required

### **MLS 4803 - Research Projects in Medical Laboratory Sciences I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

In this first of two courses, students will identify a significant laboratory related research question and develop an original research design to address that question. Students will work closely with faculty mentors and will prepare a grant application for funding of supplies and reagents, and write an IRB (Institutional Review Board) application. Actual research will be conducted spring semester in the course MLS 4804. Prerequisite/Co-requisite: Pre/Co-requisite: MLS 3302. \*\*Acceptance into the MLS BS Program required.

### **MLS 4804 - Research Projects in Medical Laboratory Sciences II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

This course is a continuation of MLS 4803, Research Projects in MLS I. Students will continue working on their original research project that was initiated fall semester. After completing the project, students will present their research findings in poster and oral formats, along with preparing a formal manuscript for publication in the university undergraduate research journal ERGO and possibly in other appropriate scientific journals. Prerequisite: MLS 4803.

\*\*Acceptance into the MLS BS Program required.

### **MLS 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Advance topics related to the correlation of medical laboratory data to disease processes. Students may work as a group or independently with academic or clinical faculty. Consent of instructor prior to registration. May be repeated twice for a maximum 3 credit hours.

\*\*Acceptance into the MLS BS Program required.

### **MLS 4850 - Study Abroad**

**Credits: (1-6)**

**Variable Title**

**Typically taught:**

**Check with Department**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated 5 times with a maximum 6 credit hours.

### **MLS 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated twice for a maximum 3 credit hours.

\*\*Acceptance into the MLS BS Program required.

### **MLS 5101 - Applications in Clinical Chemistry in Medical Laboratory Sciences**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

Concepts, methods and clinical correlation of clinical chemistry tests are presented. Emphasis is on testing methods and quality control practices covering carbohydrates, bilirubin, non-protein nitrogen, electrolytes, proteins, lipids, enzymes, therapeutic drug monitoring, toxicology, and endocrinology. These topics will include clinical correlation with diseases, allowing students to understand conditions in which abnormal results and or data might be obtained.

### **MLS 5102 - Clinical Applications in Hematology and Hemostasis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course covers the concepts, analytical methods, and clinical correlation of hematology and hemostasis as it applies to the medical laboratory. In addition to normal functions, the topics will include clinical correlation with various hematological and hemostatic disease processes. Current testing and instrumentation will be included as well as regulatory and competency information. Prerequisite: For medical laboratory personnel.

### **MLS 5103 - Clinical Laboratory Microbiology I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

This course provides an in-depth coverage of clinically significant pathogenic cocci and Gram negative rods, including epidemiology, pathogenicity, procedures for traditional laboratory identification. Prerequisite: For medical laboratory personnel.

## **MLS 5104 - Clinical Laboratory Microbiology II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online] not offered on Campus**

This course is a continuation of MLS 5103, including antimicrobial testing clinical mycology, virology, parasitology and miscellaneous clinical bacteria including Gram positive bacteria, mycobacteria, and anerobes. Prerequisite: MLS 5103; for medical laboratory personnel.

## **MLS 5105 - Clinical Immunohematology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem Online]**

**Summer [Full Sem Online]**

This course covers the theory and principles of immunohematology relevant to blood group serology, antibody detection and identification, compatibility testing, component preparation and therapy in blood transfusion service, quality control parameters, donor screening and phlebotomy, transfusion reactions and hemolytic disease of the newborn. This non-laboratory course is for MLS or MLT professionals who would like to update their didactic skills and knowledge in immunohematology as it is practiced in today's hospitals and clinics. Additionally, the course may also be of interest to individuals with a BS/BA degrees in non-medical laboratory science who wish to obtain current education in clinical immunohematology. Prerequisite: For medical laboratory personnel.

## **MPC 5080G - Intercultural Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Explores theoretical perspectives in intercultural communication. Through analysis of various intercultural theories, students will become aware of cultural influences on communication in both international and domestic cultures. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit.

## **MPC 5090G - Gender and Communication**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to help students understand the influence that communication has upon the shaping of gender and the influence that gender has in shaping communication interactions. Students become aware of, sensitive to, and more experienced in the issues, implications and skills necessary to successfully and meaningfully communicate with males and females, and about males and females in a wide range of communication contexts. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5100G - Small Group Facilitation and Leadership**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Theories and practical communication processes are examined and applied to develop fundamental attitudes and skills for facilitating and leading effective groups. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5220G - Editing**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

Develops editing knowledge and skills for print and online publications. Covers copy editing, content editing and page editing. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5440G - Public Relations Media and Campaigns**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Apply communication principles to internal and external publics; research, plan and evaluate social interrelationships; study of the controlled and uncontrolled media and their role in public relations; prepare a major public relations campaign for a selected client. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit.

### **MPC 5500G - Topics in Communication**

**Credits: (3)**

**variable title**

The study and application of communication in contemporary society is dynamic and ever changing. This course will provide students with opportunities to explore specialized topics in contemporary journalism, electronic mediated communication, human communication studies, and public relations in a seminar format. This course may be taken twice with different designations (topics). This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5550G - Organizational Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of communication organizations from various theoretical perspectives with an emphasis on the organizational culture perspective. Includes topics such as communicating with external audiences, decision-making, conflict resolution, and power relationships. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5650G - Communication Law**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

First Amendment origins, interpretations and philosophy underlying regulation of the mass media. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5820G - Persuasive Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Study of theories and principles of persuasion from classical to modern times. Examines persuasion as a means of influence in interpersonal communication, public speaking, advertising, politics, and other contexts. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 5850G - Advertising**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A practical and theoretical study of advertising. Course is designed for students planning careers in advertising, as well as for those who are simply lifelong consumers of advertising and want to understand its role in the economic system. This course may not apply toward graduate degree requirements if an undergraduate course of the same name or content has been used for undergraduate credit. Prerequisite: Permission of MPC program director.

### **MPC 6010 - Introduction to Graduate Study and Communication Theory**

**Credits: (3)**

This course provides a survey of major theoretical perspectives in the field of communication with an emphasis on how theory can be applied in interpersonal, group, organizational and mass communication contexts. Students also learn about the logic of communication inquiry, the nature and expectations of graduate study, and techniques for conducting literature searches and writing literature reviews.

### **MPC 6100 - Team Building and Facilitation**

**Credits: (3)**

Creating, facilitating and coaching effective work groups and teams is one of the hardest soft skills for organizational professionals to master. This course examines the impact that different structures and communication processes have on group and team collaboration effectiveness, as well as the central role competent communication plays in effective group and team facilitation. It investigates structural and process issues of team building, interpersonal and group communication, and effective problem solving and decision-making skills in collaborative environments. Students should have a greater understanding of their own collaborative teaming abilities upon completion. The purpose of this course is to teach-and have students experience-strategies and tactics for building, working effectively within, and facilitating collaborative teams in the work place. Prerequisite: MPC 6010 or permission of MPC program director.

## **MPC 6150 - Writing for Professional Communicators**

### **Credits: (3)**

Good writing skills are critical to achieving a professional image. Individuals and organizations are judged by the quality of written documents they produce. In this course, students learn to plan and organize, to write clearly, concisely and correctly, and to develop polished final projects. Students undergo an intensive review of basic writing and editing principles and then apply them to specific writing projects. Genres of writing may include funding proposals, yearly reports, executive plans, organizational descriptions, Web sites, social networking messages, and marketing materials.

## **MPC 6210 - Presentational Speaking in the Workplace**

### **Credits: (3)**

The professional work environment benefits from the communication competency of its members. This course is designed to enhance the communication skills required by the professional communicator across a broad set of communication media: oral presentations, written texts, and digital interactions. Primary emphasis will be placed on combining strategic thinking with powerful writing to produce a variety of effective messages aimed at different audiences. In addition, students will develop a broad-based understanding of how each of these modes of communications function both separately and interdependently to produce a coherent organizational message. Prerequisite: MPC 6010 or permission of MPC program director.

## **MPC 6250 - Interviewing**

### **Credits: (3)**

This course will explore various types of interviews conducted in work and personal situations: Recruiting, Performance Appraisals, Informational, Survey, Persuasion, Counseling, and Health Care. While core communication skills are important across types of interviews, interviewing strategies can differ greatly based on different contexts, specific situations, and personalities of interviewers and interviewees.

## **MPC 6300 - New Media in Professional Communication**

### **Credits: (3)**

New media allow all individuals and organizations to effectively interact with their audiences on an ongoing basis. This course addresses how new and emerging media technologies such as social networks, social media, blogs, podcasts, video sites, search engine management tools, and even virtual worlds can be leveraged by communication professionals in order to further meaningful relationships with their internal and external audiences. This course will give students greater understanding of new media required to allow a rethinking of the overall communication process. As a result students will develop effective communication strategies specifically geared toward the needs of their organization or field of interest. Prerequisite: MPC 6010 or permission of MPC program director.

## **MPC 6350 - Visual Communication in the Workplace**

### **Credits: (3)**

Visual messages are a powerful way to inform, persuade and educate. Within the workplace, the ability to effectively communicate goals, ideas and client information through combinations of visual and textual elements is an invaluable skill. This course introduces students to philosophical and theoretical perspectives that enable effective visual presentation in the organization. It also exposes them to practical design principles, skills and tactics that generally guide effective screen and print design. Additionally, students will learn how to critically analyze visual communication materials and aids according to standards that reflect sensitivity to fairness, diversity, good ethics and effectiveness.

## **MPC 6400 - Leadership Communication**

### **Credits: (3)**

Communication is the core of organizational leadership. This course is designed to explore both the theoretical and practical aspects of leader- and followership embedded in complex environments with an emphasis on recognizing and managing change. Leadership in organizations will be examined from a variety of perspectives including historical, ethical and critical. Key topics include leadership traits and skills, leadership roles and behaviors, power and influence,

theories of leadership, leading change, ethical leadership, and developing leadership skills. The course includes experiential activities using cases, role plays, and action learning projects to develop relevant skills. Prerequisite: MPC 6010 or permission of MPC program director.

### **MPC 6450 - Advanced Organizational Communication**

**Credits: (3)**

This course provides a graduate-level overview and introduction to the discipline of organizational communication in a global world. Class readings and discussions will include topics such as organizational structure/process, rationality and decision-making, (sub)cultures and socialization, individual and collective identities, networks, leadership, teams, power/control, conflict, change, technologies, and ethics. Case studies from current events and guest speakers will be used to apply theoretical concepts to actual organizational life.

### **MPC 6500 - Topics in Professional Communication**

**Credits: (3)**  
**variable title**

The study and application of professional communication in contemporary society is dynamic and ever changing. This course will provide students with opportunities to explore specialized topics in a seminar format. This course may be taken twice as elective credit with different titles and topics. Prerequisite: MPC 6010 or permission of MPC program director.

### **MPC 6600 - Strategic Communication**

**Credits: (3)**

Effective strategic communication and planning is essential to any organization. This course helps students to understand and develop skills to create and manage internal and external messages for different situations, industries, and locations. Students prepare for effective strategic communication by asking and answering the right questions about the goals of the organization, its members, stakeholders and others who impact its operation, such as regulatory bodies. Effective strategic communication and its planning consist of the optimal use of people, budgets, tactical elements, and media in a chaotic, changing world. Prerequisite: MPC 6010 or permission of MPC program director.

### **MPC 6620 - Conflict Resolution and Mediation**

**Credits: (3)**

Communication is at the center of any negotiation or mediation process. It is in and through communication that resolution becomes possible. This class will explore the key interpersonal skills that are central to managing the processes of conflict resolution and mediation competently.

### **MPC 6700 - Research Methods for Professional Communication**

**Credits: (3)**

Communication must be measured in order to evaluate its effectiveness, to refine and improve results, and to demonstrate value to an organization. This course reviews methods available to professional communicators to measure and evaluate research regarding the performance of a particular communication medium or an integrated communication campaign. Students receive instruction on commonly used professional research methodologies such as focus groups, surveys, usability studies and test-and-control methods to learn how to run studies on a "shoestring budget." For projects with research budgets, students learn what to look for when hiring a research firm and how to evaluate and implement the research findings. Prerequisite: MPC 6010 or permission of MPC program director.

### **MPC 6900 - Thesis/Project I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

In this course students will begin their theses or projects under the direction and with the support of their faculty committees. They will write, present and have their thesis or project proposal approved. Prerequisite: MPC 6010 or permission of MPC program director. *\*Please note that students who, for any reason, do not finish their thesis or project or program of courses within the two-year framework suggested in this program, must pay continuing enrollment and tuition the semester they defend their thesis or project.*

### **MPC 6950 - Thesis/Project II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will allow students to complete their workplace project or traditional academic thesis. Students will prepare, present and defend their projects or theses during this semester for review and approval. This course is repeatable for a total of two times for a total of nine credit hours of which only three will apply to degree completion. Prerequisite: MPC 6010 or permission of MPC program director. *\*Please note that students who, for any reason, do not finish their thesis or project within the two-year framework suggested in this program, must pay continuing enrollment and tuition the semester they defend their thesis or project.*

### **MSAT 6080 - Research Methods I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course explores the process and methods of scientific inquiry and interpretation of research findings in athletic training. Students will gain familiarity with the major elements of research including literature review, quantitative and qualitative methodology, design, evaluation of research, statistical analysis, presentation of data, and ethical considerations. This course also provides an overview of statistics including descriptive and inferential statistics and one-way ANOVA. Students should have a basic understanding of conducting library and Internet information searches prior to taking this course.

### **MSAT 6085 - Research Methods II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to help students develop a master's thesis research project proposal that is carefully researched and professionally written. Students will prepare an introduction, literature review, detailed methodology, and IRB proposal. Prerequisite: MSAT 6080.

### **MSAT 6090 - Research Methods III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to help students complete a master's thesis research project. Basic statistical analysis will be reviewed and advanced statistics will be introduced. Students will collect and analyze data and synthesize results. At the

completion of the course, students will submit a full manuscript, suitable for publication, along with an abstract and a professional poster. Prerequisite: MSAT 6085.

### **MSAT 6095 - Research Methods IV**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course allows students to choose one of the following options: 1) complete their masters thesis requirements from MSAT 6090; 2) prepare a manuscript for publication or formal oral presentation for a professional conference, or 3) participate in additional research above and beyond the masters thesis. May be taken twice up to 9 credit hours.

### **MSAT 6200 - Psychology of Sport, Injury & Rehabilitation**

**Credits: (3)**

**Typically taught:**

**Summer [2nd Blk]**

This course is designed to provide a basic understanding of the psychology of sport, injury, and rehabilitation. Topics covered include emotion, motivation, mental skills training and use, psychological antecedents of injury, psychology of injury and rehabilitation, using mental skills with injured athletes, career transition and termination, disabilities, rehabilitation/exercise adherence, eating disorders, alcohol and drug/substance abuse, gender and cultural diversity, and research methods related to psychology of sport, injury and rehabilitation. The graduate student will get an advanced approach, including in-depth application of psychological interventions with injured athletes and a more comprehensive investigation of psychosocial aspects. Prerequisite: PSY 1010.

### **MSAT 6300 - Orthopedic Assessment of Musculoskeletal Injuries: Lower Extremities**

**Credits: (3)**

**Typically taught:**

**Summer [2nd Blk]**

Content of this course addresses evaluation techniques and care for musculoskeletal injuries to the trunk and lower extremities for graduate-level athletic training students. The student must integrate knowledge of anatomical structures, physiology principles and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: ZOOL 2100.

### **MSAT 6301 - Orthopedic Assessment of Musculoskeletal Injuries: Upper Extremities**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Content of this course addresses evaluation techniques and care for musculoskeletal injuries to the head, face and upper extremities for graduate-level athletic training students. The student must integrate knowledge of anatomical structures, physiology principles and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: MSAT 6300.

## **MSAT 6350 - General Medical Conditions and Advances in Athletic Training**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Discusses general medical disorders and conditions pertaining to sports medicine and inquire into the latest research of related issues.

## **MSAT 6400 - Basic Therapeutic Modalities for Musculoskeletal Injuries**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Through lecture, discussion, and laboratory experience, the scientific basis of musculoskeletal rehabilitation involving therapeutic modalities will be examined. This course is designed to introduce students to the contemporary usage and basic foundation of therapeutic modalities, transmission of energy, infrared, and mechanical therapy. Two lecture and 2 lab hours per week. Prerequisite: MSAT 6300 and ZOOL 2200 or HTHS 1110 and HTHS 1111.

## **MSAT 6401 - Advanced Therapeutic Modalities for Musculoskeletal Injuries**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Through lecture, discussion, and laboratory experience, the scientific basis of musculoskeletal rehabilitation involving therapeutic modalities will be examined. This course is designed to build upon the basic foundations of therapeutic modalities established in MSAT 6400. Topics for discussion include the application of electrotherapy devices, ultrasound, light therapy, and short-wave diathermy. Two lecture and 2 lab hours per week. Prerequisite: MSAT 6400.

## **MSAT 6430 - Principles of Athletic Training**

**Credits: (3)**

This course is designed to give graduate-level athletic training students an overview of athletic training principles. Students will gain knowledge in the areas of musculoskeletal injuries, environmental risk factors, mechanisms and characteristics of sports trauma, and the cooperative sports medicine team. Prerequisite: HLTH 2300 or AT 2300.

## **MSAT 6431 - Orthopedic Taping, Casting, & Bracing**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to give graduate athletic training students a basic understanding of athletic training taping, wrapping, bracing, padding, casting, and splinting techniques. Students will also learn how to properly fit and safely remove athletic protective equipment. Students will apply a variety of techniques to support all areas of the body.

## **MSAT 6450 - Basic Rehabilitation of Musculoskeletal Injuries**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Content of this course provides basic understanding of therapeutic exercise as it relates to the rehabilitation process of

musculoskeletal injuries. Course provides basic concepts and hands-on techniques used in the rehabilitation of the athlete/patient from an injury state to a highly competitive state. Prerequisite: MSAT 6300 and MSAT 6301.

### **MSAT 6451 - Advanced Rehabilitation of Musculoskeletal Injuries**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Content of this course provides advanced understanding of therapeutic exercise as it relates to the rehabilitation process of musculoskeletal injuries. This course provides advanced instruction and hands-on techniques in the rehabilitation of an athlete/patient from an injury state to a highly competitive state. Prerequisite: MSAT 6450.

### **MSAT 6500 - Introduction to Graduate Athletic Training (First Semester)**

**Credits: (2)**

**Typically taught:**

**Summer [2nd Blk]**

Provides an opportunity for students to observe the function of an athletic training facility and become aware of the various duties performed by a Certified Athletic Trainer. Orients students to the graduate athletic training program.

### **MSAT 6501 - Graduate Practicum I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for graduate-level athletic training students to receive skill proficiency testing in the areas of taping, bracing, splinting; lower extremity evaluation, football equipment fitting and removal, and environmental illness. Prerequisite: MSAT 6500.

### **MSAT 6502 - Graduate Practicum II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Provides an opportunity for graduate-level athletic training students to receive skill proficiency testing in the areas of orthopedic assessment (upper extremity) and basic therapeutic modalities. Prerequisite: MSAT 6301, MSAT 6400, MSAT 6501.

### **MSAT 6503 - Graduate Practicum III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Provides an opportunity for graduate-level athletic training students to receive skill proficiency testing in the areas of emergency response, CPR/AED, basic therapeutic exercise, sport psychology, pharmacology, nutrition, and strength and conditioning. Prerequisite: MSAT 6200, MSAT 6450, MSAT 6502.

### **MSAT 6504 - Graduate Practicum IV**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Provides an opportunity for graduate-level athletic training students to receive skill proficiency testing in the areas of advanced therapeutic exercise, advanced therapeutic modalities, and general medical conditions and disabilities.

Prerequisite: MSAT 6503, MSAT 6401, MSAT 6451, MSAT 6350.

### **MSAT 6600 - Administration and Management in Athletic Training**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Provides an overview of the necessary policies, procedures, maintenance, and daily operation of athletic training facilities. Applies principles of facility design and planning, information management, legal and ethical considerations in health care, and professional development as it relates to athletic training. Prerequisite: MSAT 6502.

### **MSAT 6700 - Advanced Diagnostic Imaging for the Athletic Training Profession**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This course provides an opportunity for students to gain exposure to the diagnostic imaging techniques commonly used by the medical community in diagnosis of injury in the athlete. Upon completion of the course, students will be able to identify anatomy and understand terminology used by health professionals when discussing diagnostic images and have an advanced understanding of indications, contraindications, and clinical implications. Prerequisite: MSAT 6350.

### **MSAT 6750 - Evidence-Based Evaluation and Treatment of the SI Joint and Spine**

**Credits: (2)**

**Typically taught:**

**Spring [1st Blk]**

This course will focus on evidence-based evaluation and management of the spine and pelvis, including the cervical spine, thoracic spine, lumbar spine and the sacroiliac joints. The student must integrate anatomical structures, physiology principles, and evaluative techniques to provide a basis for critical decision-making and management for these pathologies. Prerequisite: MSAT 6300, MSAT 6301.

### **MSAT 6998 - Master's Board of Certification (BOC) Exam Preparation**

**Credits: (1)**

This course prepares Graduate Athletic Training students to take the Athletic Trainer Board of Certification (BOC) Exam. This course will review content from all courses in the Master of Science in Athletic Training program as well as content from the program's prerequisite courses. Prerequisite: MSAT 6450. May be repeated 2 times up to 3 credit hours.

### **MSAT 6999 - Critical Thinking for Musculoskeletal Injury Management**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Content of this course addresses evaluation techniques, rehabilitation processes and return to play guidelines for specific

orthopedic injuries to the upper and lower extremities. The student must integrate anatomical structures, physiology principles, rehabilitation principles, and evaluative techniques to provide a basis for critical decision-making and care in a musculoskeletal injury management environment. Prerequisite: MSAT 6401 and MSAT 6451.

### **MSE 1210 - Metal Processing and Joining for Engineers**

**Credits: (3)**

**Typically taught:**

**Fall [Full sem]**

**Spring [Full Sem]**

Manufacturing processes for cost-effective, high-quality production. Consideration of technical capabilities and limitations of alternative methods. Includes Metal Removal, forming, welding concepts and non-tradition manufacturing processes. Course project required. Laboratory experiments include mill and lathe work, welding techniques, friction coefficients analysis and milled surface evaluation.

### **MSE 3040 - Cost Estimating and Engineering Economic Analysis**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course focuses on effective design and implementation of reliable, economically competitive, and environmentally benign manufacturing processes and systems. Topics will include an overview of the manufacturing systems approach in production, control, quality, automation, an introduction to facilities planning and design, an introduction to operations research and simulation in manufacturing, and engineering economics. An introduction to government manufacturing systems engineering will also be presented. Prerequisite: MATH 1210, MSE 3700.

### **MSE 3360 - Manufacturing Process and Materials Lab**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Manufacturing processes for cost-effective, high-quality production. Consideration of technical capabilities and limitations of alternative methods. Includes forming, removal, casting, joining, heat treating, molding, finishing and coating. Course project required. Laboratory experiments include heat treating, deep drawing, powder metallurgy, casting, injection molding, fabricating composites, friction coefficients analysis and milled surface evaluation. Prerequisite: ENGR 2010, ENGR 2160.

### **MSE 3460 - Product Design and Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An advanced computer-aided design course using state-of-the-art solid modeling CAD/CAM software. Topics include: 3D parametric solid modeling, applications associativity, design-by- feature, assembly modeling, injection mold design, flat pattern development, design analysis using FEA, realistic rendering, and detailing. Prerequisite: ENGR 1000, DET 1160.

## **MSE 3700 - Manufacturing Systems I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course focuses on effective design and implementation of reliable, economically competitive, and environmentally benign manufacturing processes and systems. Topics will include an overview of the manufacturing systems approach in production, control, quality, automation, an introduction to facilities planning and design, an introduction to operations research and simulation in manufacturing, and engineering economics. Students will also be introduced to DoD systems engineering terminology. Prerequisite: MFET 2320.

## **MSE 3710 - Computer Aided Manufacturing and Additive Manufacturing/Lab**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course will introduce and explain concepts behind Computer-Automated Manufacturing (CAM). It will define elements, terms, and concepts involved with CAM. Elements of rapid prototyping will also be covered from conceptual design in solids to production of tooling and parts. This course is designed for those who have the basic understanding of the setup and operation of CNC machine tools and programming. Software will be used to perform the CAM operations, such as part generation and post processing. Prerequisite: MSE 1210, DET 1010, DET 1160 or MSE 3460.

## **MSE 3850 - Statistical Process Control and Reliability**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Control of quality with statistical analysis; typical control techniques and underlying theory. Development of reliability models and procedures for product assurance. Course will utilize Minitab and Microsoft Excel Spreadsheet software. Prerequisite: MFET 2410 or MATH 1040 or MATH 3410.

## **MSE 3910 - Six Sigma Methods and Tools in Manufacturing**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Six Sigma methods use statistical tools to bring about continual improvement of quality in manufactured goods and services and to document that positive change has occurred. These tools include Failure Mode and Effects Analysis (FMEA), Measurement Systems Analysis (gage R&R), Control Charts, Process Capability Analysis, and Design of Experiments. Students will learn and apply these methods and tools through class participation and completion of required projects. Course will utilize Minitab and Microsoft Excel spreadsheet software. Prerequisite: MSE 3850 or MFET 3810.

## **MSE 4010 - Facility Design and Material Handling**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

In-depth concepts in the planning and design of manufacturing facilities, product analysis, manufacturing processes and

equipment selection, and schedule design; flow, space, activity relationships and space planning; location and layout; material handling systems; and facilities planning models. Prerequisite: MSE 3360, MSE 3460.

### **MSE 4590 - Lean Manufacturing Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course addresses the organization, design, and management of production systems using lean manufacturing techniques. Topics include work standardization, visual manufacturing, workplace organization, poke-yoke methodology, value stream mapping, setup reduction, batch size reduction, kaizen, total productive maintenance, pull systems/kanbans, cellular manufacturing design concepts, & cellular plant layout concepts. Prerequisite: MFET 2320.

### **MSE 4600 - Production Systems Modeling and Analysis/Lab**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Design and analysis of production systems. Fixed, flexible, and programmable automation. Modeling and simulation of alternative production systems in conjunction with the systems-design process. Prerequisite: MSE 3460, MSE 3700.

### **MSE 4610 - Project Management for Engineers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is focused on teaching methods and tools for planning and managing complex product and system development projects. The class will focus on the preparation, planning, monitoring and adaptation of projects. The class is organized into five loosely interwoven modules; project planning and simulation techniques, case studies, project tracking, international projects, and project management resources. Prerequisite: MSE 3040, MSE 3460. Co-Requisite: MSE 4615.

### **MSE 4615 - Lab: Senior Project Design I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This is an engineering laboratory subject for manufacturing systems engineering seniors. Major emphasis is on interplay between analytical and experimental methods in solution of research and development problems. Communication (written and oral) of results is also a strong component of the course. Groups of three or more students work together for two terms on an assigned engineering and design project. Must be taken concurrent with MSE 4610 Project Management for Engineers. Co-Requisite: MSE 4610.

### **MSE 4620 - Lab: Senior Project Design II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Continuation of MSE 4615. Team assignments will lead to the construction, testing and optimization of the design. This includes detailed engineering analysis and testing of prototypes, final parameter and tolerance design, and economic analysis of the project. Senior Project II culminates in a final design review based on formal student presentations of the documented final product and verification that the final product meets all requirements. Prerequisite: MSE 4610, MSE 4615.

### **MSE 4700 - Manufacturing Systems Engineering II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the following topics: models of manufacturing systems, including transfer lines and flexible manufacturing systems; calculation of performance measures, including throughput, in-process inventory, and meeting production commitments; real-time control of scheduling; effects of machine failure, set-ups, and other disruptions on system performance. Also A study of the elements used in the automation of manufacturing processes including: programmable logic controllers, robotics (servo and non-servo), vision systems, and material handling devices. Prerequisite: MSE 3040, MSE 3700.

### **MSE 4800 - Individual Research Problems**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

With permission and under the direction of faculty, the student researches a specific problem in the manufacturing systems engineering field. May be taken 3 times and up to 3 credits. Prerequisite: Permission of department.

### **MSE 4830 - Directed Readings for Manufacturing Systems Engineering**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

With permission and under the direction of faculty, the student studies a topic taken from the mechanical engineering literature. May be taken 3 times and up to 3 credits. Prerequisite: Permission of department.

### **MSE 4890 - Cooperative Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides academic credit for engineering work experience. Permission of department required. May be taken 3 times and up to 3 credits. Prerequisite: Permission of department.

### **MSE 4900 - Special Topics**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A special topic in manufacturing systems engineering is selected by the faculty to be taught on a one-time basis. With departmental approval, may substitute for a technical elective. Prerequisite: Permission of department.

### **MSE 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A special topic in manufacturing systems engineering is selected by the faculty to be taught on a one-time basis. With departmental approval, may substitute for a technical elective. Prerequisite: Permission of department.

### **MSN 6110 - Translating Research and Evidence into Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

This course prepares the student to critically appraise, compare, and evaluate published Quantitative and Qualitative research reports to develop and implement and maintain an evidence-based innovation and/or practice within the professional settings of the nurse administrator and the nurse educator. In order to register for this course, the student must be officially accepted into Weber State Universities MSN program. Prerequisite/Co-requisite: Upper division English advanced writing.

### **MSN 6120 - Research and Statistics**

**Credits: (3)**

This course focuses on the development of the knowledge and skill required to evaluate numerical data in support of an evidence-based environment for nursing administration and nursing education. Skills related to utilization of parametric and non-parametric methods of statistical analysis of quantitative data will be emphasized. Prerequisite: MSN 6110, MSN 6141, MSN 6180. Co-Requisite: MSN 6160 or permission of instructor.

### **MSN 6130 - Theoretical Foundations of Nursing Practice**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem, Full Sem Online]**

This course introduces the student to processes associated with the development and application of both nursing and non-nursing theory. These processes include the varied yet interdependent activities of theory analysis, description, critical reflection, and utilization of theory. In addition, the student will explore the utilization of both nursing and non-nursing theory in his or her practice of nursing. Prerequisite: , MSN 6120, MSN 6180. The student must be officially accepted into the MSN program and have completed the first semester of study prior to registering for MSN 6130.

### **MSN 6141 - Advanced Nursing Theory**

**Credits: (3)**

This course is intended to introduce the student to the multiple patterns of knowing within nursing and the processes

associated with the development of nursing knowledge and theory. These processes include the varied yet interdependent activities of critical reflection, validation, confirmation, and utilization of nursing knowledge. In addition, the student will explore the utilization of nursing theory and knowledge to his or her own experiences and everyday nursing practice. Co-Requisite: MSN 6110, MSN 6180.

### **MSN 6160 - Evidence-Based Practice**

#### **Credits: (3)**

This course provides students the knowledge and skill required to develop and implement evidence-based processes within the professional settings of the nurse administrator and the nurse educator. Prerequisite: MSN 6110, MSN 6141, MSN 6180. Co-Requisite: MSN 6120.

### **MSN 6170 - Teaching Strategies**

#### **Credits: (3)**

#### **Typically taught:**

**Spring [Full Sem, Full Sem Online]**

This course prepares the student to apply teaching and learning theories within both the traditional and non-traditional classroom setting and clinical practice settings. Teaching strategies designed to support student learning across varied settings and modalities will be emphasized. Prerequisite: MSN 6520 and MSN 6540. The student must be officially accepted into the MSN program prior to registering for MSN 6170.

### **MSN 6180 - Improving Patient Care and Nursing Practice through Information Systems**

#### **Credits: (3)**

This course provides students the knowledge and skill required to effectively apply the principles of information technology within the healthcare setting. Course content includes the utilization of information technology to analyze healthcare data for the improvement of nursing decision-making and to support quality in nursing administration and nursing education settings. Co-Requisite: MSN 6110, MSN 6141.

### **MSN 6200 - Theoretical Foundations of Nursing Administration**

#### **Credits: (3)**

This course focuses upon the knowledge and skills required to utilize established theoretical and concepts frameworks to critically analyze clinical and non-clinical leadership issues and apply theory-based principles within the nursing administration setting. Prerequisite: MSN 6110, MSN 6141, MSN 6180.

### **MSN 6255 - Leadership and Accountability in Advanced Nursing**

#### **Credits: (3)**

#### **Typically taught:**

**Fall [Full Sem Online]**

Master's prepared nurses are valued members and leaders of healthcare teams and are employed in a variety of settings. The purpose of this course is to provide graduate nursing students with an overview of personal, organizational and systems leadership. At the conclusion of this course, students will be able to apply leadership skills and ethical decision making as it relates to healthcare policy, legal regulation, quality improvement and patient safety. The student must be officially accepted into the MSN program and have completed the first semester of study prior to registering for MSN 6255. Prerequisite/Co-requisite: Upper division English Advanced Writing Course.

### **MSN 6300 - Quality Improvement, Patient Safety and Risk Issues in Patient Care Delivery**

#### **Credits: (3)**

This course focuses upon the nurse administrator's responsibility to develop and maintain a culture of safety, reduce and prevent harm to patients, and reduce institutional risk and liability issues through the utilization of healthcare outcomes

measurement and application of sound principles and practices associated with quality improvement. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6200, MSN 6324, MSN 6340, MSN 6360. Co-Requisite: MSN 6380, MSN 6400.

### **MSN 6324 - Financial Issues in Nursing Administration**

#### **Credits: (3)**

This course provides a conceptual foundation for the nurse administrator's accountability to provide fiscal resource planning, forecasting and resource allocation, strategic planning that addresses future trends, oversight of all nursing related operating aspects, and the achievement of the financial goals of the healthcare organization. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6200. Co-Requisite: MSN 6340, MSN 6360.

### **MSN 6340 - Compliance with Legal and Regulatory Systems in Patient Care Delivery**

#### **Credits: (3)**

This course focuses upon the nurse administrator's responsibility to develop and maintain a healthcare environment that fulfills the compliance standards and criteria established by both state and national legal and regulatory systems. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6200. Co-Requisite: MSN 6324, MSN 6360.

### **MSN 6360 - Scope and Practice of Nursing Administration**

#### **Credits: (3)**

This course addresses the nurse administrator's responsibility for the overall administration of patient care delivery services and representation of nursing services at the highest level of the organization and across a wide variety of settings. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6200. Co-Requisite: MSN 6324, MSN 6340.

### **MSN 6380 - Retaining and Developing a Competent Workforce in Nursing**

#### **Credits: (3)**

This course addresses the overall operational management and administration functions related to staffing, staff development, and managerial issues including coaching, discipline and employee support. Processes related to labor relations within healthcare is addressed. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6200, MSN 6324, MSN 6340, MSN 6360. Co-Requisite: MSN 6300, MSN 6400.

### **MSN 6400 - Nurse Executive Residency**

#### **Credits: (2)**

**Typically taught:**  
**Fall [Full Sem]**

This 85 hour on-site practicum is designed to prepare the student for a career in nursing administration and leadership. The student will participate in focused participative learning activities with nurse leaders at either the executive, director or manager level. A variety of focused nursing administrator residency areas will be available. The student, faculty, and assigned nurse administrator residency preceptor will collaboratively design the residency experience. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6200, MSN 6324, MSN 6340, MSN 6360. Co-Requisite: MSN 6300, MSN 6380.

### **MSN 6500 - Theoretical Foundations in Nursing Education**

#### **Credits: (3)**

This course focuses upon the knowledge and skills required to utilize established teaching and learning theories developed to enhance the nursing educational process. The practical utility of these teaching and learning theories in diverse nursing education learning environments will be emphasized. Prerequisite: MSN 6110, MSN 6141, MSN 6180.

### **MSN 6520 - Curriculum Development for Nursing Educators**

**Credits: (3)**

This course focuses on the concepts and organizing frameworks for curriculum design, course development and desired outcomes, standards of nursing education and practice, continuing education, and health care educational programs. . Issues related to program accreditation and related social and legal issues will be examined. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6500. Co-Requisite: MSN 6540, MSN 6560.

### **MSN 6540 - Measurement of Competence and Outcomes in Nursing Education**

**Credits: (3)**

This course focuses upon established theories of measurement and evaluation coupled with strategies for implementing evaluation of student learning, program outcomes, and faculty performance targets. Accurate interpretation of evaluation data to support an evidence-based response to student and program evaluation results will be emphasized. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6500. Co-Requisite: MSN 6520, MSN 6560.

### **MSN 6560 - Socialization in the Role of Nursing Educator**

**Credits: (3)**

This course prepares the student to function proficiently in the nurse educator role within a variety of learning environments and social settings. The development of professional and personal adaptive strategies will be emphasized. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6500. Co-Requisite: MSN 6520, MSN 6540.

### **MSN 6580 - Clinical Nursing Instruction in Higher Education and Community Settings**

**Credits: (3)**

This course prepares the student to apply teaching and learning theories within the practice laboratory and clinical settings. The clinical application component of this course will provide the student the opportunity to participate, with supervision, in a practice laboratory and/or clinical instruction environment. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6520, MSN 6540, MSN 6560. Co-Requisite: MSN 6600, MSN 6700.

### **MSN 6600 - Nursing Instruction in Higher Education and Community Settings**

**Credits: (3)**

This course prepares the student to apply teaching and learning theories within both the traditional and non-traditional classroom setting. Teaching strategies designed to support student learning across varied settings and modalities will be emphasized. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6500, MSN 6520, MSN 6540, MSN 6560. Co-Requisite: MSN 6580, MSN 6700.

### **MSN 6700 - Nurse Educator Residency**

**Credits: (2)**

**Typically taught:**  
**Fall [Full Sem]**

This on-site 85 hour practicum is designed to prepare the student for a career in nursing education and leadership. During the MSN Educator Residency, students will participate in focused participative learning activities with advanced prepared nurse educators at an academic and/or healthcare service educational setting. A variety of nurse educator residency areas will be available. The student, faculty, and assigned nurse educator residency preceptor will collaboratively design the residency experience. Prerequisite: MSN 6110, MSN 6120, MSN 6141, MSN 6160, MSN 6180, MSN 6500, MSN 6520, MSN 6540, MSN 6560. Co-Requisite: MSN 6580, MSN 6600.

## **MSN 6710 - Advanced Health Assessment for the Nurse Educator**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem Online]**

This course lays the groundwork for students to perform comprehensive and holistic health histories, review of systems, and physical examinations for patients. The overall purpose will be focused upon developing strategies and skills to assess the health care needs of people across the life span. Students are challenged to identify normal assessment findings and critically analyze variations from normal and apply that knowledge for health education. The student must be officially accepted into the MSN program and have completed the first semester of study prior to registering for MSN 6710.

## **MSN 6720 - Advanced Pharmacology for the Nurse Educator**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course overviews pharmacokinetics and pharmacodynamics for optimum individual client management. Advanced practice nursing students are prepared to safely monitor medication regimens for patients across the lifespan based on clinically relevant ethical and legal parameters and consideration of evidenced based practice guidelines and protocols for effective pharmacology management and education. The student must be officially accepted into the MSN program and have completed the first semester of study prior to registering for MSN 6720. Prerequisite: Faculty permission.

## **MSN 6730 - Advanced Pathophysiology for the Nurse Educator**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem Online]**

This course is a core graduate level course. This course is designed to teach the master level nursing student frequently seen alterations in physiology. The course will focus on modifiable risk factors, exposures, physiological mutations, and presenting signs and symptoms. Students will utilize evidence-based practice and research to identify, analyze and evaluate disease pathology across the lifespan. The student must be officially accepted into the MSN program and have completed the first semester of study prior to registering for MSN 6730.

## **MSN 6801 - Integrating Scholarship into Practice**

**Credits: (2)**

The MSN 6801 course is designed as a foundational course to prepare graduates to be information literate and to practice from an evidence-based approach in their direct and indirect advanced nursing roles. In addition, students will begin the compilation of a scholarly paper through identification of a problem in practice and that reflects reflect educational theory, interprofessional collaboration, research, and current standards of practice. In this course students will be asked to critically appraise research and evidence summaries related to area of practice and apply it to their practice problem. Completion of 6801 and the MSN Scholarly Project is a graduation requirement for the Master of Science in nursing degree. Prerequisite: MSN 6110 and MSN 6120.

## **MSN 6802 - Integrating Scholarship into Practice**

**Credits: (1)**

The MSN6802 course is designed as a continuation of MSN 6801. In this course, students will design scholarly activities in an established area of expertise. Students will be asked to develop a project deliverable which demonstrates skill in proposal writing for initiatives that include, but are not limited to evidence-based practice, clinical guidelines, resource acquisition, course development, and policy development. Completion of 6802 and the MSN Scholarly Project is a graduation requirement for the Master of Science in nursing degree. Prerequisite: MSN 6110 and MSN 6120.

### **MSN 6803 - Integrating Scholarship into Practice**

**Credits: (1)**

The MSN 6803 course is designed as a continuation of MSN 6802. In this course, students will integrated all components of their scholarly project and develop strategies for dissemination of nursing knowledge to a variety of audiences through various means. Completion of 6803 and the MSN Scholarly Project is a graduation requirement for the Master of Science in nursing degree. Prerequisite: MSN 6110 and MSN 6120.

### **MSN 6850 - MSN Project Development and Implementation Extension Course**

**Credits: (1)**

For students who have completed all course requirements for MSN, but have not completed the MSN project requirement. Students must register for a minimum of 1 credit of MSN 6850 to remain enrolled in the MSN program. Prerequisite: Faculty approval. May be repeated two (2) times with a maximum of 2 credit hours.

### **MSN 6900 - Social Epidemiology, Global Health Issues and Cultural Competency**

**Credits: (3)**

**Typically taught:**

**This course is not currently offered**

### **MSN 6920 - Evidence Based Practice II**

**Credits: (3)**

**Typically taught:**

**This course is not currently offered**

### **MSNP 6205 - Transitions to Advanced Practice**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to present a foundation for understanding nursing theory and the relationship of theory and research to evidence based practice and conceptual models of advanced practice nursing. Prerequisite: Admission to a MSN Family Nurse Practitioner Program.

### **MSNP 6210 - Advanced Pathophysiology**

**Credits: (3)**

**Typically taught:**

**Fall (Full Sem)**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is a core graduate level course. This course is designed to teach the master level nursing and nurse practitioner student frequently seen alterations in physiology. The course will focus on modifiable risk factors, exposures, physiological mutations, and presenting signs and symptoms. Students will utilize evidence-based practice and research

to identify, analyze and evaluate disease pathology across the lifespan. Prerequisite: Faculty permission. Co-Requisite: MSNP 6215.

### **MSNP 6215 - Advanced Pharmacology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course presents the pharmacokinetics and pharmacodynamics of medication management. Nurse practitioner students are prepared to safely prescribe and monitor medication regimens for patients across the lifespan. The course will include ethical and legal parameters surrounding prescriptive practice. This course meets the basic accreditation criteria for graduate nursing pharmacology. Prerequisite: Faculty permission. Co-Requisite: MSNP 6210.

### **MSNP 6220 - Physical Assessment & Diagnostic Reasoning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This assessment lecture and skills practicum lab course lays the groundwork for the transition of the student to the primary care role of the nurse practitioner (NP). The nurse practitioner student is taught to perform a comprehensive holistic health history, a complete review of systems, and an advanced physical examination for patients across the lifespan with a focus on development of critical thinking skills. Basic primary care diagnostic reasoning is addressed related to promotion of health and wellness, differential diagnoses, and potential interventions and educational plans. Demonstration and discussion in the nursing practice lab utilize appropriate assessment practice equipment and/or technology in presenting and practicing assessment and diagnostic reasoning relevant to the role of the NP. Prerequisite: Faculty permission.

### **MSNP 6225 - Primary Care Skills Practicum I**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This laboratory course provides opportunities for the nurse practitioner student to learn and practice ambulatory care skills used to diagnose and manage adult health care issues. Prerequisite: MSNP 6220 - Physical Assessment & Diagnostic Reasoning.

### **MSNP 6230 - Primary Care Skills Practicum II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

The laboratory course provides opportunities for the nurse practitioner students to learn and practice ambulatory care skills used to diagnose and manage specific women's health and pediatric health care issues. Prerequisite: MSNP 6220 - Physical Assessment & Diagnostic Reasoning and MSNP 6225 - Primary Care Skills Practicum I. Co-Requisite: MSNP 6245 - Advanced Practice Nursing: Newborn - Adolescent, MSNP 6246 - Advanced Practice Primary Care Clinical III.

### **MSNP 6235 - Advanced Practice Nursing: Adult**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

This is the theory companion course to MSNP 6236 Advanced Practice Nursing Clinical: Adult. This course is designed to provide advanced theoretical knowledge and emphasis on adult healthcare for the nurse practitioner student. The course will prepare the student to manage prevalent healthcare concerns encountered across the lifespan of an adult. The course will also focus on the inclusion of families in patient health promotion, assessment, intervention, follow-up and evaluation of adults in healthcare. Co-Requisite: MSNP 6236 - Advanced Practice Primary Care Clinical I.

### **MSNP 6236 - Advanced Practice Primary Care Clinical I**

**Credits: (3)**

**Typically taught:**

**Summer [Fall Sem]**

This is the clinical companion course to MSNP 6236 Advanced Practice Nursing: Adult. This course is designed for the nurse practitioner student to deliver high quality healthcare to adults. The course prepares students to apply acquired skills, magnify diagnostic reasoning through psychomotor, affective and cognitive domains. This course also requires students to diagnose and determine best practice to treat illness and prevent disease. Co-Requisite: MSNP 6235 - Advanced Practice Nursing: Adult.

### **MSNP 6240 - Advanced Practice Nursing: Older Adult**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

This is the theory companion course to MSNP 6241 Advanced Practice Nursing Clinical: Adult & Older Adult. This course is designed to provide advanced theoretical knowledge and emphasis on older adult healthcare for the nurse practitioner student. The course will prepare the student to manage prevalent healthcare concerns for older adults in the community and a variety of health care settings. The course will also focus on the various health issues for older adults, including health promotion, functional ability, chronic disease management, polypharmacy, palliative intervention, and end-of-life care. Co-Requisite: MSNP 6241 - Advanced Practice Primary Care Clinical II.

### **MSNP 6241 - Advanced Practice Primary Care Clinical II**

**Credits: (1)**

**Typically taught:**

**Summer [Full Sem]**

This is the clinical companion course to MSN 6240 Advanced Practice Nursing: Older Adult Health. This clinical course is designed for the nurse practitioner student to deliver high quality healthcare with a focus on adults or older adults. The course prepares students to apply acquired skills, magnify diagnostic reasoning through psychomotor, affective and cognitive domains. This course requires students to diagnose and determine best practice to treat illness and prevent disease as a primary care FNP provider. Co-Requisite: MSNP 6240 - Advanced Practice Nursing: Older Adult.

### **MSNP 6245 - Advanced Practice Nursing: Newborn - Adolescent**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This is the theory companion course to MSNP 6246 Advanced Practice Nursing Clinical: Newborn-Adolescent. This

course is designed to provide advanced theoretical knowledge centered on the unique health care needs of newborns, pediatrics, adolescents and families specific to the nurse practitioner role. The course will prepare students to manage health concerns across the pediatric lifespan associated with genetics, development and development stages. The course will focus on health promotion and disease prevention across the lifespans of the newborn, pediatric and adolescent, as well as the management of associated family. Co-Requisite: MSNP 6246 - Advanced Practice Primary Care Clinical III.

### **MSNP 6246 - Advanced Practice Primary Care Clinical III**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This is the clinical companion course to MSNP 6245 Advanced Practice Nursing: Newborn - Adolescent. This course is designed for the nurse practitioner student to deliver high quality healthcare to children and adolescents. The course prepares students to apply acquired skills, magnify diagnostic reasoning through psychomotor, affective and cognitive domains. This course also requires students to diagnose and determine best practice to treat illness and prevent disease. Co-Requisite: MSNP 6245 - Advanced Practice Nursing: Newborn - Adolescent.

### **MSNP 6250 - Advanced Practice Nursing: Women's Health**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This is the theory companion course to MSNP 6251 Advanced Practice Nursing Clinical: Women's Health. This course is designed to prepare the nurse practitioner student to gain knowledge centered on the unique health care needs of women. The course will prepare students to manage prevalent health care concerns of women, including; maturation, sexuality, family planning, contraception, perinatal care (preconception through pregnancy), and menopause. Concepts will focus on strategies for health promotion and disease prevention through the lifespan of a woman, as well as management of selected issues related to fertility, pregnancy, and aging. Co-Requisite: MSNP 6251 - Advanced Practice Primary Care Clinical IV.

### **MSNP 6251 - Advanced Practice Primary Care Clinical IV**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

This is the clinical companion course to MSNP 6250 Advanced Practice Nursing: Women's Health. This clinical course is designed for the nurse practitioner student to deliver high quality healthcare with a focus on women's health. The course prepares students to apply acquired skills, magnify diagnostic reasoning through psychomotor, affective and cognitive domains. This course requires students to diagnose and determine best practice to treat illness and prevent disease as a primary care FNP provider. Co-Requisite: MSNP 6250 - Advanced Practice Nursing: Women's Health.

### **MSNP 6255 - Transition to Advanced Practice II**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to complement MSNP 6260 Advanced Practice Nursing Clinical Practicum in preparing the family practice nursing student for the certification examination and the advanced practice role. The course allow students to investigate a variety of topics that impact advanced practice nursing, issues for special populations, leadership competencies, impact of policies on healthcare, and principles of independent or NP managed practices. Prerequisite: MSNP 6205 - Transitions to Advanced Practice. Co-Requisite: MSNP 6260 - Advanced Practice Nursing Clinical Practicum.

## **MSNP 6260 - Advanced Practice Nursing Clinical Practicum**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This is the final clinical course of the FNP Program. This course is designed for the nurse practitioner student to evaluate individual and system effectiveness in delivery of quality healthcare to patients across the lifespan. The course evaluates the student's ability to apply acquired skills, magnify diagnostic reasoning through psychomotor, affective and cognitive domains. This course also evaluates the student's ability to diagnose and determine best practice to treat illness and prevent disease. Prerequisite: MSNP 6236 - Advanced Practice Primary Care Clinical I, MSNP 6241 - Advanced Practice Primary Care Clinical II, MSNP 6246 - Advanced Practice Primary Care Clinical III, MSNP 6251 - Advanced Practice Primary Care Clinical IV.

## **MSRS 6100 - Research Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course assists students to critique, evaluate, and use research within their health science education careers. The research process including the theoretical/conceptual basis of health sciences research, methods, and critique strategies are examined in detail. There is a focus on evaluation of published research reports to evaluate the appropriateness of application of findings to clinical practice. This course is cross-listed with MSN 6110.

## **MSRS 6120 - Research and Statistics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course focuses on the development of research skills used to evaluate data in support of the utilization of findings in clinical practice. Skills related to statistical analysis of quantitative data will be emphasized. Parametric and non-parametric methods of statistical analysis will be discussed. This course is cross-listed with MSN 6120.

## **MSRS 6130 - Functional Hemodynamics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course offers the fundamental principles and indications for invasive hemodynamic monitoring. The indications, possible contraindications and possible complications involved with the insertion of central Venous lines, arterial lines, Pulmonary artery catheters and ICP monitoring with the expected CVP, RV, PAP, PCWP, CO and CI reading, waveforms and troubleshooting.

## **MSRS 6140 - Clinical Laboratory Correlation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course covers the concepts, analytical methods and clinical correlation of laboratory values as they relate to radiographic imaging, pathology and patient history.

### **MSRS 6200 - Health Behavior and Managerial Epidemiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The course addresses the integration of epidemiology into strategic planning and managerial decision-making in health services organizations. Epidemiological principles and tools of investigation from clinical and managerial perspectives are addressed. Course work includes environmental analysis of health behaviors and lifestyle that impact demand on health care delivery systems. The student will evaluate models for integration of health services, preventive programs, demand management, and policy issues affecting continuity of care. This course is cross-listed with MHA 6000.

### **MSRS 6403 - Evaluation of the Osseous System**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Imaging evaluation of pathological conditions, abnormalities and anomalies of the osseous system.

### **MSRS 6413 - Evaluation of the Chest**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Imaging evaluation of pathological conditions, abnormalities and anomalies of the chest.

### **MSRS 6423 - Evaluation of the Abdomen and G I System**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Imaging evaluation of pathological conditions, abnormalities and anomalies of the abdomen and gastrointestinal system.

### **MSRS 6433 - Evaluation of the Genitourinary System**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Imaging evaluation of pathological conditions, abnormalities and anomalies of the genitourinary system.

### **MSRS 6443 - Clinical Pathways**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Studying clinical pathways for patients based on disease processes and trauma.

### **MSRS 6450 - Managing Health Information**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introductory course that provides basic vocabulary and principles of modern information architectures. Computer networking and communication technologies needed to support modern information infrastructures. Differences between integrated and quilted systems are examined. Emphasis on management and use of information to support management decision making. This course is cross-listed with MHA 6450.

### **MSRS 6453 - Evaluation/CNS and Facial Structures**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Imaging evaluation of pathological conditions, abnormalities and anomalies of the central nervous system and facial structures.

### **MSRS 6463 - Problem Patient Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Determination of pathological conditions utilizing problem-solving case studies.

### **MSRS 6473 - Vascular Non-Invasive Imaging Procedures**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Patient preparation and performance of medical imaging vascular non-invasive procedures are presented.

### **MSRS 6483 - Musculoskeletal Sonography**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The (MSK) Sonography course will provide concepts in musculoskeletal anatomy and sonographic scanning technique and protocols necessary to produce and evaluate diagnostic images in the clinical setting for diagnosis of musculoskeletal pathology.

### **MSRS 6493 - Advanced 3D Medical Imaging**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The Advanced 3D Medical Imaging course will provide instruction on the creation, manipulation, and printing of three-dimensional data-sets of different anatomical parts of the body. The data-sets will originate from diagnostic images (provided by the department or the student), particularly Magnetic Resonance Imaging (MRI) and Computer

Tomography (CT) images. The course will include a hands-on learning lab where the student will use software to create a three-dimensional digital image and a three-dimensional print of an anatomical body part.

### **MSRS 6860 - Clinical Preceptorship**

**Typically taught:**  
**Spring [Full Sem]**

Experience in a radiology department. Consent of instructor needed.

### **MSRS 6861 - Clinical Preceptorship**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Continuation of MSRS 6860.

### **MSRS 6862 - Clinical Preceptorship**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Continuation of MSRS 6861.

### **MSRS 6863 - Vascular Invasive Imaging Procedures**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Patient preparation and performance of medical imaging vascular invasive procedures are presented.

### **MSRS 6900 - Capstone: Clinical Fellowship & Portfolio**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Experience in a radiology department and interventional Radiology coordinated by Weber State University under the supervision of a radiologist or other Medical Practitioner. Review and evaluation of student competencies, clinical performance and professional development as required by certification.

### **MSRS 6999 - Master's Thesis in Radiologic Sciences**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Students will enroll for this course as they complete their Masters thesis under the direction of a departmental graduate advisor. Departmental seminars and readings may also be assigned as part of this course. Students will finish their Master of Science in Radiologic Sciences degree by first completing a course of classroom or didactic study, then writing an original research monograph for their thesis. This course is to be used during the time the student is writing the thesis and getting approval for the thesis.

### **MSRT 6010 - Medical Writing, Research Methods & Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course will assist students in developing writing skills that meet professional journal requirements. Students will learn how to write research reports, abstracts, clinical case reports and scientific posters. Students will develop skills in effective editing, reviewing and proofreading. They will also develop skills that allow them to critically read published research articles in order to understand the validity and implications of the study results. Prerequisite: Acceptance into MSRT program.

### **MSRT 6020 - Medical Pathophysiology/Cardiopulmonary Case Reviews**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Advanced-practice pathology of the heart and lungs presented in case study format for articulating a working diagnosis, treatment, and follow-up care based on an abundance of patient assessment techniques including patient history/physical, signs, symptoms, and ancillary radiographic evidence. Medical information gathered from research database articles are presented to enhance a decision-making rationale for the treatment of cardiopulmonary diseases. Prerequisite: Acceptance into MSRT program.

### **MSRT 6030 - Adult Learning Theory & Simulation Strategies**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An application of teaching and learning theories for adult learners across variable clinical, laboratory, simulation lab, and in face-to-face interactions are explored within both traditional and non-traditional classroom settings. Teaching strategies and simulation designs are designed to support student learning for future respiratory therapy educators and clinical instructors. Prerequisite: Acceptance into MSRT program.

### **MSRT 6130 - Evidence-based Practice**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course explores research-based evidence of best practices for advanced respiratory care practitioners (RCP's) by identifying important questions, i.e., medication, ventilation strategies, protocols, etc. in the evaluation, diagnosis, or treatment of patients suffering abnormalities of the cardiopulmonary system. A methodological approach to evaluate practice is explored through a systematic literature search whereby the evidence manifest through particular treatments of a population can be expected. Prerequisite: Acceptance into MSRT program.

### **MSRT 6140 - Applied Research in Respiratory Care**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Research is a fundamental part of healthcare. This course will explore research opportunities specifically in the field of respiratory care. Basic statistical concepts will be reviewed. Nominal, ordinal, and continuous methods will also be

studied. Publishing the findings through an original research paper, an abstract, case report, and poster presentation will be a main focus for this course. Prerequisite: Acceptance into MSRT program.

### **MSRT 6410 - Certified Pulmonary Function Technologist (CPFT)**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Evaluation and assessment of pulmonary disease is an important skill for the advanced-practice respiratory care practitioner (RCP). Requisite to making an accurate diagnosis, practitioners must understand diagnostic measurements and recommend treatment of patients with specific pulmonary diseases. This course is essential to gain knowledge to pass the CPFT (NBRC) exam for Certified Pulmonary Function Technologists. Prerequisite: Acceptance into MSRT program.

### **MSRT 6420 - Sleep Disorders Specialty (SDS)**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is essential to gain knowledge in the evaluation and treatment of sleep disorders in the context of a polysomnography lab and to pass the SDS (NBRC) credential for sleep disorder specialists. Prerequisite: Acceptance into MSRT program.

### **MSRT 6460 - Neonatal Pediatric Specialty (NPS)**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course prepares the advanced-practice respiratory care practitioner (RCP) to optimally participate in the assessment, management, and care of newborn and pediatric populations. The course includes development, common disease pathology, pharmacology, and management of neonatal patients, emergency treatment, and evaluation of conditions and abnormalities of the cardiopulmonary systems. This course will prepare the practitioner for a national neonatal and pediatric specialty examination (NPS). Prerequisite: Acceptance into MSRT program.

### **MSRT 6470 - Adult Critical Care Specialty (ACCS)**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course prepares the advanced-practice respiratory care practitioner (RCP) to effectively evaluate, assess, manage and provide appropriate care to critically ill adult patients. This course extensively covers advanced airway and cardiovascular management, mechanisms of respiratory failure, analysis of laboratory and imaging results, specialty medical gasses and pharmacological agents, management of patients with infectious disease and sepsis, assisting and performing advanced procedures, and end-of-life care in the adult population. This course will prepare the practitioner for an advanced critical care specialty credentialing examination (ACCS). Prerequisite: Acceptance into MSRT program.

### **MSRT 6480 - Asthma Educator Specialty Credential (AE-C)**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course prepares the advanced-practice respiratory care practitioner (RCP) to optimally educate patients and family members of patients suffering with asthma. The course includes disease pathophysiology, assessment, pharmacology, classification, and management of asthma based on severity, emergency treatment and evaluation of treatment programs. This course will prepare the practitioner for a national asthma education certification examination (AE-C). Prerequisite: Acceptance into MSRT program.

### **MSRT 6700 - Capstone Project**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to be self-directed, faculty supervised culminating project specific to the educational track that the student has chosen within the MSRT program (Education, Research or Health Administration). The student will demonstrate their firm grasp of their educational track and their mastery of professional/scientific writing through the development of a research paper. This course requires that the student develop a research question, prepare a learning contract that outlines their approach to the research question, and complete 40 hours of documented time with a mentor(s) who have a minimum of a Master's degree in a related area or in performing original research. The student will also assemble a formative committee to act as a resource as the student develops the research project and summative committee to evaluate and validate the student's research. The formative and summative committees each consist of three professionals with a minimum of a Master's degree. The student will complete a Masters level research paper that is a minimum of 40-50 pages in APA format. Prerequisite: Acceptance into MSRT program. May be repeated once up to 6 credit hours.

### **MTAX 6400 - Tax Research & Communication**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Techniques in effective tax research, planning and communication. Also includes a discussion of tax policy.

### **MTAX 6405 - Accounting for Income Taxes**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Cash and accrual methods of accounting, inventories, accounting for book/tax disparities, income statement tax provision, original issue discount, depreciation methods, amortization, long-term contracts, changes in methods of accounting, accounting periods, capitalization vs. expense, and other topics critical to bridging financial accounting and tax accounting.

### **MTAX 6410 - International Taxation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Principles of U.S. taxation applicable to inbound and outbound international transactions. Also covers issues related to international tax treaties.

### **MTAX 6430 - Advanced Individual Taxation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

In-depth coverage of advanced individual tax issues such as alternative minimum tax, loss limitations, real estate transactions, stock options, employment taxes, tax credits, charitable contributions, interest classification, related-party transactions, and timing of income/loss recognition.

### **MTAX 6435 - State & Local Taxation/Federal Tax Practice**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

State income taxation, nexus, multijurisdictional operations, constitutional limitations, sales tax, excise tax, property tax; federal tax procedure, handling IRS audits, appeals, petitions to U.S. Tax Court, and other issues related to tax practice.

### **MTAX 6445 - Gifts, Estates, Trusts and Exempt Organizations**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Principles of estate & gift taxation, exclusions, deductions, valuation issues, the unified credit, wills and intestate succession, income in respect of a decedent, income taxation of estates and trusts, income and estate/gift issues affecting donations to charity, nonprofit corporations, public charities, private foundations, excise taxes, unrelated business income, and compliance issues for tax-exempt entities.

### **MTAX 6450 - Real Estate Taxation**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

In-depth study and analysis of the taxation of real estate transactions. Covers topics such as like-kind exchanges, personal residences, real estate development, passive loss rules, involuntary conversions, casualty losses, and real estate investment trusts.

### **MTAX 6455 - Gifts, Estates, Trusts & Real Estate Taxation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Principles of gift and estate taxation. Includes a discussion of wills and the income taxation of estates and trusts. Also covers taxation of real estate transactions including like-kind exchanges, involuntary conversions, leases, personal residences, real estate development, and cost segregation.

### **MTAX 6460 - Advanced Corporate Taxation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Income taxation of corporations and shareholders. Includes in-depth analysis of tax issues related to corporate formations, operations, distributions and liquidations. Also covers the taxation of S corporations.

#### **MTAX 6470 - Advanced Partnership Taxation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

Income taxation of partnerships and partners. Includes in-depth analysis of tax issues related to partnership formations, operations, distributions and liquidations. Also covers issues related to limited liability companies.

#### **MTAX 6480 - Retirement Planning & Employee Benefits**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Consideration of tax, insurance, investment and estate planning principles from a retirement perspective. Includes discussion of sources of retirement income and anticipated retirement expenses.

#### **MTAX 6485 - Retirement Plans & Exempt Organizations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Discussion of IRAs, Roth IRAs, defined contribution plans such as 401(k)s. Qualification of retirement plans as tax-favored under the Internal Revenue Code. Discussion of retirement plans available to small business. In-depth discussion of nonprofit organizations, charities, qualifying for tax-exempt status, private foundations, unrelated business income, and tax compliance for exempt entities.

#### **MTAX 6490 - Mergers, Acquisitions and Consolidations**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

In-depth coverage of advanced corporate tax topics such as tax-free corporate reorganizations, taxable stock acquisitions, taxable asset acquisitions, affiliated groups, consolidated returns, and corporate tax shelters. Prerequisite: (Recommended) MTAX 6460.

#### **MTAX 6495 - Graduate Tax Internship**

**Credits: (1-3)**

**Typically taught:**

**Various**

A significant professional-level field experience in the area of accounting or taxation. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through MAcc/MTax courses. Credit/No Credit. Prerequisite: Admission to the MAcc or MTax program; approval by department chair and program director. Can be repeated once up to six credit hours.

### **MTHE 2120 - Geometry from a Teaching Perspective**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Students will explore topics in Euclidean geometry, beginning with concepts in secondary geometry standards and extending beyond these topics. These ideas will be interwoven with strategies for teaching geometry at the secondary level. Prerequisite: MATH 1210.

### **MTHE 3010 - Methods and Technology for Teaching Secondary Mathematics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Basic topics in secondary mathematics are taught to prospective teachers using a variety of methods of presentation and up-to-date technology, including the use of graphing calculators and computers. Prerequisite: MATH 1220 and at least 6 credit hours of MATH courses numbered 3000 or above.

### **MTHE 3020 - Methods and Technology for Teaching Advanced Secondary Mathematics**

**Credits: (3)**

Aspects of teaching advanced mathematics in a high school setting, including methods of presentation, exploration, assessment and classroom management. An emphasis is placed on the use of computers, graphing calculators, and other technology. Prerequisite: MTHE 3010.

### **MTHE 3060 - Probability and Statistics from a Teaching Perspective**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students will explore topics in probability and statistics, beginning with concepts in middle and high school standards and extending to the college level. These ideas will be interwoven with strategies for teaching probability and statistics at the appropriate levels. Prerequisite: MATH 1210 or instructor consent.

### **MTHE 3070 - Geometry for Elementary Teachers**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Basic Geometry with an emphasis on the topics and methods pertinent to prospective elementary school teachers. Prerequisite: MATH 2010 and MATH 2020.

### **MTHE 3080 - Number Theory for Elementary Teachers**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Survey of elementary number theory concepts with applications to topics of interest plus teaching suggestions. Prerequisite: MATH 2010 and MATH 2020.

### **MTHE 4010 - Capstone Mathematics for High School Teachers II**

**Credits: (3)**

Prospective high school teachers revisit mathematics topics from the secondary school curriculum and examine them from an advanced perspective. The major emphasis is on topics from geometry. Prerequisite: MTHE 4110.

### **MTHE 4040 - Mathematical Problem Solving for Elementary Teachers**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Mathematical problem solving, discussion of process, writing solutions, and writing extensions. Prerequisite: MATH 2010 and MATH 2020.

### **MTHE 4100 - Intuitive Calculus for Elementary Teachers**

**Credits: (3)**

Prerequisite: MATH 2010 and MATH 2020.

### **MTHE 4110 - Algebra from a Teaching Perspective**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Students will explore topics in algebra, beginning with concepts in middle and high school standards and extending to college level algebra. These ideas will be interwoven with strategies for teaching algebraic ideas at the middle and high school level. Prerequisite: MATH 3110.

### **MTHE 4700 - Senior Project in Elementary Mathematics Teaching**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Projects in preparing, teaching and revising sequential mathematics lessons for elementary students. Prerequisite: MATH 2010 and MATH 2020.

### **MTHE 5010G - Methods and Technology for Teaching Secondary Mathematics**

**Credits: (3)**

Topics in secondary mathematics are taught to in-service teachers using a variety of methods and technology to make them better prepared for teaching secondary mathematics. Expository presentations about a current mathematics education research area are expected.

### **MTHE 5210G - Calculus with Analytic Geometry**

**Credits: (4)**

Analytic geometry, differentiation, integration, and applications. Prerequisite: MATH 1050 and MATH 1060 or MATH 1080 or placement test.

### **MTHE 5220G - Calculus with Analytic Geometry**

**Credits: (4)**

Transcendental functions, techniques of integration, conic sections, polar coordinates, infinite series, introduction to partial derivatives. Prerequisite: MTHE 5210G.

### **MTHE 5230G - Mathematics Computer Laboratory**

**Credits: (1)**

Computer solution of mathematics problems. Prerequisite: Approval of instructor. May be taken concurrently with any lower division mathematics course.

### **MTHE 5310G - Multivariable and Vector Calculus**

**Credits: (4)**

Vectors, vector valued functions, motion in space, multivariable functions, partial derivatives, multiple integrals, integration in vector fields. Prerequisite: MTHE 5220G.

### **MTHE 5350G - Linear Algebra and Differential Equations**

**Credits: (4)**

Introduction to Linear Algebra and Differential Equations. Systems of linear equations, matrices, vector spaces, eigenvalues. First and second order differential equations and models, higher order linear equations, linear systems. Prerequisite: MTHE 5220G.

### **MTHE 5920G - Short Courses, Workshops, Institutes and Special Programs**

**Credits: 1-6**

This course provides professional development workshops for inservice K-12 teachers around the teaching and learning of mathematics. This is a flexible credit hour course ranging from 1-6 credit hours. May be repeated up to 24 credit hours.

### **MTHE 6120 - Euclidean and Non-Euclidean Geometry**

**Credits: (3)**

Axiomatic development of geometry; Euclidean and non-Euclidean. Prerequisite: MTHE 5220G.

### **MTHE 6160 - Number Theory**

**Credits: (3)**

An overview of beginning number theory including the integers, modulo arithmetic, congruencies, Fermat's theorem and Euler's theorem. Prerequisite: MTHE 5210G.

### **MTHE 6350 - Linear Algebra**

**Credits: (3)**

Theory and applications of linear algebra including abstract vector spaces and canonical forms of matrices. Prerequisite: MTHE 5350G.

### **MTHE 6410 - Probability and Statistics**

**Credits: (3)**

The mathematical content of probability and statistics at the undergraduate post calculus level. An understanding of the application of probability and statistics is also stressed. Co-Requisite: MTHE 5310G or prerequisite of MTHE 5220G and consent of instructor.

### **MTHE 6420 - Probability and Statistics**

**Credits: (3)**

The mathematical content of probability and statistics at the undergraduate post calculus level. An understanding of the application of probability and statistics is also stressed. Prerequisite: MTHE 6410

### **MTHE 6550 - Introduction to Mathematical Modeling**

**Credits: (3)**

Formulation, solution and interpretation of mathematical models for problems occurring in areas of physical, biological and social science. Prerequisite: MTHE 5310 and 5350.

### **MTHE 6610 - Graph Theory**

**Credits: (3)**

Principles of Graph Theory including methods and models, special types of graphs, paths and circuits, coloring, networks, and other applications. Prerequisite: MTHE 5210.

### **MTHE 6620 - Enumeration**

**Credits: (3)**

Principles of Enumeration including counting principles, generating functions, recurrence relations, inclusion-exclusion, and applications. Prerequisite: MTHE 5210.

### **MTHE 6630 - Boundary Value Problems**

**Credits: (3)**

Series solutions, Fourier series, separation of variables, orthogonal functions. Prerequisite: MTHE 5350.

### **MTHE 6640 - Differential Equations II**

**Credits: (3)**

Matrix approach to linear systems, nonlinear systems, Laplace transforms. Prerequisite: MTHE 5350.

### **MTHE 6650 - Complex Variables**

**Credits: (3)**

Analysis and applications of a function of a single complex variable. Analytic function theory, path integration, Taylor and Laurent series and elementary conformal mapping are studied. Prerequisite: MTHE 5310G and MTHE 5350G.

### **MTHE 6660 - Modern Algebra I**

**Credits: (3)**

Logic, sets, and the study of algebraic systems including groups, rings, and fields. Prerequisite: MTHE 5350G.

### **MTHE 6670 - Modern Algebra II**

**Credits: (3)**

Continuation of MATH 4110: advanced topics from groups, rings, and fields including the Sylow theorems and Galois theory. Prerequisite: MTHE 6660.

### **MTHE 6680 - Introductory Real Analysis**

**Credits: (3)**

Develop the analysis underlying calculus. In-depth study of limits, continuity, integration, differentiation, sequences and series. Other topics may include Lebesgue measure and integration and Fourier Analysis. Prerequisite: MTHE 5310G and MTHE 5350G

### **MTHE 6690 - Introductory Real Analysis**

**Credits: (3)**

Develop the analysis underlying calculus. In-depth study of limits, continuity, integration, differentiation, sequences and series. Other topics may include Lebesgue measure and integration and Fourier Analysis. Prerequisite: MTHE 6680

### **MTHE 6700 - Topology**

**Credits: (3)**

Introduction to point-set topology, including metric and topological spaces, continuity, homeomorphisms, compact and connected spaces, and complete metric spaces. Other topics may include the Baire Category Theorem and Tietze Extension Theorem. Prerequisite: MTHE 5310G and MTHE 5350G.

### **MTHE 6710 - Numerical Analysis**

**Credits: (3)**

Introduction to numerical methods. Use of the digital computer in solving otherwise intractable problems. Prerequisite: MTHE 5350G and CS 1410 or other approved programming language

### **MTHE 6720 - Numerical Analysis**

**Credits: (3)**

Introduction to numerical methods. Use of the digital computer in solving otherwise intractable problems. Prerequisite: MTHE 6710

### **MTHE 6730 - Partial Differential Equations**

**Credits: (3)**

First order equations, characteristics and classifications, Green's identities, models, transforms. Prerequisite: MTHE 6630.

### **MTHE 6740 - Mathematics for Teaching - Numbers and Operations**

**Credits: (3)**

Provides teachers a deeper understanding of our number system and relate its structure to computation, arithmetic, algebra and problem solving. Course topics will include number, number sense, computation, and estimation and instructional strategies to facilitate the instruction of this content for elementary teachers. Prerequisite: A Bachelor's degree and at least one year of experience teaching elementary or junior high school mathematics.

### **MTHE 6750 - Mathematics for Teaching - Rational Numbers and Proportional Reasoning**

**Credits: (3)**

Provides practicing teachers a deeper understanding of rational numbers, operations with rational numbers, and proportionality, and instructional strategies to facilitate the instruction of this content for elementary students. Prerequisite: A Bachelor's Degree and at least one year of teaching experience in an elementary or junior high school.

### **MTHE 6760 - Mathematics for Teaching - Algebraic Reasoning**

**Credits: (3)**

Provides practicing teachers a deeper understanding of algebraic expressions, equations, functions, real numbers, and instructional strategies to facilitate the instruction of this content for elementary students. Prerequisite: A Bachelor's Degree and at least one year of teaching experience in an elementary or junior high school.

### **MTHE 6770 - Mathematics for Teaching - Geometry and Measurement**

**Credits: (3)**

Provides practicing teachers a deeper understanding of the geometry and measurement content that exists in the state core and instructional strategies to facilitate the instruction of this content. Prerequisite: A Bachelor's Degree and at least one year of teaching experience in an elementary or junior high school.

### **MTHE 6780 - Mathematics for Teaching - Problem Solving and Data Analysis**

**Credits: (3)**

This course will develop a firm problem-solving foundation. Using skills and strategies applied in mathematical contexts practicing teachers will learn to think, work with others, present solutions, and facilitate problem solving instruction in the classroom. This course will also provide practicing teachers a deeper understanding of probability and statistics content in the state core and instructional strategies to facilitate the instruction of this content. Prerequisite: A Bachelor's degree and at least one year of teaching experience in an elementary or junior high school.

### **MUSC 1006 - Concert Attendance I**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

To be a successful musician, it is essential to develop excellent listening skills. Professional musicians are familiar with a wide variety of genres and styles. This course provides music students with opportunities to become familiar with the diversity of music that exists in our world. With this in mind, music majors and minors are expected to attend concerts and recitals on a regular basis. During the first two years of study, concert attendance is required and tracked by the department office staff. Students must concurrently enroll in applied music lessons. Credit/No Credit grading. May be repeated once.

### **MUSC 1010 CA - Introduction to Music**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

An introduction to music, its elements, language, and historical development. The course focuses on European and American music with components of jazz, world, and popular genres. Concert attendance outside of regularly scheduled class time is required. Not available to music majors.

## **MUSC 1020 - What Makes Us Human?: Creativity and the Humanities**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course will provide a broad Introduction to the Arts and Humanities as seen through the lenses of Plato's "Big Three": The Good, The True and The Beautiful. The perspective of the Good will be taken to look at the Arts and Humanities in society (their Role), that of the True to explore their scientific side (their Nature), and that of the Beautiful to investigate our interior, personal experience (their Meaning).

## **MUSC 1030 CA - Introduction to Jazz**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A survey of jazz in America, including blues, ragtime, Dixieland, swing, bebop, cool, and fusion. Concert attendance outside of regularly scheduled class time is required.

## **MUSC 1033 CA - Introduction to American Music**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Full Sem]**

Survey of music in America, including classical, jazz, rock, folk, and ethnic, within the context of American history.

## **MUSC 1035 CA - History of Rock and Roll**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

This course is a survey of Rock Music styles from ca. 1950 to the present. We also discuss pre- and proto- rock styles such as Jazz, Blues, and popular song, reaching back into the late nineteenth century. In the course we will not only study the changing history of rock music (which requires discussion of non-rock music as well), but also the cultural forces that gave rise to those changes. Because of this historical perspective, our approach will be largely chronological, with an eye toward how various styles influenced one another.

## **MUSC 1040 CA/DV - Music of World Cultures**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

An introduction to the music of cultures around the world, including India, Middle East, China, Japan, Indonesia, Sub-

Saharan Africa, Europe, Latin America, Caribbean, Native American music, and Ethnic North America. The course discusses the influence of music on, and its relationship to, the various cultures and populations.

### **MUSC 1043 HU - Music, the Arts & Civilizations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is a chronological introduction to mostly western music that also explores its relationship to the other arts.

### **MUSC 1063 CA - Music in Religion**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

An introduction to music in world religions and how it has shaped the history of man. Specific religious works and specific composers from numerous world denominations will be discussed: Judaism, Christianity, Islam, Hinduism, Sikhism, and Buddhism. Major religious works from European art music will be explored.

### **MUSC 1100 - Fundamentals of Music**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Melody, harmony, rhythm, notation, ear training, and sight-singing skills needed to meet entrance requirements for MUSC 1110 & MUSC 1130.

### **MUSC 1110 - Music Theory I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Elementary harmony, primary and secondary triads with inversions, non harmonic tones, and modulation. Prerequisite: Complete Theory Placement exam with a score of 70% or higher or MUSC 1100 with a grade of "C" or higher. A student scoring a 4 on the AP Music Theory Exam may enroll in Music Theory I without taking the placement exam. The student, however, must enroll in these courses within a year of completing the AP Music Theory Exam. After one year, the student will be required to take the Music Theory Placement Exam and their former AP score is no longer recognized. A student scoring a 5 on the AP Music Theory Exam may enroll in Music Theory I without taking the placement exam. They may enroll for up to two years after completing the AP Music Theory Exam. After two years their former AP score is no longer recognized. Must be taken concurrently with MUSC 1130, MUSC 1140. Music Majors and Minors only

### **MUSC 1120 - Music Theory II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Elementary harmony, primary and secondary triads with inversions, non harmonic tones, and modulation. Must be taken concurrently with MUSC 1130, MUSC 1140. Music Majors and Minors only

### **MUSC 1130 - Sight-Singing & Aural Skills I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Development of aural skills needed to function as a musician and teacher. Emphasis on progressively advancing aural perception using the "fixed do" system. Prerequisite: Complete Theory Placement exam with a score of 70% or higher or MUSC 1100 with a grade of "C" or higher. A student scoring a 4 or 5 on the AP Music Theory Exam may enroll in MUSC 1130 (Sight-singing and & Aural Skills I) without taking the placement exam. The student, however, must enroll in these courses within a year of completing the AP Music Theory Exam. After one year, the student will be required to take the Music Theory Placement Exam and their former AP score is no longer recognized. Must be taken concurrently with MUSC 1110. Music Majors and Minors only

### **MUSC 1140 - Sight-Singing & Aural Skills II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Development of aural skills needed to function as a musician and teacher. Emphasis on progressively advancing aural perception using the "fixed do" system. Must be taken concurrently with MUSC 1110, MUSC 1120. Music Majors and Minors only

### **MUSC 1143 - Music Theory and Piano for Musical Theatre**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Development of aural, piano and sight-singing skills as they pertain to the Musical Theatre performer and practitioner. Emphasis on harmony, melody, rhythm, notation and applicable keyboard skills.

### **MUSC 1150 - Class Piano I**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Beginning piano instruction with emphasis on reading, technical facility and sound musicianship. Prerequisite: Complete Theory Placement exam with a score of 70% or higher or MUSC 1100 with a grade of "C" or higher. A student scoring a 4 or 5 on the AP Music Theory Exam may enroll in MUSC 1150 (Class Piano I) without taking the placement exam. The student, however, must enroll in this course within a year of completing the AP Music Theory Exam. After one year, the student will be required to take the Music Theory Placement Exam and their former AP score is no longer recognized. Music Majors and Minors only

### **MUSC 1160 - Class Piano II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Beginning piano instruction with emphasis on reading, technical facility and sound musicianship. Music Majors and Minors only

**MUSC 1321 - Basic Piano for Adults**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Beginning instruction in keyboard for non-music majors and minors. Students must have access to a piano for practice.

**MUSC 1500 - Beginning & Intermediate Classical Guitar**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Beginner and intermediate class instruction in classical guitar, including technique, repertoire, and history of the instrument. May be repeated up to 10 times for credit.

**MUSC 1501 - Modern Guitar Styles**

**Credits: (1)**

This entry-level course offers instruction in pick-style guitar. Styles covered include folk, rock, jazz, and popular. Special emphasis on note reading and basic musicianship.

**MUSC 1502 - Violin Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1503 - Viola Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1504 - Cello Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1505 - String Bass Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1506 - Guitar Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1507 - Harp Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1510 - Trumpet Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1511 - French Horn Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1512 - Trombone Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1513 - Euphonium/Tuba Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1520 - Percussion Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1530 - Voice Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1540 - Flute Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1541 - Oboe Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 1542 - Clarinet Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1543 - Saxophone Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1544 - Bassoon Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1601 - Private Instruction**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individual lessons, vocal or instrumental. For those students not pursuing a major or minor in music. May be repeated 19 times with a maximum of 20 credit hours. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors.

### **MUSC 1610 - Applied Keyboard: Piano**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music Majors or Minors with a Keyboard Emphasis only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1611 - Applied Keyboard: Organ**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1620 - Applied Voice**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1630 - Applied Woodwinds: Flute**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1631 - Applied Woodwinds: Oboe**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1632 - Applied Woodwinds: Clarinet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1633 - Applied Woodwinds: Saxophone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1634 - Applied Woodwinds: Bassoon**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1640 - Applied Brass: Trumpet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1641 - Applied Brass: French Horn**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1642 - Applied Brass: Trombone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1643 - Applied Brass: Euphonium/Tuba**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1650 - Applied Strings: Violin**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1651 - Applied Strings: Viola**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1652 - Applied Strings: Violoncello**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1653 - Applied Strings: String Bass**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1654 - Applied Strings: Guitar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1655 - Applied Strings: Harp**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1660 - Applied Percussion**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 1673 - Private Instruction**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. For vocal or instrumental students. Two hours of instruction/week. Minimum of 18 hours/week practice required. One-half hour special assignment. By consent of instructor only. May be taken for credit up to three times in any area of specialization. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors.

### **MUSC 1730 - Keyboard Ensemble**

**Credits: (1)**

Training in piano ensemble situations to develop fluency in reading. Keyboard majors and minors only. Fulfills the major ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1740 - Weber State Concert Choir**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Fulfills the major ensemble requirement for music majors and minors. Membership by audition or consent of instructor. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1741 - Chamber Choir**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A highly select group of approximately 24 singers performing the entire range of small choir literature. Fulfills the chamber ensemble requirement for music majors. By audition only. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1743 - Vocal Chamber Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Training in small vocal groups such as trios, quartets, and sextets. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1744 - Musical Theatre**

**Credits: (1-2)**

Rehearsal and performance of musical theatre productions. By audition only. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1745 - Weber State Community Choir**

**Credits: (1)**

**Typically taught:**

**(Evening only.)**

Membership by audition or consent of instructor. Does not fulfill any ensemble requirement for music majors or minors. May be repeated 7 times with a maximum of 8 credit hours. Note: This course is not currently active.

### **MUSC 1750 - Symphonic Band**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Emphasis is on the study and preparation of modern symphonic band literature. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1751 - Wind Ensemble**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Emphasis is on study and performance of literature for selected wind and percussion ensembles of varying size. Participants may be required to participate in symphonic band. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1752 - Marching Band**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

By audition and/or consent of the director to students on flags, rifles, and band instruments. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1753 - Jazz Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1754 - Percussion Ensemble**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1755 - Instrumental Chamber Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Training in instrumental chamber ensembles such as trios, quartets, quintets, and sextets. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1756 - Pep Band**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Plays at athletic functions using contemporary jazz, rock, and popular music. By audition. Does not fulfill any ensemble requirement for music majors or minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1760 - Weber State Symphony Orchestra**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Full symphony orchestra instrumentation. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1761 - Chamber Orchestra**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1762 - Theatre Orchestra**

**Credits: (1-2)**

Membership by audition or consent of instructor. Instrumentation determined by the music production being presented. Does not fulfill any ensemble requirement for music majors or minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1763 - Guitar Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 1901 - Music: The First-Year Experience**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to the music area and its programs, including email usage, department policies and procedures, career options, and curriculum. Music Majors and Minors only

### **MUSC 1911 - Introduction to Music Technology**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to uses of technology in music teaching and performance, including use of music composition and multimedia software. Music Majors and Minors only

### **MUSC 2006 - Concert Attendance II**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

To be a successful musician, it is essential to develop excellent listening skills. Professional musicians are familiar with a wide variety of genres and styles. This course provides music students with opportunities to become familiar with the diversity of music that exists in our world. With this in mind, music majors and minors are expected to attend concerts

and recitals on a regular basis. During the first two years of study, concert attendance is required and tracked by the department office staff. Students must concurrently enroll in applied music lessons. Credit/No Credit grading. May be repeated once.

### **MUSC 2110 - Music Theory III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Continuation of Theory II. Includes altered, borrowed, and other unique chord sonorities; advanced modulation; 20th century compositional techniques; analysis; and projects that will explore application of theoretical concepts. Prerequisite: MUSC 1120 and MUSC 1140 or equivalents. A student scoring a 5 on the AP Music Theory Exam may enroll in Music Theory III for up to one year after completing the AP Music Theory Exam. After one year, their former AP score is no longer recognized. Must be taken concurrently with MUSC 2130 and MUSC 1150. Music Majors and Minors only

### **MUSC 2120 - Music Theory IV**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of Theory II. Includes altered, borrowed, and other unique chord sonorities; advanced modulation; 20th century compositional techniques; analysis; and projects that will explore application of theoretical concepts. Prerequisite: MUSC 1120 and MUSC 1140 or equivalents. Must be taken concurrently with MUSC 2130, MUSC 2140. Music Majors and Minors only

### **MUSC 2130 - Sight Singing & Aural Skills III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Continuation of Sight-Singing & Aural Skills II. Development of more advanced listening skills and of ability to recognize and correct performance errors. Prerequisite: MUSC 1120 and MUSC 1140 or equivalents. A student scoring a 5 on the AP Music Theory Exam may enroll in MUSC 2130 (Sight -singing & Aural Skills III) for up to one year after completing the AP Music Theory Exam. After one year, their former AP score is no longer recognized. Must be taken concurrently with MUSC 2110. Music Majors and Minors only

### **MUSC 2140 - Sight Singing & Aural Skills IV**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of Sight Singing & Aural Skills II. Development of more advanced listening skills and of ability to recognize and correct performance errors. Prerequisite: MUSC 1120 and MUSC 1140 or equivalents. Must be taken concurrently with MUSC 2110, MUSC 2120. Music Majors and Minors only

### **MUSC 2150 - Class Piano III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

Continuation of MUSC 1160 with emphasis on advanced reading, further development of technical facility and expanded

concepts of musicianship. Prerequisite: MUSC 1160 or placement by audition, and MUSC 1120 and MUSC 1140. Music Majors and Minors only

#### **MUSC 2160 - Class Piano IV**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of MUSC 1160 with emphasis on advanced reading, further development of technical facility and expanded concepts of musicianship. Prerequisite: MUSC 1160 or placement by audition, and MUSC 1120 and MUSC 1140. Music Majors and Minors only

#### **MUSC 2202 - Survey of Music History & Literature I**

**Credits: (2)**

A survey of the development of the historical and stylistic periods of European art music from ca 400-1750. Required for Music History credit for all Music Minors. Prerequisite: MUSC 1110 and MUSC 1130. Open to all university students who have completed MUSC 1010. Does not fulfill Creative Arts or Humanities credit. Music Majors and Minors only

#### **MUSC 2212 - Survey of Music History & Literature II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

A survey of the development of the historical and stylistic periods of European art music from ca 1750-20th century. Required for Music History credit for all Music Minors. Prerequisite: MUSC 1110 and MUSC 1130. Open to all university students who have completed MUSC 1010. Does not fulfill Creative Arts or Humanities credit. Music Majors and Minors only

#### **MUSC 2321 - Principles of Piano Accompanying I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

To learn the art of accompaniment, to become knowledgeable about repertoire and style, and to improve sight reading. Prerequisite: Piano proficiency. Music Majors and Minors only

#### **MUSC 2331 - Principles of Piano Accompanying II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

To learn the art of accompaniment, to become knowledgeable about repertoire and style, and to improve sight reading. Prerequisite: Piano proficiency. Music Majors and Minors only

#### **MUSC 2401 - Musical Improvisation**

**Typically taught:**

**Spring [Full Sem]**

Students will be presented with basic improvisation concepts in the course, including improvising rhythmically,

diatonically, over functional harmony, using extra-musical inspiration, and creating free and collaborative improvisations. Through demonstration and practice, students will learn how all of these methods in totality or combination can work to create successful improvisations. Students will be judged based on their ability to demonstrate mastery over a particular concept through their own performance. Possible assignments include in-class performances and a final concert featuring student improvisations. Prerequisite: MUSC 1120.

### **MUSC 2540 - Instrumental Techniques for Choral Majors**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] even years**

A course for Choral Music Education majors that encompasses a practical and analytical approach to the understanding of basic playing and teaching techniques of the band and orchestral instruments. Music Majors and Minors only

### **MUSC 2610 - Applied Keyboard: Piano**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music Majors or Minors with a Keyboard Emphasis only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 2611 - Applied Keyboard: Organ**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 2620 - Applied Voice**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 2630 - Applied Woodwinds: Flute**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2631 - Applied Woodwinds: Oboe**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2632 - Applied Woodwinds: Clarinet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2633 - Applied Woodwinds: Saxophone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2634 - Applied Woodwinds: Bassoon**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2640 - Applied Brass: Trumpet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2641 - Applied Brass: French Horn**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2642 - Applied Brass: Trombone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2643 - Applied Brass: Euphonium/Tuba**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2650 - Applied Strings: Violin**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2651 - Applied Strings: Viola**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2652 - Applied Strings: Violoncello**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2653 - Applied Strings: String Bass**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2654 - Applied Strings: Guitar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2655 - Applied Strings: Harp**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 2660 - Applied Percussion**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 2673 - Private Instruction**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. For vocal or instrumental students. Two hours of instruction/week. Minimum of 18 hours/week practice required. One-half hour special assignment. By consent of instructor only. May be taken for credit up to three times in any area of specialization. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors.

### **MUSC 2821 - Percussion Methods I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem] even years**

A practical and analytical approach to teaching and playing percussion instruments, including selection of appropriate repertoire and minor repair. Music Majors and Minors only

### **MUSC 2822 - Percussion Methods II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem] odd years**

A continuation of MUSC 2821. Prerequisite: MUSC 2821. Music Majors and Minors only

### **MUSC 2841 - Brass Methods I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem] even years**

A practical and analytical approach to teaching and playing brass instruments, including selection of appropriate repertoire and minor repair. Music Majors and Minors only

### **MUSC 2842 - Brass Methods II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem] odd years**

A continuation of MUSC 2841. Prerequisite: MUSC 2841. Music Majors and Minors only

### **MUSC 2851 - Woodwind Methods I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem] odd years**

A practical and analytical approach to teaching and playing woodwind instruments, including selection of appropriate repertoire and minor repair. Music Majors and Minors only

### **MUSC 2852 - Woodwind Methods II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem] even years**

A continuation of MUSC 2851. Prerequisite: MUSC 2851 Music Majors and Minors only

### **MUSC 2871 - String Methods I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem] odd years**

A practical and analytical approach to teaching and playing string instruments, including selection of appropriate repertoire and minor repair. Music Majors and Minors only

### **MUSC 2872 - String Methods II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem] even years**

A continuation of MUSC 2871. Prerequisite: MUSC 2871 Music Majors and Minors only

### **MUSC 2881 - Vocal Workshop**

**Credits: (1)**

Development of the singing voice with special attention to freedom of tones, purity of vowels, interpretation, diction, and flexibility. Music Majors and Minors only

### **MUSC 2890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to all students in the music area who meet the minimum cooperative work experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. May be repeated to a maximum of 6 credits. Music Majors and Minors only

### **MUSC 2910 - Opera Production**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Preparation of operatic scenes and music. Music and staging rehearsal venue for the preparation of fully staged opera productions. May be repeated up to 10 times.

## **MUSC 2920 - Short Courses, Workshops, Institutes, and Special Programs**

### **Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript May be repeated 3 times with a maximum of 6 credit hours. Music Majors and Minors only

## **MUSC 3102 - Counterpoint**

### **Credits: (2)**

#### **Typically taught:**

**Spring [Full Sem] odd years**

Eighteenth century polyphonic techniques including the five contrapuntal species, formal processes, analysis, and compositional application of concepts studied. Prerequisite: MUSC 2120 and MUSC 2140 or equivalents. Music Majors and Minors only

## **MUSC 3112 - Orchestration**

### **Credits: (2)**

#### **Typically taught:**

**Spring [Full Sem] even years**

An exploration of principles of arranging music for instrumental sections and instrumental combinations. Prerequisite: MUSC 2120 and MUSC 2140 or equivalents. Music Majors and Minors only

## **MUSC 3122 - Choral Arranging**

### **Credits: (2)**

#### **Typically taught:**

**Spring [Full Sem] odd years**

An exploration of principles of arranging music for various voice groups. Prerequisite: MUSC 2120 and MUSC 2140 or equivalent. Music Majors and Minors only

## **MUSC 3205 - Music History I: Medieval, Renaissance, and Baroque Music**

### **Credits: (2)**

#### **Typically taught:**

**Fall [Full Sem]**

A survey of the developments in European art music, ca. 400-1750. The course emphasizes stylistic and critical analysis of representative compositions within historical and cultural contexts. Prerequisite: MUSC 1120 and MUSC 1140.

## **MUSC 3206 - Music History II: Classical and Romantic Music**

### **Credits: (3)**

#### **Typically taught:**

**Spring [Full Sem]**

A survey of the developments in European art music, ca. 1750-1890. The course emphasizes stylistic and critical analysis of representative compositions within historical and cultural contexts. Prerequisite: MUSC 3205.

### **MUSC 3207 - Music History III: Music of the 20th century to the present**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A survey of the developments in European art music from ca.1890 to the present. The course emphasizes stylistic and critical analysis of representative compositions within historical and cultural contexts. Prerequisite: MUSC 3206.

### **MUSC 3208 - World Music**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

An in-depth exploration of selected music outside the European/ American art and popular traditions. Attention will be given to musical elements and systems, as well as to the participation of music within culture and society. Open to both music and non-music majors. Prerequisite: MUSC 3207 for music majors; MUSC 1010 or MUSC 1040 for non-music majors

### **MUSC 3302 - Keyboard Literature I-II**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] even years**

Keyboard literature to acquaint the student with historical and stylistic periods of music. Music Majors and Minors only

### **MUSC 3312 - Keyboard Literature I-II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] odd years**

Keyboard literature to acquaint the student with historical and stylistic periods of music. Music Majors and Minors only

### **MUSC 3402 - Vocal Literature I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of a cross-section of vocal literature leading to knowledge of styles, composers, performance practice, and basic phonetics in commonly-used languages. Prerequisite: Piano proficiency and a minimum of two years of private voice instruction. Music Majors and Minors only

### **MUSC 3412 - Vocal Literature II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] even years**

A continuation of MUSC 3402. Prerequisite: MUSC 3402. Music Majors and Minors only

**MUSC 3502 - Violin Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 3503 - Viola Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 3504 - Cello Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 3505 - String Bass Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 3506 - Guitar Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

**MUSC 3507 - Harp Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3510 - Trumpet Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3511 - French Horn Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3512 - Trombone Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3513 - Euphonium/Tuba Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3520 - Percussion Master Class**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3525 - ArtsBridge**

**Credits: (1-6)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

ArtsBridge is a course that provides undergraduate students with an internship and academic credit for designing and implementing a comprehensive, needs-based, integrated arts project with community organizations or area schools. The course will offer students a clear structure and process for navigating the complexities of community engagement.

ArtsBridge students will work closely with a WSU faculty mentor, community/school stakeholder, peers, and the ArtsBridge program coordinator throughout the process culminating in the development of an arts integrated project. Prerequisite: Recommendation by education supervisor in fine arts content area faculty mentor. Content methodology course(s) completed or in progress. Following faculty recommendation, please contact the ArtsBridge coordinator for an interview.

### **MUSC 3530 - Voice Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3540 - Flute Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3541 - Oboe Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3542 - Clarinet Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3543 - Saxophone Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3544 - Bassoon Master Class**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

### **Spring [Full Sem]**

May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3601 - Private Instruction**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individual lessons, vocal or instrumental. For those students not pursuing a major or minor in music. May be repeated 19 times with a maximum of 20 credit hours. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors.

### **MUSC 3610 - Applied Keyboard: Piano**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music Majors or Minors with a Keyboard Emphasis only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3611 - Applied Keyboard: Organ**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3620 - Applied Voice**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3630 - Applied Woodwinds: Flute**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

### **Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3631 - Applied Woodwinds: Oboe**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3632 - Applied Woodwinds: Clarinet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3633 - Applied Woodwinds: Saxophone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3634 - Applied Woodwinds: Bassoon**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3640 - Applied Brass: Trumpet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3641 - Applied Brass: French Horn**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3642 - Applied Brass: Trombone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3643 - Applied Brass: Euphonium/Tuba**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3650 - Applied Strings: Violin**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3651 - Applied Strings: Viola**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3652 - Applied Strings: Violoncello**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3653 - Applied Strings: String Bass**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3654 - Applied Strings: Guitar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3655 - Applied Strings: Harp**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 3660 - Applied Percussion**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 3673 - Private Instruction**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. For vocal or instrumental students. Two hours of instruction/week. Minimum of 18 hours/week practice required. One-half hour special assignment. By consent of instructor only. May be taken for credit up to three times in any area of specialization. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors.

### **MUSC 3720 - Analog Audio**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Emphasis on the electrical (non-digital) transmission of sound. Covers cable types, uses, and construction as well as microphones, speakers, and signal processors. Students will achieve familiarity with the fundamentals and best practices regarding audio components, studio communication, and studio infrastructure. Critical listening skills will be developed throughout the course. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3721 - Live Sound in the 21st Century**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Focusing on advances in live sound technologies students will learn to assemble and optimize modern sound systems using DANTE and AVB network protocols and digital consoles. Best practices and common system setup will also be covered. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3722 - History of Recording**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Multimedia based course examining the complete history of recorded sound. Covering everything from Edison's cylinder to the advent of the MP3 and modern digital recording. Focusing on the inventors and milestones of the last 150 years. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3723 - Field Recording/Sound for Picture**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

This course will combine the art of capturing live sound in the field, Foley, and ADR in a post-production workflow combining dialog and music to video. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3724 - Studio Construction**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

During construction of the recording spaces students will observe and understand the recording studio construction process. This experience may be repeated until studio completion. May be taken 3 times up to 3 credits. Credit/No Credit grading. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3725 - Alternative Digital Audio Workstations**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to non-Pro Tools recording and music production applications. Covering setup, optimization, and basic operation. This may include but is not limited to Reason, Ableton LIVE, Digital Performer, Logic, and Garageband. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3726 - Creative Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A live performance / recording project ensemble. Turntables, folk instruments, world instruments, electronic musicians, rock / pop musicians etc. Audition not required. May be taken 3 times up to 3 credits. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3730 - Keyboard Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Training in piano ensemble situations to develop fluency in reading. Keyboard majors and minors only. Fulfills the major ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours. Music Majors and Minors only.

### **MUSC 3740 - Weber State Concert Choir**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Fulfills the major ensemble requirement for music majors and minors. Membership by audition or consent of instructor. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3741 - Chamber Choir**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A highly select group of approximately 24 singers performing the entire range of small choir literature. Fulfills the chamber ensemble requirement for music majors. By audition only. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3743 - Vocal Chamber Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Training in small vocal groups such as trios, quartets, and sextets. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3744 - Musical Theatre**

**Credits: (1-2)**

Rehearsal and performance of musical theatre productions. By audition only. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3745 - Weber State Community Choir**

**Credits: (1)**

**Typically taught:**

**(Evening only.)**

Membership by audition or consent of instructor. Does not fulfill any ensemble requirement for music majors or minors. May be repeated 7 times with a maximum of 8 credit hours. Note: This course is not currently active.

### **MUSC 3750 - Symphonic Band**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Emphasis is on the study and preparation of modern symphonic band literature. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3751 - Wind Ensemble**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Emphasis is on study and performance of literature for selected wind and percussion ensembles of varying size. Participants may be required to participate in symphonic band. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3752 - Marching Band**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

By audition and/or consent of the director to students on flags, rifles, and band instruments. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3753 - Jazz Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the chamber ensemble requirement for music majors. May be repeated up to 10 times.

### **MUSC 3754 - Percussion Ensemble**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3755 - Instrumental Chamber Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Training in instrumental chamber ensembles such as trios, quartets, quintets, and sextets. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3756 - Pep Band**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Plays at athletic functions using contemporary jazz, rock, and popular music. By audition. Does not fulfill any ensemble requirement for music majors or minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3760 - Weber State Symphony Orchestra**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Full symphony orchestra instrumentation. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3761 - Chamber Orchestra**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the chamber ensemble requirement for music majors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3762 - Theatre Orchestra**

**Credits: (1-2)**

Membership by audition or consent of instructor. Instrumentation determined by the music production being presented. Does not fulfill any ensemble requirement for music majors or minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3763 - Guitar Ensemble**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Membership by audition or consent of instructor. Fulfills the major ensemble requirement for music majors and minors. May be repeated 7 times with a maximum of 8 credit hours.

### **MUSC 3820 - The Art and Science of Recording I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Utilizing the "flipped classroom" model, students will learn the fundamentals and best practices of capturing live audio in a multimedia-rich environment that is self-paced. In the classroom, students will receive face-to face instruction from experienced producers, engineers, and visionaries delivering real world experience and valuable career guidance. Prerequisite: Acceptance in the Sound Production/Recording program.

### **MUSC 3821 - The Art and Science of Recording II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Utilizing the "flipped classroom" model, students will learn the fundamentals and best practices of capturing live audio in a multimedia-rich environment that is self-paced. In the classroom, students will receive face-to face instruction from experienced producers, engineers, and visionaries delivering real world experience and valuable career guidance. Prerequisite: 80% or better completion of The Art and Science of Recording I. Acceptance in the Sound Production/Recording program.

### **MUSC 3822 - Instrumental Conducting I-II**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Basic conducting technique and advanced techniques for conducting instrumental ensembles. Prerequisite: MUSC 1120/MUSC 1140. Music Majors and Minors only

### **MUSC 3823 - Instrumental Conducting I-II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Basic conducting technique and advanced techniques for conducting instrumental ensembles. Prerequisite: MUSC 1120 and MUSC 1140. Music Majors and Minors only

### **MUSC 3824 - Music for Elementary Teachers**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

Methods and materials for teaching elementary school music (grades K-6) including skill development on selected elementary classroom instruments.

### **MUSC 3840 - Form and Analysis**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

A study of basic musical form with particular emphasis on the most important contrapuntal and homophonic styles from the Baroque Period forward. The course coordinates the study of the forms of individual genres with their history and role in the continuous development of music. Prerequisite: MUSC 2120 and 2140. Music Majors and Minors only

### **MUSC 3842 - Producing the School Musical**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] odd years**

A detailed study of musical theatre and the practical application of skills, techniques, and materials necessary for production in secondary schools. Music Majors and Minors only

### **MUSC 3851 - Stringed Instrument Pedagogy I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

An in-depth study of pedagogical methods employed in teaching the four orchestral stringed instruments to beginning and intermediate level students. Prerequisite: MUSC 2871/MUSC 2872. May be repeated up to 9 credit hours. Music Majors and Minors only

### **MUSC 3852 - Stringed Instrument Pedagogy II**

**Credits: (2)**

Continued in-depth study of pedagogical methods employed in teaching the four orchestral stringed instruments with a focus on upper intermediate and advanced level students. Prerequisite: MUSC 3851. Music Majors and Minors only

### **MUSC 3872 - Choral Conducting I-II**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] even years**

Basic conducting technique and advanced techniques for techniques for conducting choral ensembles. Prerequisite: MUSC 1120 and MUSC 1140. Music Majors and Minors only

### **MUSC 3882 - Choral Conducting I-II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] even years**

Basic conducting technique and advanced techniques for techniques for conducting choral ensembles. Prerequisite: MUSC 1120 and MUSC 1140. Music Majors and Minors only

### **MUSC 3924 - Music Teaching and Learning in the Elementary School**

**Credits: (4)**

As an introduction to the role of music in the lives of children, this course provides opportunities for music majors to develop their rapport with elementary students. The course will include selecting literature and designing effective instructional strategies aligned with the Utah K-6 music core curriculum as well as the national music standards. Students will be introduced to different philosophical and pedagogical approaches as well as develop and implement age-appropriate assessment strategies. Students will develop their understanding of music's role in an interdisciplinary curriculum. A field experience with elementary-age students is required. Prerequisite: Completed Piano Proficiency. Music Majors and Minors only

### **MUSC 3991 - Junior Recital**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Applied instruction in preparation for and public performance of a 30 minute recital. Prerequisite: Piano proficiency. Music Majors and Minors only

### **MUSC 4302 - Keyboard Pedagogy I-II**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] odd years**

Comprehensive study of performance pedagogy. Music Majors and Minors only

### **MUSC 4312 - Keyboard Pedagogy I-II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] even years**

Comprehensive study of performance pedagogy. Music Majors and Minors only

### **MUSC 4402 - Vocal Pedagogy I-II**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] even years**

Comprehensive study of the principles, rules and procedures pertaining to the development, exercise, and practice of the art of singing and the science of teaching singing. Music Majors and Minors only

### **MUSC 4412 - Vocal Pedagogy I-II**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem] odd years**

Comprehensive study of the principles, rules and procedures pertaining to the development, exercise, and practice of the art of singing and the science of teaching singing. Music Majors and Minors only

### **MUSC 4610 - Applied Keyboard: Piano**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music Majors or Minors with a Keyboard Emphasis only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 4611 - Applied Keyboard: Organ**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 4620 - Applied Voice**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4630 - Applied Woodwinds: Flute**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4631 - Applied Woodwinds: Oboe**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4632 - Applied Woodwinds: Clarinet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4633 - Applied Woodwinds: Saxophone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4634 - Applied Woodwinds: Bassoon**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4640 - Applied Brass: Trumpet**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4641 - Applied Brass: French Horn**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4642 - Applied Brass: Trombone**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4643 - Applied Brass: Euphonium/Tuba**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4650 - Applied Strings: Violin**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4651 - Applied Strings: Viola**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4652 - Applied Strings: Violoncello**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4653 - Applied Strings: String Bass**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4654 - Applied Strings: Guitar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

**MUSC 4655 - Applied Strings: Harp**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 4660 - Applied Percussion**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors. May be repeated 3 times with a maximum of 4 credit hours.

### **MUSC 4673 - Private Instruction**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Music majors and minors only. For vocal or instrumental students. Two hours of instruction/week. Minimum of 18 hours/week practice required. One-half hour special assignment. By consent of instructor only. May be taken for credit up to three times in any area of specialization. Students are responsible for contacting individual instructors to schedule lessons. See the Music website for a list of private instructors.

### **MUSC 4771 - Stringed Instrument Literature I**

**Credits: (2)**

A study of music for technical development, plus solo, and chamber music literature of the stringed instruments of the orchestra. This class will focus on music for beginning and intermediate students. Prerequisite: MUSC 2871/MUSC 2872. Music Majors and Minors only

### **MUSC 4772 - Stringed Instrument Literature II**

**Credits: (2)**

Advanced study of music for technical development, plus solo, and chamber music literature of the stringed instruments of the orchestra. This class will focus on music for upper intermediate and advanced students. Prerequisite: MUSC 4771.

### **MUSC 4801 - College of Arts & Humanities Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **MUSC 4820 - Pro Tools 101**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course covers basic Pro Tools principles. It provides everything you need to complete a Pro Tools project from initial set up to final mix-down. The course focuses on Pro Tools software and covers a multitude of new functions and feature enhancements. Whether your project involves recording live instruments, MIDI sequencing of software synthesizers, or audio editing or region looping, this course will give you the basic skills to succeed. May be taken twice for 4 credits.

### **MUSC 4821 - Pro Tools 110**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides a more detailed look at the Pro Tools system above and beyond the knowledge you gained in the Pro Tools 101 course. It covers all the key concepts and skills needed to operate a Pro Tools system at the User level. The course along with Pro Tools 101: An Introduction to Pro Tools, provides the foundation to Pro Tools Certification and for the later 200-series of courses on Pro Tools music and post-production. May be taken twice for 4 credits. Prerequisite: MUSC 4820 (Pro Tools 101).

### **MUSC 4822 - Junior High/ Middle School Music Methods**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Methods of instruction, organization and presentation of appropriate content and musical literature in junior high/middle school music classes. Prerequisite: Piano proficiency Music Majors and Minors only

### **MUSC 4830 - Directed Readings**

**Credits: (1-3)**

To be arranged. May be taken for a maximum of 7 hours of credit. Music Majors and Minors only

### **MUSC 4842 - High School Music Methods**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Methods of instruction, organization and presentation of appropriate content and musical literature in high school music classes. Emphasis is placed on the administration of the school music program. Prerequisite: Piano proficiency and MUSC 4822. Music Majors and Minors only

### **MUSC 4860 - Internship in Music**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Practical synthesis and application of knowledge and skills gained in pedagogy and methods courses. Students plan and implement lessons, document progress, and evaluate their teaching assignments in group or private settings. May be repeated for a maximum of 12 credits. Music Majors and Minors only

### **MUSC 4890 - Cooperative Work Experience**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A continuation of MUSC 2890. Open to all students. May be repeated to a maximum of 6 credits. Music Majors and Minors only

### **MUSC 4900 - Senior Project--BA in Music**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course will serve as a capstone project for the BA in Music. It will be taken during a student's final semester, and shall demonstrate the student's ability to synthesize the various components of her musical education. In conjunction with the general syllabus (attached), this individualized course will be governed by a contract (also attached). Depending upon the student's chosen track within the BA, examples of projects might include a major composition, a research paper, an analysis paper, a lecture-recital, etc. Prerequisite: Instructor approval.

### **MUSC 4910 - Opera Production**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Preparation of operatic scenes and music. Music and staging rehearsal venue for the preparation of fully staged opera productions. May be repeated up to 10 times for credit hours.

### **MUSC 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 3 times with a maximum of 4 credit hours. Music Majors and Minors only

### **MUSC 4991 - Senior Recital**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Private instruction in preparation for and public performance of a one hour recital. Music Majors and Minors only

### **MUSC 4992 - Senior Project**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Music education majors have the option of completing a senior project in lieu of the senior recital and should register for MUSC 4992 during the semester in which they plan to complete the project. Requires submission of a project proposal and approval by a faculty committee. Prerequisite: MUSC 4830. Music Majors and Minors only

### **MUSC 4995 - Capstone Project**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Under instructor guidance and mentorship, the student will submit a Capstone proposal based on the culmination of coursework and garnered experience. This may include, but is not limited to, producing and/or engineering a multitrack recording session with live musicians, creating the soundtrack for a video, or a scholarly presentation based on any relevant topic from the sound and recording BOK. Capstone completion required for minor. Prerequisite: Acceptance in the Sound Production/Recording program.

### **NET 1030 - Foundations of Computing**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

This course follows the core body of knowledge specified by the ACM which provides students with a broad overview of topics they might encounter within the major areas of computing. The course is taught at an introductory level and includes topics such as: history of computers, computer architecture, operating systems, web design and development, programming, database, software engineering, networking, and more. Cross-listed with CS 1030 and WEB 1030.

### **NET 1300 - Networks and Emerging Technologies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce the fundamentals of voice and data networking technologies. The course includes topics such as history of telecommunications, history of data networking, study of industry, transport media, common networking protocols, and emerging technologies.

### **NET 2010 - Business English Applications**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

Includes Business English essentials: grammar, punctuation, and proofreading. Keyboarding 40 wpm recommended.  
Prerequisite: WEB 1700 or WEB 1701/WEB 1501.

### **NET 2200 - Microcomputer Operating Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Study of hardware and software components through managing programs, directories, files, and disks. Includes integrating applications, customizing windows, and managing printing.

### **NET 2300 - Introduction to LAN Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Local area networking concepts including needs analysis, applications, topologies and configurations, and troubleshooting using hands-on labs. Prerequisite/Co-requisite: NET 2200 or instructor approval.

### **NET 2415 - Cisco TCP/IP Routing Protocols and Router Configuration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is the first in a two-course series designed to prepare students to pass the examinations for Cisco Certified Network Associate (CCNA). This course covers the OSI model, network components and topologies, IP addressing, beginning router configuration and routing protocols. Prerequisite: NET 2300 or CS 2705.

### **NET 2435 - Cisco Advanced LAN and WAN Switching and Routing Theory and Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is the second in a two-course series designed to prepare students to pass the examinations for Cisco Certified Network Associate (CCNA). This course covers advanced router configurations, LAN switching theory and VLANs, advanced LAN and LAN switched design, Novell IPX, WAN theory design and technology, PPP, frame relay, ISDN, network troubleshooting, national SCANS skills, and threaded case studies. Prerequisite: NET 2415.

### **NET 2610 - NetWare Administration**

**Credits: (3)**

This is the introductory course to Novell Administration involving setting up, managing, and using basic network services, including file systems, network printing, security, and Z.E.N. Works. After completing this course and successfully passing the Novell test, the candidate becomes a Certified Novell Administrator (CNA). Prerequisite: WEB 1700 or WEB 1701/WEB 1501 and WEB 1702/WEB 1502 and WEB 1703/WEB 1503.

## **NET 3200 - Linux Systems Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course gives students a solid foundation in the fundamentals of the Linux operating system. Students gain system-level experience through problem-solving exercises at the command line and in the graphical user interface (GUI). By the end of the course, students will have learned the major, essential, command-line commands necessary to be accomplished users of Linux. Prerequisite: NET 2200 or instructor approval.

## **NET 3210 - Advanced Linux Systems Administration**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course presents advanced administrative skills common to mid- to senior-level administrators in an enterprise environment. Students learn how to apply security to network users and resources, manage and compile the Linux kernel, and troubleshoot network processes and services. Prerequisite: NET 3200.

## **NET 3300 - Advanced LAN Security Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course provides an in-depth look into the field of network security. Specific topics to be examined include networking protocols and threats, authentication models, cryptography, layer 2 security, application security, social engineering, access control lists, firewalls, risk management, and OS hardening. Prerequisite: NET 2300 or instructor permission.

## **NET 3310 - Network Server Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Students will learn how to install, configure, manage, and troubleshoot hardware and applications in a Server environment. With a specific focus on Server fundamentals, this course will teach students how to install servers, configure active directories, create and manage users, install server roles and features, perform diagnostics, and troubleshoot malfunctioning servers. Prerequisite: NET 2300.

## **NET 3415 - Cisco CCNPB-Advanced Router Configuration**

**Credits: (3)**

Building Scalable Cisco Networks (BSCN). Addresses tasks network managers and administrators need to perform when managing access and controlling overhead traffic in growing routed networks once basic connectivity has been established. Discusses router capabilities used to control traffic over LANs and WANs, as well as connecting corporate networks to an Internet Service Provider (ISP). Prerequisite: NET 2435 or CCNA Certification or CS 3705.

## **NET 3425 - Cisco CCNP-Building Cisco Switched Networks**

**Credits: (3)**

Building Cisco Multilayer Switched Networks (BCMSN). Teaches network administrators how to build campus networks

using multilayer switching technologies over high speed Ethernet. Teaches how routing and switching concepts and implementations technologies work together. Prerequisite: NET 2435 or CCNA Certification.

### **NET 3435 - Cisco CCNP--Remote Access Networks**

**Credits: (3)**

Teaches how to build a remote access network to interconnect central sites to branch offices and home office/telecommuters. Further teaches students how to control access to the central site as well as maximizes bandwidth utilization over remote links. Prerequisite: NET 2435 or CCNA Certification.

### **NET 3445 - Cisco CCNP--Internetwork Troubleshooting**

**Credits: (3)**

Hands-on lab exercises. Covers developments in Cisco IOS and Catalyst software. Teaches how to baseline and troubleshoot an environment using Cisco routers and switches for multiprotocol client hosts and servers connected with: Ethernet, Fast Ethernet, and Token Ring LANS; and Serial, Frame Relay and ISDN BRI WANS. Prerequisite: NET 2435 or CCNA Certification.

### **NET 3550 - Supervising Information Technology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Application of supervisory functions in network management and multimedia settings including planning, structure, design, implementation, evaluation, problem-solving, and human resources. Prerequisite: NET 2300 or WEB 2300.

### **NET 3600 - Principles of Business/Marketing Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course includes professionalism, curriculum, standards, counseling, tech prep, competency-based testing, research, and current issues and trends in Business/Marketing Education. Along with advanced electronic presentations, this course will include a review of other technologies used in teaching. Prerequisite: WEB 1700; or WEB 1701/WEB 1501 and WEB 1702/WEB 1502 and WEB 1703/WEB 1503.

### **NET 3610 - Methods of Teaching Marketing Education Subjects**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Analysis and research into methods of teaching business and marketing subjects with emphasis on teaching demonstrations and practices, objectives, outcome measurements, testing, and grading. Prerequisite: WEB 1700 or WEB 1701/WEB 1501 and WEB 1702/WEB 1502 and WEB 1703/WEB 1503.

### **NET 3710 - Switching and Transmission Network Systems Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course covers management of switching and transport systems and their technologies from industry carrier systems to private business networks. Also included are cellular/mobile/fixed wireless technologies including network elements,

routing, packet delivery, handoff technology, and the evolution of generations of wireless technologies and systems. Prerequisite: NET 2300. Co-Requisite: NET 3715.

### **NET 3715 - Transmission Network Applications**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Hands-on labs working with TDM lines and trunks, transport, IP routing, and SIP. Applications will be run on live LAN/WAN networks. Also, the course includes discussion of new technologies. Prerequisite: NET 2300. Co-Requisite: NET 3710.

### **NET 3720 - Advanced Transport Media**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An examination of the growing wireless technologies, fiber optics, their roles within the telecommunications data and media industries and to introduce associated fiber optic technical skills. Prerequisite: NET 3710 and NET 1300.

### **NET 3730 - Cyber Policy and Ethics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Explores how the structural, competitive, economic, environmental, and ethical forces affect the continuing transformation of the networking industry both domestically and internationally. Discussion of the impact of contemporary issues on the provider and the consumer of telecommunication services including the legal and ethical requirements and ramifications of electronic privacy are included. Prerequisite: NET 3710 and NET 1300.

### **NET 4700 - Data and Voice Network Design**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

As a capstone course, students will design data and voice networks using industry metrics and rationale. Architecture, technologies, and standards associated with the design and management of modern data and voice networks will be covered. Prerequisite: NET 3710, CS 2130.

### **NET 4740 - Security Vulnerabilities and Intrusion Mitigation**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

A treatment of security issues related to computers and computer networking. This course is designed for advanced users, system administrators and network administrators. The course covers TCP/IP security issues, security policies, packet filtering, Internet firewall architecture and theory, detecting and monitoring unauthorized activity, password authentication, intrusion detection and prevention and other security issues involving Linux, UNIX and Microsoft Windows operating systems. A team project is included. Prerequisite: MATH 1040, CS 2130, PS 3250, and CS 3705.

### **NET 4760 - Network/Telecommunications Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Must be completed senior year in a network/telecommunications environment with company placement and outcomes approved by the department. Prerequisite: NET 4700 (may be taken concurrently). Simultaneous enrollment in NET 4790 is required.

### **NET 4790 - Network/Telecommunications Senior Project**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Capstone project applying the principles of network/telecommunications to the development of a network/telecommunications system within a company. Prerequisite: NET 4700 (may be taken concurrently). Simultaneous enrollment in NET 4760 is required.

### **NET 4990 - Senior Project**

**Credits: (3)**

Research, analysis, presentation, and discussion of topics relative to graduating majors and minors. Prerequisite: WEB 2860 or equivalent.

### **NET 6600 - Principles of Business/Marketing Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This graduate-level course includes professionalism, curriculum, standards, counseling, tech prep, competency-based testing, research, and current issues and trends in Business/Marketing Education. Along with advanced electronic presentations, this course will include a review of other technologies used in teaching. NET 6600 may be substituted for NET 3600 in the undergraduate Business Education Composite Teaching major, Business Education Teaching minor, or Business/Marketing Teaching minor for those working on a second bachelor's degree. Prerequisite: WEB 1700; or WEB 1701/WEB 1501, WEB 1702/WEB 1502, and WEB 1703/WEB 1503 and a bachelor's degree.

### **NET 6610 - Methods of Teaching Business Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This graduate-level course includes an evaluation and application of the methods of teaching business and marketing subjects with emphasis on teaching demonstrations and practices, objectives, outcome measurements, testing, and grading. The students will write a unit-long Learning Activity Package (LAP) and will demonstrate teaching in a business/marketing course. NET 6610 may be substituted for NET 3610 in the undergraduate Business Education Composite Teaching major, Business Education Teaching minor, or Business/Marketing Teaching minor for those working on a second bachelor's degree. Prerequisite: WEB 1700; or WEB 1701/WEB 1501, WEB 1702/WEB 1502, and WEB 1703/WEB 1503; and a bachelor's degree.

## **NEUR 2050 - Introduction to Neuroscience**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring or Summer [Full Sem]**

Introduction to the interdisciplinary field of neuroscience, which examines the function and dysfunction of the human and animal nervous system. The course spans the major areas of neuroscience including cellular/molecular factors, neuron physiology, brain structure and function, and medical/clinical applications. The topics addressed are critical to multiple fields of study (e.g. health sciences, psychology, and zoology) and provides the skills necessary for students to succeed in upper-division courses related to the brain and behavior. Prerequisite: none; recommend some background in basic biology, chemistry, or psychology.

## **NEUR 3750 - Cognitive and Behavioral Neuroscience**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

This course challenges students to apply knowledge of nervous system structure and function to higher order cognitive functions and motor abilities including attention, memory, emotions, language and symbolic functions, reasoning, decision making, problem solving, voluntary movement, and consciousness. Prerequisite: NEUR 2050 or PSY 2730 or instructor approval.

## **NEUR 3850 - Clinical Neuroscience**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

This is an advanced undergraduate course primarily for Neuroscience minors, but open to all students. Students will apply a knowledge of neuroanatomy, neurophysiology, cognition, and behavior to discuss and solve in-depth clinical case studies in the classroom setting. The course will consist of instructor-led and student-led activities to explore a range of nervous system disorders. Prerequisite: NEUR 2050 or PSY 2730 or consent of instructor.

## **NEUR 4800 - Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised participation in projects and/or primary research with a faculty mentor in various areas of neuroscience. Limited to advanced students upon consent of neuroscience faculty mentor and the Neuroscience Program director. A paper written in APA style and an oral report are required at the end of the semester. Prerequisite: NEUR 2050 (Introduction to Neuroscience), PSY 3600 (Statistics) or equivalent, and faculty mentor permission. Students may enroll in this course twice for a maximum of 6 credit hours.

## **NEUR 4810 - Experimental**

**Credits: (1-6)**

**Typically taught:**

**Spring [Full Sem] odd years**

May be repeated 5 times for a maximum of 6 credit hours.

### **NEUR 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent readings or secondary research on advanced neuroscience special topics under the direction of a faculty mentor. For each hour of credit in a readings project the student is required to read an appropriate number of primary research journal articles and book chapters. A paper written in APA style and oral report are required at the end of the term. Prerequisite: NEUR 2050 (Introduction to Neuroscience), PSY 3600 (Statistics) or equivalent, and faculty mentor permission. Students may enroll in this course twice for a maximum of 6 credit hours.

### **NEUR 4900 - Topics in Neuroscience**

**Credits: (2-3)**

**Typically taught:**

**Spring [Full Sem] or as needed**

This course offers an in-depth exploration of selected topics and issues in the discipline. The prerequisite may be waived or replaced by an equivalent at the discretion of the instructor in consultation with the Neuroscience Program Director. Prerequisite: NEUR 2050 or PSY 2730 or consent of instructor. The course may be taken up to three times for a maximum of six credit hours.

### **NRSNG 2100 - Pharmacology for Nurses 1**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem]**

Basic pharmacological treatments used by the nurse to promote health across the lifespan. Included in the course will be administering medications safely through various routes and specific agents that affect health and wellbeing. Credit hours (3): 3 lecture hours per week. Prerequisite: Admission to the Nursing Program. Co-Requisite: NRSNG 2200 and NRSNG 2250.

### **NRSNG 2200 - Nursing Foundations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem]**

Students are socialized into the profession of nursing, taught scope of practice, rules and ethics. Building nursing care on a health/wellness continuum is introduced. Students begin the nursing process through assessment of health and wellness in individuals, families and populations throughout the lifespan, and in diverse cultures and environments.

Credit hours (3): 3 lecture hours per week. Prerequisite: Admission to the Nursing Program. Co-Requisite: NRSG 2100 and NRSG 2250.

### **NRSG 2250 - Nursing Foundations Clinical**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students participate in clinical experiences, with emphasis on clinical application of the nursing process, patient care skills and professional behaviors. The focus is on basic skills, assessment, medication administration, communication, and promoting wellness. Prerequisite: Admission to the Nursing Program. Co-Requisite: NRSG 2100 and NRSG 2200.

### **NRSG 2251 - Foundations of Nursing Laboratory**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Students participate in laboratory experiences, with emphasis on application of the nursing process, patient care skills and professional behaviors. The focus is on basic skills, assessment, medication administration, communication, and promoting wellness. Prerequisite: Admission to the ADN Nursing Program is a pre-requisite, and registration in NRSG 2100, NRSG 2200 and NRSG 2250 are co-requisites.

### **NRSG 2283 - Directed Readings and Projects**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

(Maximum of 3 semester hours per year). Prerequisite: Instructor approval.

### **NRSG 2300 - Patient Centered Nursing Care 1**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Focused theory with emphasis on nursing care across the lifespan for patients experiencing changes in health status. Focus will be on identifying chronic diseases and developing a nursing strategy to promote wellness and quality of life for the patient. Clinical will focus on application of theory related to nursing care of patients in multiple environments and across the life-span. Credit hours (3): 3 lecture hours per week. Prerequisite: NRSG 2100, NRSG 2200, and NRSG 2250. Co-Requisite: NRSG 2350.

### **NRSG 2350 - Patient Centered Nursing Care Clinical 1**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Clinical course focused on application of concepts related to nursing care of patients in multiple environments and across the lifespan in various clinical settings. Prerequisite: NRSNG 2100, NRSNG 2200, and NRSNG 2250. Co-Requisite: NRSNG 2300.

### **NRSNG 2351 - Patient Centered Nursing Care Laboratory**

**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Laboratory course focused on application of concepts related to nursing care of patients in multiple environments and across the lifespan in the nursing practice and simulation labs. Prerequisite: Admission to Nursing Program, NRSNG 2100, NRSNG 2200, NRSNG 2250, and NRSNG 2251. Co-Requisite: NRSNG 2300 and NRSNG 2350.

### **NRSNG 2500 - Patient Centered Nursing Care 3**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem, Online]**  
**Spring [Full Sem, Online]**  
**Summer [Full Sem, Online]**

Focused theory with emphasis on nursing care across the lifespan for patients experiencing changes in health care status. Focus will be on caring for patients in the acute care setting with a goal of restoring optimal health and wellness. Prerequisite: NRSNG 2300, NRSNG 2350, or Admission to the PN to RN nursing program. Co-Requisite: NRSNG 2550 and NRSNG 3100.

### **NRSNG 2550 - Patient Centered Nursing Care Clinical 3**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Clinical course focused on application of concepts related to nursing care of patients in acute care settings and across the lifespan in simulation and various clinical settings. Prerequisite: NRSNG 2300, NRSNG 2350, or Admission to the PN to RN Program Co-Requisite: NRSNG 2500 and NRSNG 3100.

### **NRSNG 2551 - Patient Centered Nursing Care Laboratory**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Prerequisite: NRSNG 2100, NRSNG 2200, NRSNG 2250, NRSNG 2251, NRSNG 2300, NRSNG 2350, and NRSNG 2351. Co-Requisite: NRSNG 2500, NRSNG 2550, and NRSNG 3100.

### **NRSNG 3100 - Pharmacology for Nurses 2**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem, Online]**  
**Spring [Full Sem, Online]**

### **Summer [Full Sem, Online]**

Advanced pharmacological treatments used by the nurse to promote health across the lifespan. Included in the course will be administering medications safely through intravenous and other routes along with specific agents that affect health and well-being. Credit hours (3): 3 lecture hours per week. Prerequisite: NRSNG 2300, NRSNG 2350, or admission to the PN to RN Program. Co-Requisite: NRSNG 2500 and NRSNG 2550.

### **NRSNG 3200 - Complex Patient Centered Nursing Care 1**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Theory focuses on nursing care of patients with complex changes in health status requiring extensive multifaceted resources. Credit hours (3): 3 lecture hours per week. Prerequisite: NRSNG 2500, NRSNG 2550, and NRSNG 3100. Co-Requisite: NRSNG 3300 and NRSNG 3350.

### **NRSNG 3300 - Entry Into Nursing Professional Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Theory focuses on synthesis of nursing knowledge and skills necessary for entrance into registered nursing practice and includes preparation for licensing exams and synthesis of previous concepts. Credit hours (3): 3 lecture hours per week. Prerequisite: NRSNG 2500, NRSNG 2550, and NRSNG 3100. Co-Requisite: NRSNG 3200 and NRSNG 3350.

### **NRSNG 3350 - Entry Into Nursing Professional Practice Preceptorship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Clinical preceptorship focuses on synthesis of nursing knowledge, skills, and conduct necessary for entrance into registered nursing practice. Credit hours (3): 9 clinical hours per week. Prerequisite: NRSNG 2500, NRSNG 2550, and NRSNG 3100. Co-Requisite: NRSNG 3200 and NRSNG 3300.

### **NRSNG 4000 - Culture and Health Care**

**Credits: (2)**

This course is an exploration of culture, health care issues and experiences at the local, regional, national, or international levels. The learner will study and compare the health care of a selected country/community from the cultural, political and educational perspective. Credit hours (2), 2 lecture hours per week. Prerequisite: Admission to Weber State University; recommended for nursing students, Licensed Nurses, and other healthcare providers.

### **NRSNG 4001 - Clinical Experience Related to Culture and Health Care of Nurses**

**Credits: (1-3)**

This course is a Study Abroad Experience for Health Care Workers to explore the relationship between culture, health care and nursing issues at local, regional, national, and/or international levels. Information gained during NRSNG 4000

will assist the student to put into practice the concepts learned. Credit hours (1-3). Lab hours depend on the country visited. Prerequisite/Co-requisite: Co-requisite or prerequisite: NRSG 4000 related to area being visited.

### **NRSG 4010 - Interdisciplinary Health Care Teams**

**Credits: (3)**

This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact and learn in the interdisciplinary environment of a health care setting. Cross-listed with DENT 4010 & HTHS 4010. May be repeated once up to 6 credit hours.

### **NRSG 4045 - ELNEC: End-of-Life Nursing Education Consortium**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed from the nationally recognized guidelines of the End-of-Life Nursing Education Consortium (ELNEC) project. These guidelines are revised regularly to reflect current advances in the field. The purpose of the ELNEC project is to support the knowledge and skills of nurses in providing palliative care to patients who are experiencing serious illness or end of life. ELNEC content focuses on nursing care at the end of life; pain management; symptom management; ethical/legal issues; cultural considerations in end-of-life care; communication; loss, grief, bereavement; and preparation for and care at time of death. Prerequisite: Admission to a nursing program or current registered nurse.

### **NRSG 4050 - Nursing Assessment Across the Life Span**

**Credits: (3)**

This course provides the theory requisite for the systematic examination and analysis of subjective and objective health assessment data obtained during the health assessment process. The health status of a client will be determined through the process of differential analysis of both the anecdotal evidence provided by the client and empirical evidence gathered during the physical examination. With this evidence, students will learn to apply the scientific process of formulating and testing hypothetical diagnoses. The overall purpose will be focused upon developing strategies and skills to assess the health care needs of people across the life span. Students are challenged to identify normal assessment findings and critically analyze variations from normal.

### **NRSG 4060 - Oncology Nursing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

Investigate and analyzes broad epidemiological and biological origins of cancer. Then individual common cancers are studied including etiology, therapies and specific nursing interventions. (Hybrid)

### **NRSG 4070 - Threats and Crises: Nursing Response**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Terrorism, war and natural disasters present new challenges to nurses and requires they be trained to care for resultant

victims. Learning emphasizes crisis management, specific patient/health issues and unique nursing interventions. (Hybrid)

### **NRSNG 4080 - Nursing: High Risk Adult**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Advanced theories and concepts of nursing practice are explored in relation to adults experiencing life threatening alterations in health. (Hybrid)

### **NRSNG 4090 - Nursing: High Risk OB/Pediatric Patient**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

At-risk families need multiple interventions from knowledgeable care givers to assist them through the intricacies of obtaining quality health care. Students identify, then integrate, complex nursing strategies in situations involving parents, infants, and children in high risk childbearing populations. (Hybrid).

### **NRSNG 4100 - Complex Patient Centered Nursing Care 2**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Nursing 4100 is designed to assist students in learning theory and concepts related to nursing care of patients with chronic conditions, including illness implications and education for patients and families. Topics will include areas such as genetic conditions, caregiver stress and grieving, as well as advocacy for vulnerable populations. The course will incorporate application of advanced skills and knowledge to address coordination of complex care issues and healthcare resources inherent in caring for patients and families experiencing chronic conditions.

### **NRSNG 4200 - Scholarship for Evidence-Based Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Nursing 4200 focuses on a basic understanding of how multiple sources of evidence are developed and integrated into an evidence-based nursing environment. These sources include the formal research process, quality improvement data, clinical judgment, inter-professional perspectives, and patient preference. This course will include the application of advanced knowledge and skills required for translating reliable evidence into evidence-based practice and clinical judgments. The course will also support the establishment of a research-base for the student's personal nursing practice, as well as influence the continual improvement of healthcare quality and safety.

## **NRSG 4300 - Healthcare Policy and Decision Making**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Nursing 4300 will explore healthcare policies, including financial and regulatory policies, which directly and indirectly influence nursing practice. These policies shape responses to organizational, local, national, and global issues of equity, access, affordability, and social justice. Students will apply advanced skills and knowledge to identify, analyze and problem-solve variables affecting nursing decisions and healthcare policy encountered in nursing practice. Topics will be presented that provide an overview of legal and ethical principles and theories, emphasizing the role of ethics and healthcare policy in nursing.

## **NRSG 4392 - Principles of Care Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

The Principles of Care Management course presents students with the opportunity to gain insight and understanding into the various roles that nurses play in patient care management. Learners will have the opportunity to examine the major characteristics of care management including the forces that influence patient care planning. During the course the student will learn the necessary skills to create and apply a care management plan to a specific patient population. The course is appropriate for individuals who have an interest in the care management field and who are focusing their careers working with populations and individuals over their life-time of care within illness and wellness issues.

## **NRSG 4400 - Population Health in Nursing**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Nursing 4400 explores nursing in diverse populations in a local and global context emphasizing disease prevention, health promotion and cultural competency for the improvement of health status throughout the lifespan. Focus will include disparities in health and health care services, and the impact of behavior and lifestyle choices. Course projects will incorporate application of advanced skills and knowledge related to health needs and health promotion at the individual and community level. Students will examine frameworks of community and public health, assess and analyze prevalent population-based health issues, and explore population-based interventions.

## **NRSG 4500 - Nursing Management and Leadership**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Nursing 4500 is designed to facilitate student learning and application of advanced skills and knowledge related to nursing leadership and nursing management. In accordance with this, students will explore and examine personal and professional characteristics of nurse leaders and nurse managers which will prepare them to lead through evidence-based principles. Students will also gain experience in communication and collaboration with community partners and interdisciplinary teams, which will prepare them to assist in the advancement of the profession of nursing through empowerment, change, and anticipation of nursing's future.

## **NRSG 4600 - Communication, Collaboration, and Information Management in Healthcare**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Nursing 4600 will incorporate application of advanced skills and knowledge related to information management, patient care technology, and effective interpersonal communication modalities. These skills are critical in preparing nurses to deliver quality patient care in a variety of healthcare settings. Students will examine information management tools used to monitor: outcomes of care processes, patient care technologies essential to ensuring high quality, safe patient care, and communication and collaboration skills necessary to providing optimal patient-centered care.

## **NRSG 4700 - Forensic Nursing**

**Credits: (3)**

This course explores nursing in the field of forensics in both criminal and civil contexts. The different roles and responsibilities of forensic nurses will be explored and best-practices for evidence collection and preservation will be reviewed. Holistic care of victims and families will be emphasized. Students will review victimology, evaluate prevalent population-based health issues, and explore forensic nursing interventions.

## **NRSG 4830 - Directed Theoretical Readings**

**Credits: (1-3)**

Involves a contract with faculty to include reading and writing of materials relevant to baccalaureate level nursing. Subject emphasis arranged with faculty. May be repeated once up to 6 credit hours.

## **NRSG 4840 - Departmental Honors in Nursing Seminar**

**Credits: (3)**

Completion of this course is required for students participating in the honors program in nursing. Students explore scholarly activity in nursing through the guided completion of one of three different learning options: creating a research proposal, writing a scholarly paper, or performing a service project. Learning through active and individualized scholarly inquiry is the focus of this class.

## **NRSG 4850 - Study Abroad**

**Credits: (1-6)**

**Variable Title**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated 5 times up to 6 credit hours.

### **NUCM 4103 - Radiopharmaceuticals and Dosages**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Radiopharmacology, characterization of radiopharmaceuticals used in performing examinations and calculation of dosages.

### **NUCM 4203 - Scanning and Imaging Procedures I**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Organ concentration, excretion and absorption, measurements and imaging.

### **NUCM 4213 - Scanning and Imaging Procedures II**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Organ concentration, excretion and absorption, measurements and imaging.

### **NUCM 4223 - Nuclear Cardiology**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Pathology, indications for examination and procedures in nuclear cardiology.

### **NUCM 4303 - Radionuclide Physics & Instrumentation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Production and properties of radionuclides, decay schemes, radiation measurements and special characteristics of radiopharmaceuticals.

### **NUCM 4333 - Quality Assurance**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Nuclear Medicine departmental policies and procedures.

**NUCM 4861 - Clinical Education**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

A minimum of 24 hours per week in an active Nuclear Medicine department.

**NUCM 4862 - Clinical Education**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

A minimum of 24 hours per week in an active Nuclear Medicine department.

**NUCM 4863 - Clinical Education**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

A minimum of 24 hours per week in an active Nuclear Medicine department.

**NUCM 4912 - Comprehensive Review**

**Credits: (2)**  
**Typically taught:**  
**Summer [Full Sem]**

Review of learned material.

**NUCM 4991 - Seminar**

**Credits: (1)**  
New technology, procedures and equipment.

**NUTR 1020 LS - Science and Application of Human Nutrition**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem, 1st Blk, 2nd Blk, Hybrid, Online]**  
**Spring [Full Sem, 1st Blk, 2nd Blk, Hybrid, Online]**  
**Summer [Full Sem, 1st Blk, 2nd Blk, Hybrid, Online]**

Human nutrition is the platform to study the nature and integration of science across disciplines and in society through applied problem solving and data analysis. Nutritional balance and good health are explored in context of the levels of organization, metabolism and homeostasis, genetics and evolution, and ecological interactions. *This course is taught Web enhanced.*

## **NUTR 1120 - Nutrition for the Athlete**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The course will address nutrition, eating behavior, and lifestyle issues of the athlete in the typical collegiate athletic environment. Topics in nutrition for the performance athlete, meal planning for the collegiate athlete, menu evaluation, personal diet analysis, and common fad diets aimed at the performance athlete are included.

## **NUTR 1240 - Nutrition and Sustainable Cooking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk or 2nd Blk Online]**

Sustainable ways to acquire, prepare and consume food to support a healthier individual, population, and environment are explored. Food science principles will be emphasized in the laboratory experience.

## **NUTR 2220 - Prenatal and Infant Nutrition**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk or 2nd Blk Hybrid or Online]**

**Spring [1st Blk or 2nd Blk Hybrid or Online]**

**Summer [At times 1st Blk or 2nd Blk Online]**

This course focuses on nutrition and diet as they apply to birth outcome, the maintenance of maternal health, and the growth of the infant. Breastfeeding and community programs will be discussed in support of maternal and infant health. Prerequisite: NUTR 1020 or HLTH 1020.

## **NUTR 2320 - Food Values, Diet Design and Health**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online, 1st Blk or 2nd Blk Hybrid or Online]**

**Spring [Full Sem, Online, 1st Blk or 2nd Blk Hybrid or Online]**

**Summer [1st Blk or 2nd Blk Online]**

The relationships between dietary components and the development of chronic diseases provides the foundation for designing diets that support life-long "good health". Topics in nutrigenomics, food allergy and food technology are introduced. Prerequisite: NUTR 1020 or HLTH 1020. This course is taught Web enhanced.

## **NUTR 2420 - Childhood and Adolescent Nutrition**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk or 2nd Blk Hybrid or Online]**

**Spring [1st Blk or 2nd Blk Hybrid or Online]**

**Summer [At times 1st Blk or 2nd Blk Online]**

The effects of nutrition and diet on child growth, health and behavior are explored from toddler through adolescence. The processes of growth and puberty provide the foundations for understanding nutritional support. Common nutritionally-

related problems such as obesity, anemia, and eating disorders are also addressed. Prerequisite: NUTR 1020 or HLTH 1020.

### **NUTR 3020 - Sports Nutrition**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online, 1st Blk or 2nd Blk Hybrid or Online]**

**Spring [Full Sem Online, 1st Blk or 2nd Blk Hybrid or Online]**

The nutritional support necessary to achieve optimum athletic performance will be discussed in the context of diet and metabolism. In addition, the use of ergogenic aids will be addressed with reference to athletic performance. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320.

### **NUTR 3220 - Foundations in Diet Therapy**

**Credits: (2)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [1st Blk or 2nd Blk Online]**

Nutritionally related medical conditions in which diet is crucial for control of the disease will be the foundation for developing skills in case management. The use of several nutritional alternatives and supplements will be incorporated into the curriculum as they pertain to the dietary management of the condition. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320 (ZOOL 2200 or HTHS 1110/HTHS 1111 are recommended).

### **NUTR 3320 - Health and Nutrition in the Older Adult**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [1st Blk or 2nd Blk Online]**

The developmental process of late adulthood with focus on the physiological age-related changes provides the foundation for understanding physical, mental, and social health and well-being in the older adult. Nutrition and exercise assessments and prescriptions, clinical services, community and social support services, complementary and alternative medicine, and other topics are explored in the context of promoting healthy aging. Prerequisite: NUTR 1020 or HLTH 1020.

### **NUTR 3420 - Multicultural Health & Nutrition**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem]**

**Summer [1st Blk or 2nd Blk Online]**

The application and understanding of social, religious, economic and aesthetic qualities of foods provides the knowledge for the explorations of the food patterns of various cultures. The understanding of world food problems as they pertain to the health will also be discussed. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320. This course is taught Web enhanced.

### **NUTR 4320 - Current Issues in Nutrition**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem, 1st Blk or 2nd Blk Hybrid or Online]**

**Spring [Full Sem, 1st Blk or 2nd Blk Hybrid or Online]**

Technology-aided literature review of the nutritional and medical sciences provides the information for presentation to peers in both written and oral forms. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320 or consent of instructor.

### **NUTR 4420 - Nutrition and Fitness**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk or 2nd Blk Hybrid]**

**Spring [1st Blk or 2nd Blk Online]**

Principles of sports nutrition and fitness are applied to achieve a healthy body weight. Consideration of exercise and dietary practices along with fitness evaluation, dietary analysis and body composition testing are utilized to create a plan to improve physiological health. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320. This course is taught Web enhanced.

### **NUTR 4440 - Advanced Human Nutrition**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

The advanced study of human nutrition with focus on the metabolism of vitamins, minerals, and energy-producing nutrients. The structure, properties, and functions of the nutrients and their regulatory roles in metabolism, body composition and weight, fluid balance, health, and disease states are covered with clinical examples and across the lifespan. Prerequisite: NUTR 1020, NUTR 2320, and CHEM 3070.

### **NUTR 4520 - Directed Undergraduate Nutrition Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

This course will provide undergraduate students an opportunity to engage in research processes and participate in ongoing nutrition research projects. Prerequisite: NUTR 4320 or NUTR 1020 or HLTH 1020 and Permission of Instructor. May be repeated 3 times up to 6 credit hours.

### **NUTR 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem Online, 1st Blk Online or 2nd Blk Online]**

**Spring [Full Sem Online, 1st Blk Online or 2nd Blk Online]**

**Summer [Full Sem Online, 1st Blk Online or 2nd Blk Online]**

Independent and directed readings or secondary research on advanced special topics under the direction of a faculty

mentor. Prerequisite: NUTR 2320 and consent of faculty supervisor prior to registration. May be repeated for up to 3 credit hours.

### **NUTR 4860 - Field Experience**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

Work experience, which applies prior academic learning in a supervised setting. Prerequisite: NUTR 1240 and consent of faculty supervisor prior to registration. May be repeated up to 2 credit hours.

### **NUTR 4990 - Senior Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

This is a capstone course for Nutrition seniors only. The experiences in the Nutrition major will be summarized and students will be prepared for graduate study or future employment. Prerequisite: NUTR 3420.

### **NUTR 6320 - Current Issues in Nutrition**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Technology-aided literature review of the nutritional and medical sciences provides the information for presentation to peers in both written and oral forms. Prerequisite: NUTR 1020 or HLTH 1020 and NUTR 2320 or consent of instructor.

### **NUTR 6420 - Nutrition and Fitness**

**Credits: (3)**

**Typically taught:**

**Fall [1st or 2nd Blk Hybrid]**

**Spring [1st or 2nd Blk Online]**

Principles of sports nutrition and fitness are applied to achieve a healthy body weight. Consideration of exercise and dietary practices along with fitness evaluation, dietary analysis and body composition testing are utilized to create a plan to improve physiological health. Prerequisite: Consent of instructor. This course is taught Web enhanced.

### **NUTR 6520 - Directed Graduate Nutrition Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem Online]**

This course will provide graduate students an opportunity to engage in research processes and participate in ongoing nutrition research projects. Prerequisite: NUTR 4320 or NUTR 1020 or HLTH 1020 and Permission of Instructor.

Graduate students taking this class as 6520 must have completed a statistical methods course. May be repeated 3 times up to 4 credit hours.

### **OCRE 2300 - Wilderness First Responder (WFR)**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Wilderness First Responder (WFR) is an industry-standard, internationally recognized 72-80 hour (per provider) certification course focused on emergency response for remote settings in the backcountry. The course is designed for professionals who intend to work in a position of leadership in an outdoor setting, or for individuals who want a high level of wilderness medical training for extended personal backcountry trips or expeditions. Participants will learn systems for patient assessment, extended care (including CPR), and rescue/evacuation in remote settings. Emphasis will be placed on the acquisition and application of knowledge and skills necessary for responsible practice in the field of outdoor recreation. Upon successful completion of the course (including a written and practical exam), students will earn an internationally recognized professional certification.

### **OCRE 2500 - Introduction to Outdoor Pursuits**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Introduction to Outdoor Pursuits is focused on engaging and introducing students to discover, explore, and practice a variety of outdoor adventure and recreation activities. This includes, but is not limited to, group development, outdoor living, backpacking, flat- and whitewater paddling, mountain biking, rock climbing, caving, and winter-based pursuits. Emphasis is placed on activity-specific technical skill development, equipment management, risk management, environmental ethics, and basic instructional and facilitation strategies. Field Sessions are required.

### **OCRE 2610 - Introduction to Outdoor Living Skills I**

**Credits: (2)**

This course will provide students with an overview of backcountry skills. Students will learn about backcountry travel and camping skills, equipment use, and hazard identification. One lecture and 3 hour field trip are required each week.

### **OCRE 2890 - Cooperative Work Experience**

**Credits: (1-9)**

Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department. Open to all students in Recreation who meet the minimum Cooperative Work Experience requirements of the department. May be repeated 8 times up to 9 credit hours.

### **OCRE 3050 - Recreation and Leisure in Society**

**Credits: (3)**

Content, nature, extent and significance of recreation and leisure; their role in our lives, relevant service delivery agencies/organizations/businesses, leadership functions and styles, and a introduction to team-building/adventure programming activities.

### **OCRE 3100 - Recreation Leadership and Group Facilitation**

**Credits: (3)**

Customer/client-based leisure services, role delineation, settings, theories of leadership and group dynamics. Skills: apply various experiential techniques for different populations that recreational professionals may encounter.

### **OCRE 3230 - Wilderness Nutrition & Backcountry Cooking**

**Credits: (4)**

**Typically taught:**

**Spring [1st Blk]**

For outdoor professionals and those who spend extensive time in the outdoors, wilderness nutrition and backcountry cooking are critical components to providing safe, healthy, and enjoyable outdoor recreation experiences. Concepts of nutritional balance, energy needs, menu planning, and cooking are explored and applied within the context of a backcountry setting. Multiple field experiences are required. Prerequisite: HLTH 1030 or NUTR 1020.

### **OCRE 3300 - Inclusive and Adaptive Recreation**

**Credits: (3)**

Students will explore and apply concepts of leisure and recreation experiences and the related social impacts across a wide variety of populations including: ethnicity, race, ability, gender, age, religion and nationality.

### **OCRE 3320 - Adventure Programming**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

In this course, students will gain a theoretical and applied understanding of adventure programming within the field of Community and Outdoor Recreation. Students will have the opportunity to explore program planning and preparation, and activity implementation through individual and collaborative learning experiences. Upon completion of this course, students will have a Program Plan that reflects the theoretical and logistical elements that comprise programs in Community and Outdoor Recreation. This course also requires an adventure program implementation field experience. Prerequisite: OCRE 3100 (formerly REC 3810).

### **OCRE 3400 - Outdoor Equipment Production and Retailing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Students will learn about key outdoor gear manufacturers, materials used in equipment, and practices retail operation use in the sales of outdoor apparel and equipment. Students will apply course information to analyze, critique, and create an outdoor gear concept. In class exercises, site visits, field trips, and assignments will challenge students to engage in critical thinking and complex quantitative and communication skills. Prerequisite: OCRE 2500 or permission from the instructor.

### **OCRE 3450 - Adventure Travel and Sustainable Tourism**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

This course will provide an overview of history, development, organization, impacts and trends within adventure travel and tourism industries. Students will learn about development and evolution of adventure travel and sustainable tourism; socio-cultural, economic, and environmental dimensions within adventure travel and sustainable tourism; positive and negative impacts of tourism; and principles and practices conducive to sustainable tourism. Students will gain experience in critically analyzing and evaluating adventure travel and sustainable tourism industries.

### **OCRE 3500 - Community Recreation and Park Planning**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will focus on principles and methods of recreation and park design and planning. The student should expect to learn how to: assess community recreation facilities, parks, open spaces, recreation trends, industry standards, create planning goals and objectives, and make planning recommendations. Classification of recreation areas according to primary function, location and clientele will also be explored. Prerequisite: OCRE 3320.

### **OCRE 3520 - Risk Management and Legal Issues in Recreation Services**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Risk Management and Legal Issues is focused on the examination of general legal concepts, federal and state legislation, and legal liabilities as these relate to and impact programming with the fields of community and outdoor recreation. Emphasis is placed on the process of identifying and managing potential risks in recreation, education, developmental, and social service settings, as well as organizational structures. The course content is interdisciplinary in nature, and is grounded in the tenets of experiential education. Prerequisite: OCRE 3320 or permission from the instructor.

### **OCRE 3600 - Administration and Management of Outdoor and Community Recreations Services**

**Credits: (3)**

This course provides an examination of administration and management skills tied to outdoor recreation agencies/businesses/organizations. Emphasis will be placed on site visits, services delivery, environmental impacts, legal issues, human resources and administration and management skills. Outdoor activities (backpacking/hiking/camping/ropes course leadership, and use of technology in leisure research and programming) will be explored in the context of program management and administration. Field trips are required. Prerequisite/Co-requisite: OCRE 3320.

## **OCRE 3700 - Recreation and Sports Facilities and Events Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Studies the principles, guidelines, and fundamental practices involved in indoor and outdoor facilities planning, construction, use and management, as well as publicity and management of events for recreation and sports. Integrates tenets of the law and risk management as they relate to recreational and athletic facilities and events. Prerequisite: ESS 2200 or OCRE 3050.

## **OCRE 3900 - Commercial Outdoor Recreation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will cover outdoor and adventure recreation business development. Particular emphasis will be on analyzing the types of commercial and private recreation enterprises, trends and directions, regulations, financial requirements and procedures for planning and organizing commercial recreation services. Prerequisite: OCRE 3320.

## **OCRE 4000 - Recreation Programming for Youth Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course will review and apply theories of youth development to recreation-based settings. Topics addressed include: youth development theories, political, social, and cultural issues relevant to youth development, types of youth serving organizations, youth professional roles and responsibilities; quality youth programming, logic modeling, program evaluation, and theory-driven program design. Prerequisite: OCRE 3100 or permission from the instructor.

## **OCRE 4020 - Nature Interpretation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Nature Interpretation is focused on providing the student with an in-depth investigation of the fundamental principles and concepts of nature interpretation. This includes, but is not limited to historical development of the field, principles of exhibit design, interpretative program designs and techniques, common field techniques, and current trends used by outdoor leaders. In addition, an overview of employment opportunities in the field will be explored. This course emphasizes experiential learning theories and their application to natural history interpretation and environmental education program design. The course content is interdisciplinary in nature, and is grounded in the tenets of experiential education and learning (per the work of John Dewey). Prerequisite: OCRE 3050 and OCRE 3100 (formerly 3810).

### **OCRE 4300 - Trends and Ethical Issues in Recreation Services**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Current Trends and Ethical Issues in Recreation examines major ethical theories and their relation to the development of personal and professional ethics in practitioners working in the field of community and outdoor recreation. The differences between ethics and morality will be analyzed, and selected codes of ethics will be presented for review and discussion. The application of ethical decision making and problem solving in recreation settings will be explored. Prerequisite: OCRE 3600.

### **OCRE 4500 - Grant and Proposal Writing for Recreation Professionals**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

Grant and Proposal Writing for Recreation Professionals is focused on providing the student with an in-depth investigation of grant writing and management. The course will provide students with an opportunity for primary and authentic experience in researching and writing grants. Students will explore the process of identifying prospective funders, developing relationships with funders, comprehending the basics of writing grants, submitting proposals, working in collaborative partnerships, and preparing for follow up and evaluation. Students will apply course learning to write and prepare actual grant proposals. The course content is interdisciplinary in nature, and is grounded in the tenets of experiential education and learning. Prerequisite: OCRE 3050 or permission from the instructor.

### **OCRE 4550 - Outdoor Education Philosophies & Principles**

**Credits: (3)**

Provides basic concepts of outdoor education, and direct, firsthand experience with learning resources beyond the classroom. Prerequisite: OCRE 2500.

### **OCRE 4800 - Individual Projects**

**Credits: (1-3)**

A comprehensive study of a significant problem in the field of recreation. Hours to be arranged. For seniors only. May be repeated 2 times up to 3 credit hours.

### **OCRE 4890 - Cooperative Work Experience**

**Credits: (1-6)**

A continuation of OCRE 2890. May be repeated 5 times up to 6 credit hours.

### **OCRE 4930 - Outdoor Education Workshop**

**Credits: (2)**

A broad inter-disciplinary approach to the methodology of outdoor education teaching techniques; experiential learning-course taught almost totally outdoors.

## **OCRE 6930 - Outdoor Education Workshop**

### **Credits: (2)**

A broad interdisciplinary approach to the methodology of outdoor education teaching techniques; experiential learning-course taught almost totally outdoors.

## **PAR 1000 - Emergency Medical Technician**

### **Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course teaches the student to recognize and instruct the response to emergency calls to provide efficient and immediate care to the critically ill and injured, and deliver transport needs for the patient to the appropriate medical facility. The student will be able to determine the nature and extent of illness or injury and establish priority for required emergency care. Theory will include the emergency medical care to the adult, infant and child, medical, and trauma patients. This course meets all of the requirements of the National EMS Education Standards. Successful evaluation of professionalism, interpersonal relationships, skills, and knowledge must be completed for recommendation of certification. (Must be taken with PAR 1001.)

## **PAR 1001 - Emergency Medical Technician Lab**

### **Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem, 2nd Blk]**

**Summer [1st Blk]**

At the completion of this course the student will be able to demonstrate competency managing emergencies, utilizing all Basic Support equipment and skills in accordance with all behavioral objectives in the current National EMS Education Standards. In addition to the lab, this course requires that the student have patient interactions in a clinical setting. Based on assessment finding, renders emergency medical care to the adult, infant and child, medical, and trauma patients. Successful evaluation of professionalism, interpersonal relationships, skills, and knowledge must be completed for recommendation of certification. (Must be taken with PAR 1000).

## **PAR 1005 - EMT-Basic Field Experience - I**

### **Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Minimum of 120 hours of supervised EMT-Basic patient care experience provided through assigned day shifts on the ambulance and/or pre-hospital setting. A preceptor evaluates basic life support knowledge, skills and affective abilities. Prerequisite: PAR 1000/PAR 1001 and HTHS 1101, HTHS 1110/HTHS 1111 and 70% minimum on EMT-B assessment exam. Department permission required.

## **PAR 1006 - EMT-Basic Field Experience - II**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

Minimum of 120 additional hours of continued supervised EMT-Basic patient care experience provided through assigned shifts on the ambulance and/or pre-hospital setting. A preceptor evaluates basic life support knowledge, skills and affective abilities. Prerequisite: PAR 1005, ENGL 1010, and MATH 0990 or MATH 1010.

## **PAR 1010 - Emergency Medical Technician - Intermediate Introduction**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

Introduction of Intermediate EMT concepts of basic and advanced life support utilizing cognitive knowledge objects using the State Department of Health and current National Standard EMT-I Curriculum. Application of pre-hospital care will be demonstrated through written assignments and exams. Course may be challenged for credit. Course is required, or equivalent work experience, before admission into the paramedic program. Prerequisite: Must have Basic EMT certification. PAR 1010 combined with PAR 1011 will provide a certificate of 60 hours of continuing medical education hours toward recertification requirements for the Utah State Department of Health.

## **PAR 1011 - Emergency Medical Technician - Intermediate Introduction Lab**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

This course requires clinical hours with an emergency facility and ambulance as scheduled. Application of basic EMT skills involving pre-hospital care with staged and real emergencies and demonstration of psychomotor skills through laboratory, ambulance riding time, and clinical assignments. Clinical activities are adapted to previous documented work experiences. This course may be challenged for credit. This course is required, or equivalent work experience, before admission into the paramedic program. Prerequisite: Must have Basic EMT certification. PAR 1010 combined with PAR 1011 will provide a certificate of 60 hours of continuing medical education hours toward recertification requirements for the Utah State Department of Health.

## **PAR 1020 - Emergency Medical Technician - Intermediate**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

Curriculum includes but is not limited to the US Department of Transportation National Standard Curriculum for the EMT-Intermediate. This course consists of the cognitive knowledge and theory components of the USDOT Curriculum and builds upon the EMT Basic knowledge. State certification eligibility of EMT Intermediate upon successful completion of both PAR 1020 and PAR 1021. Students will demonstrate mastery of cognitive knowledge skills through written assignments and examinations. Course format consists of didactic lecture. Paramedic Program application, faculty review, and committee selection are required to be admitted to this course. Prerequisite: PAR 1011 or equivalent.

## **PAR 1021 - Emergency Medical Technician - Intermediate Lab**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

Curriculum includes but is not limited to the U.S. Department of Transportation National Standard Curriculum for the EMT-Intermediate. Builds upon the EMT Basic psychomotor skills. State certification eligibility of EMT I upon successful completion of both PAR 1020 and PAR 1021. This course consists of clinical instruction and supervised field experiences in an advanced life support rescue unit which functions under a medical command authority. Students will demonstrate their mastery of the educational psychomotor skills through practical exams and staged and real emergencies. Must have department approval by application process involving an admissions committee final selection. Prerequisite: PAR 1020 or equivalent.

### **PAR 1030 - Pediatric Advanced Life Support (PALS)**

**Credits: (1)**

**Typically taught:**

**Not currently being offered**

Subject and case based approach to American Heart Association protocols and skills required for successful resuscitation of child and infant. The cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock, or cardiopulmonary arrest. Prerequisite: Basic Life Support course completion card.

### **PAR 1031 - Advanced Cardiac Life Support (ACLS)**

**Credits: (1)**

**Typically taught:**

**Not currently being offered**

Subject and case based approach to American Heart Association protocols and skills required for successful resuscitation of the adult. This course is designed to help all participants succeed in acquiring the cognitive knowledge psychomotor skills needed by medical professionals in adult resuscitation attempts.

### **PAR 2000 - Introduction to Paramedic Practice**

**Credits: (4)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Introduces the paramedic student to basic pathophysiology, pharmacology, research methods, airway management, plus patient interaction and assessment skills. Includes professional and wellness considerations for the individual practitioner and patient. Basic knowledge of medical incident command, rescue awareness, hazardous materials incidents, and crime scene awareness is included. Meets all national EMS Education Standards. Prospective students must be EMT certified, accomplish Dumke College of Health Professions advising, complete the department application process, and then be accepted to the program prior to registration.

### **PAR 2020 - Traumatic Emergencies**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Prepares the student to recognize, assess and provide paramedic interventions related to bodily traumatic injuries. Current PHTLS/BTLS/ABLS principles are utilized. Prerequisite: PAR 2000 and PAR 3010.

### **PAR 2030 - Special Populations in Paramedic Practice**

**Credits: (3)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Prepares the student to recognize, assess and provide paramedic interventions related to the special challenges posed by neonate, pediatric, obstetric, geriatrics, and psychiatric patients. Acute interventions for the chronically ill and home care patient are discussed. Current AHA, PEPP, and national EMS Education Standards are utilized. Prerequisite: PAR 2000 and PAR 3010.

### **PAR 2040 - Paramedic Skills and Simulation Lab**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Skills application using the theory of paramedic practice. This course will complete the National Registry Paramedic Psychomotor Competency Portfolio. Students must pass all skills before advancing into clinical and field internship rotations. Prerequisite: PAR 2000. (\$225 lab fee)

### **PAR 2100 - Capstone Course in Paramedic Practice**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Pathophysiology and advanced concepts applied to recognition of Advanced Life Support patient problems and treatment modalities. Student research and presentation projects are designed to meet professional goals and experiences. All paramedic terminal competencies will be re-verified prior to a recommendation to certify. Student must pass the physician oral examination to be recommended for certification testing. Prerequisite: PAR 2000, PAR 3010, PAR 2020, PAR 2030, PAR 2040.

### **PAR 2110 - Paramedic Clinical Experience**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Clinical rotations in various medical settings provide the student with the opportunity to perform skills and apply knowledge of paramedic practice. Includes, but is not limited to, areas in the operating room, emergency department, labor/delivery, psychiatric, pediatric, burn and cardiac cath units. Prerequisite: PAR 2000, PAR 3010, PAR 2020, PAR 2030, PAR 2040.

## **PAR 2120 - Paramedic Field Internship**

**Credits: (9)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Rotations with various paramedic Fire/EMS agencies providing rescue vehicle response to advance the skills and performance of paramedic practice. Successful evaluation of professionalism, interpersonal relationships and problem solving under stress, must be completed for recommendation to test for certification/licensure. Student will nominally complete 480 hours of ride time and successfully complete 50 ALS Team Leads. Prerequisite: PAR 2000, PAR 2020, PAR 2030, PAR 2040, PAR 2110, PAR 3010.

## **PAR 3010 - Cardiac and Medical Emergencies**

**Credits: (6)**

**Typically taught:**

**Fall [2nd Blk]**

**Spring [2nd Blk]**

**Summer [2nd Blk]**

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment and/or disposition plan for a patient with a cardiac or medical complaint. This course prepares the paramedic student to recognize, assess, develop and implement paramedic interventions related to cardiac and other medical emergencies. Topical areas include the cardiac, circulatory, digestive, endocrine, HEENT, hematologic, respiratory, and urinary systems. Concepts of infectious diseases, toxicology, anaphylaxis, environmental exposure, and shock will also be presented. Current AHA Guidelines and the 2010 National EMS Standards will be fully utilized. Prerequisite: PAR 2000. May be repeated once for credit.

## **PAR 3110 - Critical Care Transport Course**

**Credits: (6)**

**Typically taught:**

**Summer [1st Blk]**

This course will prepare experienced paramedics and registered nurses to become part of a highly functioning critical care transport team, often transporting high risk patients. Topics covered include; 1) History and role of critical care transport; 2) General principles of critical care transport, 3) Patient care principles 4) Trauma emergencies; 5) Medical emergencies; 6) Environmental emergencies 7) Special populations, and 8) Medical, legal and patient care issues in critical care transport. While the course is primarily oriented to ground transportation, the content presented will allow a student take the National Flight Nurse/Paramedic exam. Prerequisite: Paramedic or registered nurse (2-3 years experience nominal) or department approval.

## **PAR 3120 - Tactical Emergency Medicine**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

This rigorous course provides the principles of tactical medicine. Topics include instruction in the tenets of tactical emergency medicine, particularly in providing acute care in tactical combat situations and the medical operations support of tactical teams. This course is designed to provide the EMS provider with a variety of skills necessary to support a tactical law enforcement team. Prerequisite: EMT-Basic certification

## **PAR 3130 - Mobile Integrated Healthcare**

**Credits: (2)**

**Typically taught:**

**Spring [1st Blk, Online]**

Mobile Integrated Healthcare (MIH) is the provision of healthcare using patient-centered, mobile resources in the out-of-hospital environment. This course is intended to provide the Emergency Healthcare Services student the tools needed to perform an organizational readiness assessment leading to the development of a community MIH program. The history of MIH, potential stakeholders, types of MIH programs along with data collection, QA/QI, and reimbursement will be explored. As the course capstone, each student will submit a MIH implementation plan that could be utilized in their current EMS response area. (This course does not have a clinical component nor leads to any potential state licensure.) Prerequisite: Allied Health or Nursing background suggested or departmental approval.

## **PAR 4110 - Emergency Medical Services Management Topics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

The principles of management and process that contribute to the effectiveness of day-to-day operations within an EMS organization. Topics include human resource management, communications systems, deployment strategies, and risk management. Additional topics include an emphasis on demand analysis, staffing, medical direction, reimbursement, capital investment, and cost control.

## **PAR 4120 - Emergency Medical Service Teaching Topics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Using the USDOT/NHTSA National Guidelines for Educating EMS Instructors, this course will prepare emergency medical service instructors for classroom and skill lab teaching. Topics discussed include; 1) instructor roles and responsibilities; 2) the student; 3) foundations of education; 4) delivering the message; 5) evaluation and 6) course administration. Students will demonstrate EMS teaching in both a class room and skill lab environment. Prerequisite: EMT-Basic certification.

## **PAR 4130 - Capstone Seminar in Emergency Medicine Research**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem, Online]**

This course is designed to offer students the basic principles and methods of empirical inquiry in emergency healthcare. The course will provide an understanding of emergency medicine research through serious exploration of its language, ethics, and methods. The course examines the processes of quantitative, qualitative, and mixed methods approaches to experimental and observed analysis. Students will develop the skills to begin to critically review literature relevant to emergency medicine research and determine why evidence-based practices are important for the development and progression of the emergency healthcare discipline. Prerequisite: Must be enrolled in Bachelor of Science in Emergency Healthcare Services or by departmental approval.

## **PAR 4850 - Study Abroad**

**Credits: (1-6)**

**Variable Title**

**Typically taught:**

**Not currently being offered**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience.

## **PE 1010 - Aerobics, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in aerobic exercises to improve cardiovascular and respiratory functioning.

## **PE 1011 - Aerobics, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in aerobic exercises to improve cardiovascular and respiratory functioning.

## **PE 1012 - Aerobics, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in aerobic exercises to improve cardiovascular and respiratory functioning.

## **PE 1035 - Zumba, Level I**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that introduces students to Zumba; an activity that fuses cardiovascular fitness, upbeat world rhythms, and easy-to-follow choreography for a total-body workout.

### **PE 1036 - Zumba, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that introduces students to Zumba; an activity that fuses cardiovascular fitness, upbeat world rhythms, and easy-to-follow choreography for a total-body workout.

### **PE 1037 - Zumba, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Spring Sem]**

A physical activity course that introduces students to Zumba; an activity that fuses cardiovascular fitness, upbeat world rhythms, and easy-to-follow choreography for a total-body workout.

### **PE 1040 - Walking for Fitness, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in walking to improve physical fitness.

### **PE 1041 - Walking for Fitness, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in walking to improve physical fitness.

### **PE 1042 - Walking for Fitness, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in walking to improve physical fitness.

### **PE 1043 - Jogging, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that engages students in jogging to improve physical fitness and health. Topics in the biomechanics of running efficiently and safely, heart rate, energy expenditure, body composition, and diet may be taught.

**PE 1044 - Jogging, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that engages students in jogging to improve physical fitness and health. Topics in the biomechanics of running efficiently and safely, heart rate, energy expenditure, body composition, and diet may be taught.

**PE 1045 - Jogging, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that engages students in jogging to improve physical fitness and health. Topics in the biomechanics of running efficiently and safely, heart rate, energy expenditure, body composition, and diet may be taught.

**PE 1055 - Pilates**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that introduces students to Pilates training; a mind-body exercise program designed to tone the body, stabilize the core, improve balance, and increase flexibility.

**PE 1057 - Hatha Yoga, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

**PE 1058 - Hatha Yoga, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and experience the physical benefits and body awareness associated with practicing yoga. This Level II course allows students to build on skills developed in Level I.

### **PE 1068 - Kettlebell Conditioning**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A vigorous introductory physical conditioning course primarily utilizing kettlebells. Exercises designed to enhance strength, power, endurance, and agility will be emphasized.

### **PE 1070 - Cross Training For Fitness, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that engages students in cross training activities to improve overall levels of physical fitness.

### **PE 1071 - Cross Training For Fitness, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A physical activity course that engages students in cross training activities to improve overall levels of physical fitness.

### **PE 1072 - Cross Training For Fitness, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A physical activity course that engages students in cross training activities to improve overall levels of physical fitness.

### **PE 1077 - Weightlifting, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A vigorous physical conditioning course intended to assist students in skill development specific to Olympic weightlifting. The snatch and clean-and-jerk, will be emphasized as will assistance exercises to increase strength.

## **PE 1078 - Weightlifting, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A vigorous physical conditioning course intended to assist students in skill development specific to Olympic weightlifting. The snatch and clean-and-jerk, will be emphasized as will assistance exercises to increase strength.

## **PE 1079 - Weightlifting, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A vigorous physical conditioning course intended to assist students in skill development specific to Olympic weightlifting. The snatch and clean-and-jerk, will be emphasized as will assistance exercises to increase strength.

## **PE 1080 - Strength Training, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A physical activity course that engages students in neuromuscular conditioning. Course subject matter will include neuromuscular conditioning, developing strength training programs, and learning and practicing proper lifting techniques.

## **PE 1081 - Strength Training, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A physical activity course that engages students in neuromuscular conditioning. Course subject matter will include neuromuscular conditioning, developing strength training programs, and learning and practicing proper lifting techniques.

## **PE 1082 - Strength Training, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

A physical activity course that engages students in neuromuscular conditioning. Course subject matter will include

neuromuscular conditioning, developing strength training programs, and learning and practicing proper lifting techniques.

**PE 1098 - Fitness for Life**

**Credits: (1)**

A physical activity course that teaches students the importance of engaging in lifetime fitness. Strategies for maintaining and enhancing cardiovascular fitness, muscular strength, flexibility, and body composition will be taught.

**PE 1100 - Tennis, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

A physical activity course that allows students to learn and develop the skills needed to play tennis.

**PE 1101 - Tennis, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

A physical activity course that allows students to learn and develop the skills needed to play tennis.

**PE 1102 - Tennis, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to play tennis.

**PE 1105 - Badminton, Level I**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to play badminton.

**PE 1106 - Badminton, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to play badminton.

**PE 1110 - Racquetball, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play racquetball.

**PE 1111 - Racquetball, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play racquetball.

**PE 1112 - Racquetball, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play racquetball.

**PE 1115 - Pickleball, Level 1**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to study, practice, and develop skill and competency at a proficient level, and to be able to successfully participate and play a game of pickleball. May be repeated twice.

**PE 1116 - Pickleball, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to study, practice, and develop skill and competency at a proficient level, and to be able to successfully participate and play a game of pickleball. May be repeated twice.

**PE 1117 - Pickleball, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to study, practice, and develop skill and competency at a proficient level, and to be able to successfully participate and play a game of pickleball. May be repeated twice.

**PE 1130 - Golf, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Summer [Full Sem, 1st Blk]**

A beginning level physical activity course that allows students to learn and develop the skills needed to play golf.

**PE 1131 - Golf, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Summer [Full Sem, 1st Blk]**

An intermediate level physical activity course that allows students to learn and develop the skills needed to play golf.

**PE 1132 - Golf, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Summer [Full Sem, 1st Blk]**

An advanced level physical activity course that allows students to learn and develop the skills needed to play golf.

**PE 1135 - Archery, Level I**

**Credits: (1)**

**Typically taught:**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice archery.

**PE 1136 - Archery, Level II**

**Credits: (1)**

**Typically taught:**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice archery.

**PE 1137 - Archery, Level III**

**Credits: (1)**

**Typically taught:**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice archery.

**PE 1140 - Marksmanship**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to practice shooting and other skills related to marksmanship.

**PE 1145 - Bowling, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A physical activity course that allows students to learn and develop the skills needed to practice bowling.

**PE 1146 - Bowling, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A physical activity course that allows students to learn and develop the skills needed to practice bowling.

**PE 1147 - Bowling, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice bowling.

**PE 1150 - Billiards, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice billiards.

**PE 1151 - Billiards, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice billiards.

**PE 1152 - Billiards, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice billiards.

**PE 1155 - Fencing, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to practice fencing.

**PE 1156 - Fencing, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to practice fencing.

**PE 1157 - Fencing, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to practice fencing.

**PE 1200 - Basketball, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play basketball.

**PE 1201 - Basketball, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play basketball.

**PE 1202 - Basketball, Level III**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play basketball.

**PE 1210 - Volleyball, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play volleyball.

**PE 1211 - Volleyball, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play volleyball.

**PE 1212 - Volleyball, Level III**

**Credits: (1)**  
**Typically taught:**  
**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to play volleyball.

**PE 1225 - Softball**

**Credits: (1)**  
A physical activity course that allows students to learn and develop the skills needed to play softball.

**PE 1230 - Soccer, Level I**

**Credits: (1)**  
A physical activity course that allows students to learn and develop the skills needed to play soccer.

**PE 1231 - Soccer, Level II**

**Credits: (1)**  
A physical activity course that allows students to learn and develop the skills needed to play soccer.

**PE 1232 - Soccer, Level III**

**Credits: (1)**  
A physical activity course that allows students to learn and develop the skills needed to play soccer.

**PE 1235 - Flag Football**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

This physical activity course is intended to engage students in the sport of flag football. Students will learn techniques, drills, and games to assist with development of skills and competitive game play.

**PE 1245 - Ultimate Frisbee, Level I**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem, 1st Blk, 2nd Blk]**  
**Spring [1st Blk, 2nd Blk]**  
**Summer [1st Blk, 2nd Blk]**

This physical activity course is intended to engage students in the sport of Ultimate Frisbee. Students will learn techniques, drills, and games to assist with development of skills and competitive game play.

**PE 1246 - Ultimate Frisbee, Level II**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem, 1st Blk, 2nd Blk]**  
**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

This physical activity course is intended to engage students in the sport of Ultimate Frisbee. Students will learn techniques, drills, and games to assist with development of skills and competitive game play.

**PE 1247 - Ultimate Frisbee, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Fall Sem, 1st Blk, 2nd Blk]**

**Spring [Fall Sem, 1st Blk, 2nd Blk]**

**Summer [Fall Sem, 1st Blk, 2nd Blk]**

This physical activity course is intended to engage students in the sport of Ultimate Frisbee. Students will learn techniques, drills, and games to assist with development of skills and competitive game play.

**PE 1265 - Water Sports**

**Credits: (1)**

A physical activity course that allows students to learn and develop skills needed to play water sports. Water sports include, but are not limited to: swimming, water aerobics, water polo, and snorkeling.

**PE 1300 - Swimming, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to engage in the sport of swimming.

**PE 1301 - Swimming, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to engage in the sport of swimming.

**PE 1302 - Swimming, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to engage in the sport of swimming.

**PE 1310 - Water Aerobics, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

### **Spring [Full Sem]**

This physical activity course will introduce students to water conditioning. Through aerobic conditioning, abdominal toning, and stretching, students will learn how to maintain a high level of fitness through application of aerobic training principles in an aquatic environment.

### **PE 1311 - Water Aerobics, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This physical activity course will introduce students to water conditioning. Through aerobic conditioning, abdominal toning, and stretching, students will learn how to maintain a high level of fitness through application of aerobic training principles in an aquatic environment.

### **PE 1312 - Water Aerobics, Level III**

**Credits: (1)**

This physical activity course will introduce students to water conditioning. Through aerobic conditioning, abdominal toning, and stretching, students will learn how to maintain a high level of fitness through application of aerobic training principles in an aquatic environment.

### **PE 1340 - Lifeguarding**

**Credits: (2)**

Skills and knowledge needed by lifeguards to prevent and respond to aquatic emergencies. The course content and activities prepare lifeguard candidates to recognize emergencies, respond quickly and effectively to emergencies, and prevent drownings and other incidents. The course also teaches other skills and individual needs to become a professional lifeguard. Upon successful completion of this course participants will be certified in American Red Cross CPR for Professional Rescuer and Lifeguard Training. Prerequisite: Skills screening will be required. Please note: The Lifeguard Training certificate includes certification in first aid.

### **PE 1400 - Self Defense, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the art of self-defense, in a safe and controlled environment.

### **PE 1401 - Self Defense, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to perform the art of self-defense, in a safe and controlled environment.

### **PE 1402 - Self Defense, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to perform the art of self-defense, in a safe and controlled environment.

### **PE 1410 - TaiChi, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform TaiChi, which engages the body and mind and to reduce stress.

### **PE 1411 - TaiChi, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to perform TaiChi, which engages the body and mind and to reduce stress.

### **PE 1412 - TaiChi, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to perform TaiChi, which engages the body and mind and to reduce stress.

### **PE 1425 - Jiu Jitsu, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to learn and develop skills needed to perform the various styles of Jiu Jits. May be repeated twice.

### **PE 1426 - Jiu Jitsu, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to learn and develop skills needed to perform the various styles of Jiu Jits. May be repeated twice.

### **PE 1427 - Jiu Jitsu, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [1st Blk, 2nd Blk]**

A physical activity course that allows students to learn and develop skills needed to perform the various styles of Jiu Jits. May be repeated twice.

### **PE 1435 - Kempo, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the various fighting styles of Kempo Karate.

### **PE 1436 - Kempo, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the various fighting styles of Kempo Karate.

### **PE 1437 - Kempo, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the various fighting styles of Kempo Karate.

### **PE 1440 - Mixed Martial Arts, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to learn how to improve physical fitness and become mentally strong while mastering self-discipline and self-control to master the various techniques and forms of martial arts as they pertain to the sport of Mixed Martial Arts.

### **PE 1441 - Mixed Martial Arts, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to learn how to improve physical fitness and become mentally strong while mastering self-discipline and self-control to master the various techniques and forms of martial arts as they pertain to the sport of Mixed Martial Arts.

### **PE 1442 - Mixed Martial Arts, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

A physical activity course that allows students to learn how to improve physical fitness and become mentally strong while mastering self-discipline and self-control to master the various techniques and forms of martial arts as they pertain to the sport of Mixed Martial Arts.

### **PE 1445 - Tae Kwon-do, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the martial art of Tae Kwon-do through combat and self-defense while incorporating sport and exercise.

### **PE 1446 - Tae Kwon-do, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the martial art of Tae Kwon-do through combat and self-defense while incorporating sport and exercise.

### **PE 1447 - Tae Kwon-do, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that allows students to learn and develop the skills needed to perform the martial art of Tae Kwon-do through combat and self-defense while incorporating sport and exercise.

### **PE 1515 - Sailboating**

**Credits: (1)**

A physical activity course that introduces students to the outdoor activity of sailboating. The fundamental skills of sailboating will be addressed for both beginning and recreational sailors.

### **PE 1557 - Bicycling, Level I**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills and knowledge needed to safely enjoy bicycling.

### **PE 1558 - Bicycling, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills and knowledge needed to safely enjoy bicycling.

### **PE 1559 - Bicycling, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills and knowledge needed to safely enjoy bicycling.

### **PE 1575 - Rodeo I**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Fall [Full Sem]**

May be repeated 2 times up to 3 credit hours.

### **PE 1670 - Ice Skating, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity course that introduces students to ice skating. The fundamental skills of ice skating will be addressed for both beginning and recreational skaters.

### **PEP 1079 - Weightlifting, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A vigorous physical conditioning course intended to assist students in skill development specific to Olympic weightlifting. The clean-and-jerk, and snatch, lifts will be emphasized exclusively. Prerequisite: PE 1080, or instructor approval.

### **PEP 2000 - Foundations of Physical Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Examination of history, philosophy, career opportunities, issues, and trends in physical education. Emphasis on professional preparation requirements and competencies.

### **PEP 2100 - Introduction to Coaching Sport**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Examines various coaching philosophies and styles along with the duties and responsibilities of the coach, with an emphasis on leadership skills, organizational and administrative duties, the legal responsibilities that affects sport and the evaluation of the athletic program.

### **PEP 2480 - Fitness for Life Concepts**

**Credits: (1)**

Prescribe individualized programs for weight control, cardiovascular endurance, strength and flexibility.

### **PEP 2500 - Sport Pedagogy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to provide information on skill development, practice and game planning, season schedules, creating drills and practice sessions, motivating players and coaching tips.

### **PEP 2600 - Growth and Motor Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Description of the structural and functional principles of human growth and development. Introduction of motor learning principles with emphasis on their application to pedagogy. Prerequisite: PEP 2000 or concurrent enrollment in PEP 2000.

### **PEP 2700 SS - Sociohistorical Aspects of Sport**

**Credits: (3)**

**Typically taught:**

**Fall [Online]**

**Spring [Online]**

**Summer [Online]**

This course examines the sociological and historical aspects of sport in American society with the purpose of gaining an understanding of how race, class, gender, ethnicity, politics, and religion can bind Americans in a community of shared values and aspirations. Students will explore the unifying power of sport, as well as how sport serves to reproduce many inequalities present in the larger society. Gaining an understanding of how these issues, and others, interplay with sport is critical for those aspiring to become successful sport coaches, as well as for those who simply wish to gain an understanding of the complex relationship between sport and society (e.g., parents, fans, and sport participants).

### **PEP 2800 - Individual Projects**

**Credits: (1-4)**

A comprehensive study of a significant problem in the field of physical education. Hours to be arranged. May be repeated 3 times up to 4 credit hours.

### **PEP 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**As Needed**

Consult the semester class schedule for current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 2 times up to 4 credit hours.

### **PEP 3100 - Principles of Motor Learning and Motor Development**

**Credits: (3)**

The purpose of this course is to introduce and explore motor learning and motor development principles. Particular focus will be on how the application of motor learning and motor development impact the physical education and coaching learning environments. Prerequisite: PEP 2000.

### **PEP 3240 - Skill Development and Methods of Field Sports**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to provide prospective physical education teachers experiences that will lead to skill acquisition, the ability to analyze, diagnose and correct errors in skill performance, the development of skills, drills, and game progressions, and the pedagogical skills needed to teach a variety of field sports (e.g., flag football, soccer, and softball). Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3242 - Skill Development and Methods of Court Sports**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

The purpose of this course is to provide prospective physical education teachers experiences that will lead to skill acquisition the ability to analyze, diagnose and correct errors in skill performance, the development of skills, drills, and game progressions, and the pedagogical skills needed to teach a variety of court sports (e.g., basketball and volleyball). Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3260 - Methods of Teaching Lifelong Activities**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Designed to give students a broad variety of noncompetitive/nonconventional activities and sports that are beneficial as lifetime sports. Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3262 - Methods of Teaching Individual Sports**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

The purpose of this course is to provide prospective physical education teachers experiences that will lead to skill acquisition, the ability to analyze, diagnose and correct errors in skill performance, the development of skills, drills, and game progressions, and the pedagogical skills needed to teach a variety of individual sports (e.g., golf, swimming, and track and field). Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3264 - Skill Development and Methods of Teaching Racket Sports**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to provide prospective physical education teachers experiences that will lead to skill acquisition, the ability to analyze, diagnose and correct errors in skill performance, the development of skills, drills, and game progressions, and the pedagogical skills needed to teach a variety of racket sports (e.g., badminton, racketball, and tennis/pickleball). Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3270 - Methods of Teaching Aerobic Conditioning**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Examine, evaluate and practice aerobic conditioning theories and current practices for the purpose of preparing entry level professionals to select, incorporate, and facilitate appropriate aerobic activities, as well as, design and evaluate the effectiveness of aerobic conditioning programs. Two lecture/labs per week. Prerequisite: PEP 2000, PEP 2600 or concurrent enrollment in PEP 2000 or PEP 2600. Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3280 - Methods of Teaching Strength and Conditioning**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Examine, evaluate and practice strength and conditioning theories and current practices for the purpose of preparing entry level professionals to select, incorporate, and facilitate appropriate conditioning activities, as well as, design and evaluate the effectiveness of strength and conditioning programs. Two lecture/labs per week. Prerequisite: PE 1080.

### **PEP 3290 - Methods of Teaching Fitness for Life**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to introduce the fundamental principles of cardiovascular fitness, flexibility, and strength development, as well as to assist each individual to design and implement their own personal fitness program based on individual needs, assessments, and personal preferences. Students will explore resources for and methods of teaching the

principles of fitness in the secondary school setting. This is a required course for the physical education major and the physical education/coaching minor. Prerequisite/Co-requisite: Prerequisite or concurrent enrollment in PEP 2000.

### **PEP 3310 - Techniques for Teaching Aquatics**

**Credits: (2)**

Practice of swimming and related aquatic skills, teaching techniques for all levels of swimming, and the acquisition of materials to use for teaching swimming. Course leads to American Red Cross certification as a Water Safety Instructor. Prerequisite: Skills screening will be required.

### **PEP 3320 - Techniques for Teaching Lifeguarding**

**Credits: (2)**

**Typically taught:**

**As Needed**

Professional techniques and methods in teaching water safety, educational programs, lifeguard training and reviews, and lifeguard progressions are taught. This course leads to Red Cross certification as a lifeguard instructor.

### **PEP 3400 - Sport Psychology for Coaches**

**Credits: (3)**

This course involves understanding the study and analysis of human behavior patterns as they relate to sport performance. Students (coaches) are provided with necessary information regarding mental processes, and applicable uses for this information. Recommended Prerequisite: PSY 1010.

### **PEP 3520 - Curriculum and Assessment**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Course emphasis is on developing curriculum necessary to meet the needs of diverse learners. Emphasis is also on development of assessment strategies that correctly match objectives and instruction. The students are given a basic understanding of the statistical use of data for grade determination. Students will have hands on experience in designing and implementing various assessments and grading methods relating to physical education objectives. Students will also be provided the opportunity to learn how to design and implement lessons using up-to-date forms of technology that are currently being used in public schools. Prerequisite: PEP 3100 and 6 credits of PEP 3630, PEP 4700, PEP 4710, program admission. Co-Requisite: PEP 3520L.

### **PEP 3520L - Curriculum and Assessment Lab**

**Credits: (1)**

This course will avail students a practicum opportunity to apply in an area K-12 school the theory learned and the curriculum prepared in the Curriculum and Assessment PEP 3520 course. Students will develop lessons and assessments to determine students learning and implement them in a teaching experience in the school setting. Co-Requisite: PEP 3520.

### **PEP 3600 - Measurement and Statistics in Exercise Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

The selection, administration, and interpretation of measurement techniques and statistical procedures for the purpose of evaluation and research as related to exercise science and health promotion. Prerequisite: Meet WSU Quantitative Literacy requirement and complete WEB 1700.

### **PEP 3610 - Assessment/Technology in Physical Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed to help students develop assessment strategies that correctly match objectives and instruction. The students are given a basic understanding of the statistical use of data for grade determination. Students will have hands on experience in designing and implementing various assessment (affective, cognitive, and psychomotor) and grading methods relating to physical education objectives. Students will also be provided the opportunity to learn how to design and implement lessons using up-to-date forms of technology that are currently being used in public schools. Prerequisite: A minimum of 3 Skill Development and Methods of Teaching Courses.

### **PEP 3620 - Methods of Teaching Physical Education and Health for Elementary Teachers**

**Credits: (3)**

The course is designed to provide students with instructional methods, activities and skills for teaching Physical Education K-6 and Health Education. The course will include a 15-hour hands-on-practicum teaching experience in an area public school. The content of this course will be presented through various instructional strategies and teaching models. Prerequisite/Co-requisite: Prerequisite/Co-requisite: EDUC 3100.

### **PEP 3630 - Methods of Teaching Elementary School Physical Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides prospective elementary physical education teachers with the knowledge, skills, and experience necessary to delivering quality physical education lessons for elementary school-aged students. Principles, concepts, strategies, classroom management, skill development, and assessment will be explored. Prerequisite: PEP 2000 or PEP 3100.

### **PEP 3660 - Adapted Physical Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of this course is to introduce and explore various congenital and acquired disabilities as well as gain an understanding of the legal mandates for individuals with disabilities and their educational rights. Particular emphasis and focus of this course will be on the application of various teaching methodologies to ensure inclusion for all in the physical education learning environment. In addition to meeting in the classroom, students will be required to participate in practicums both in the local school systems and at Weber State University. Prerequisite: PEP 3100; 3 classes of PEP 3240 - 3290.

### **PEP 4700 - Methods of Teaching Junior High School Physical Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides prospective Junior High School physical education teachers with the knowledge, skills, and experience necessary to delivering quality physical education lessons for Junior High School-aged students. Principles, concepts, strategies, classroom management, skill development, and assessment will be explored. Prerequisite: PEP 2000, PEP 3100.

### **PEP 4710 - Methods of Teaching High School Physical Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Provides prospective high school physical education teachers with the knowledge, skills, and experience necessary to delivering quality physical education lessons for high school-aged students. Principles, concepts, strategies, classroom management, skill development, and assessment will be explored. Prerequisite: PEP 2000, PEP 3100.

### **PEP 4800 - Individual Projects**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A comprehensive study of a significant problem in the field of physical education. Hours to be arranged. For seniors only. May be repeated 3 times up to 4 credit hours.

### **PEP 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Individualized readings and investigation of professional literature and its application to current and future specialized topics supervised by a faculty member. Extensive reading and formal writing required. Hours to be arranged. For seniors only. May be repeated 2 times up to 3 credit hours.

### **PEP 4860C - Field Experience Coaching**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Work experience which applies prior academic learning in a supervised setting. Prerequisite: PEP 2600, Junior/Senior status and department approval.

## **PEP 4920 - Short Courses, Workshops, Institutes and Special Events**

**Credits: (1-4)**  
**Typically taught:**  
**As Needed**

May be repeated 3 times up to 4 credit hours.

## **PEP 4990 - Field Experience/Senior Seminar**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

This course is designed to provide students with the opportunity to gain practical experiences in the field of physical education by teaching a class or classes in local public school grades 6-12. The course is also designed for students to meet and discuss a variety of issues relevant to preparing students to be physical educators. Prerequisite: PEP 3520, 12 credits of PEP 3240 - 3290. No substitutions can be made for this course.

## **PEP 6010 - Leadership in Physical Education**

**Credits: (3)**  
**Typically taught:**  
**As Needed**

Designed to provide graduate students with an understanding of both theoretical and practical aspects of leadership in their respective fields of study. The ultimate goal of the course is to encourage daily application of leadership concepts in the personal and professional lives of the students.

## **PEP 6100 - Current Trends in Health and Physical Education**

**Credits: (3)**  
**Typically taught:**  
**As Needed**

A study of health and physical education perspectives with an emphasis on the changes, trends, and future prospects that will affect the profession and the needs of those they serve.

## **PEP 6370 - Exercise Management for Special Populations**

**Credits: (2)**  
**Typically taught:**  
**As Needed**

Exercise management for populations with special conditions. Overview of each condition's unique physiology, effects of the condition on the exercise response, effects of exercise training on the condition, and recommendations for exercise testing and programming are presented in a selected topics format. Prerequisite: ESS 2300 and ESS 3510.

## **PEP 6420 - Curriculum in Physical Education**

**Credits: (3)**  
**Typically taught:**  
**As Needed**

Designed to provide an understanding of the role and importance of physical education in today's society, steps involved in curriculum planning, trends and issues in curriculum and to orient the student to various ideas in curriculum design.

### **PEP 6520 - Improving Physical Education**

**Credits: (3)**

**Typically taught:**

**As Needed**

Designed for elementary classroom teachers to provide an opportunity for the teacher to further develop teaching skills, personal performance skills, knowledge and competencies. A major goal of this course will be to help the classroom teacher gain additional confidence in teaching physical education activities.

### **PEP 6830 - Motor Learning**

**Credits: (3)**

**Typically taught:**

**As Needed**

An in-depth study of the psychomotor domain of development. Special emphasis is given to skilled performance, learning theory, motor abilities, individual differences, developmental considerations, instructional and training procedures. Secondary school and athletic populations are considered regarding these topics.

### **PHIL 1000 HU - Introduction to Philosophy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

An introduction to the methods and problems of philosophy, with special emphasis on topics pertaining to the nature of reality, the theory of knowledge, and value theory.

### **PHIL 1120 HU - Contemporary Moral Problems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem]**

An introduction to ethical theories and their application to contemporary moral issues, such as human cloning, abortion, and physician-assisted suicide.

## **PHIL 1250 HU - Critical Thinking**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Online]**

An introduction to informal logic, focusing on issues of logical form, standards of good and bad reasoning, and argumentative writing.

## **PHIL 2200 - Deductive Logic**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to the concepts and methods of modern symbolic logic. Emphasis is placed on problems of translating English expressions into logical symbols, on the development of skills in using the formal proof procedures of sentential and predicate logic, and development of the predicate calculus.

## **PHIL 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and number of credits authorized will appear on the student's transcript. May be repeated three times for a maximum of 6 credits.

## **PHIL 3010 - History of Philosophy: Classical & Medieval**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A survey of the major philosophers and issues from the Presocratics to the beginning of the early modern period, covering such major figures as Plato, Aristotle, Plotinus, Augustine, and Aquinas.

## **PHIL 3020 - History of Philosophy: Modern**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A topical survey of the major philosophers and issues from the seventeenth century to the beginning of the nineteenth century (Descartes to Kant).

## **PHIL 3150 - Existentialism**

**Credits: (3)**

An examination of central themes in Existentialism, including anxiety, dread, freedom, awareness of death, and the consciousness and meaning of existence. These themes will be traced through the writings of such writers as Kierkegaard, Nietzsche, Heidegger, Camus, Sartre, and Simone de Beauvoir.

### **PHIL 3200 - Philosophy of Democracy**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

An examination of the ideals of and justifications for democratic institutions.

### **PHIL 3250 - Philosophy of Law**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An examination of central topics in the philosophy of law, including the relationship between law and morality, the justification of punishment, and legal reasoning.

### **PHIL 3350 - Medical Ethics**

**Credits: (3)**

A survey of fundamental moral issues arising from the practice of medicine and from advances in medical science.

### **PHIL 3500 - Philosophy of Western Religion**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A survey of topics in the philosophy of religion, especially as they pertain to Judaism, Christianity, and Islam.

### **PHIL 3550 - Philosophy of Eastern Religion**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An examination of classic philosophical issues in Eastern religious thought, with a special emphasis on Hinduism, Buddhism, Taoism, and Confucianism.

### **PHIL 3650 - Aesthetics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

An examination of philosophical issues concerning the nature and importance of aesthetic experience and appreciation in the arts and the environment, including questions about the definition of art, artistic representation and expression, and aesthetic value.

### **PHIL 4400 - Great Issues in Philosophy**

**Credits: (3)**

A selected study of one of the traditional questions of philosophy, such as the nature of knowledge and truth, the mind/body problem, free will/determinism, and the nature of moral/aesthetic value. May be repeated once up to six credits covering a different topic.

### **PHIL 4450 - Great Thinkers of Philosophy**

**Credits: (3)**

Selected study of the major works of a single central figure in philosophy. Philosophers whose works may be taught include, but are not limited to: Plato, Aristotle, Augustine, Aquinas, Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume, Kant, Nietzsche, Mill, and Wittgenstein. May be repeated once up to six credits covering a different philosopher.

### **PHIL 4510 - Metaphysics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of enduring topics concerning the nature of reality, such as the mind/body problem, free will/determinism, the problem of universals, and the existence of God. Historical and contemporary philosophers are discussed.

### **PHIL 4520 - Epistemology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A study of enduring topics in the theory of knowledge, such as the nature of justification; the relationship between knowledge, justification, and belief; the nature of truth; and sources of knowledge. Historical and contemporary philosophers are discussed.

### **PHIL 4530 - Philosophy of Mind**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A study of enduring topics in the philosophy of mind, such as the nature of mind; the mind-body problem; consciousness; the individuation of mental content; artificial intelligence. Historical and contemporary philosophers are discussed.

### **PHIL 4540 - Philosophy of Language**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A survey of central topics in the philosophy of language, including semantic content, speech acts, and the connection between meaning and truth. Historical and contemporary philosophers are discussed.

### **PHIL 4600 - Ethical Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

An in-depth study of western ethical theories, including utilitarianism, Kantian ethics, virtue ethics, and social contract theory.

### **PHIL 4810 - Experimental**

**Credits: (1-6)**

May be repeated 5 times up to 6 credit hours.

### **PHIL 4830 - Directed Readings**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individually designed tutorial for philosophy minors and majors, intended to satisfy program requirements not available through scheduled class offerings. May be repeated 8 times for a maximum of 9 credits.

### **PHIL 4900 - Senior Capstone Seminar**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A comprehensive review of the various areas of philosophy and an in-depth study of a single philosopher with the goal of producing a substantial thesis paper.

### **PHIL 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and number of credits authorized will appear on the student's transcript. May be repeated three times for a maximum of 6 credit hours.

### **PHYS 1010 PS - Elementary Physics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A brief survey of physics at the introductory level. Topics covered include laws of motion, gravity, energy, light, heat, sound, electricity, magnetism, atomic and nuclear physics, radioactivity, and relativity. Three hours of lecture per week.

### **PHYS 1040 PS - Elementary Astronomy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

A brief survey of the physical universe using the fundamental laws of physics. Topics include the history of astronomy,

the solar system, the sun, the evolution of stars, pulsars, black holes, the Milky Way galaxy, galaxies, quasars, and the Big Bang. Three hours of lecture per week. Cross-listed with ASTR 1040.

### **PHYS 1360 PS - Principles of Physical Science**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A lecture/laboratory course designed to provide an introduction to the scientific method and its application to the study of selected topics in physics and chemistry. Two hours of lecture and one 3-hour lab per week. Recommended for Elementary Education majors.

### **PHYS 2010 PS - College Physics I**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

First semester of a two-semester sequence in general physics, primarily for students in pre-medicine, pre-dentistry, technology and other disciplines requiring physics without calculus. This semester covers topics in mechanics, including kinematics, Newton's laws, and the conservation laws of energy, linear momentum, and angular momentum. Also covered are topics in gravity, fluid mechanics, waves, and thermodynamics. Class meets five hours per week in lecture/discussion format. One 3-hour lab per week (PHYS 2019). Prerequisite: MATH 1060.

### **PHYS 2015 - College Physics I Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

One 3-hour lab per week. Co-Requisite: PHYS 2010. Enrollment limited to transfer students.

### **PHYS 2020 - College Physics II**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Second semester of a two-semester sequence in general physics. This semester covers topics in electricity and magnetism, electromagnetic waves, light and optics, relativity, atomic, and nuclear physics. Class meets five hours per week in lecture/discussion format. One 3-hour lab per week (PHYS 2029). Prerequisite: PHYS 2010.

### **PHYS 2025 - College Physics II Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

One 3-hour lab per week. Co-Requisite: PHYS 2020. Enrollment limited to transfer students.

### **PHYS 2040 PS - Principles of Observational Astronomy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introductory course in observational astronomy. Topics will include planetary, stellar, and galactic astronomy, with a focus on modern observational techniques, including digital imagery, spectroscopy, and observing with science-grade astronomical instrumentation. *Cross-listed with ASTR 2040*. Prerequisite: MATH 1060 (minimum grade of C).

### **PHYS 2090 PS - Environmental Physics - Energy and Power**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An interdisciplinary course dealing with the chemical and physical concepts of energy and power. Emphasis will be placed on the emerging energy crisis, effects upon the environment and the quality of life.

### **PHYS 2210 PS - Physics for Scientists and Engineers I**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

First semester of a two-semester sequence in calculus-based physics, primarily for students in science, math, computer science, and pre engineering. This semester covers topics in mechanics, including kinematics, Newton's laws, and the conservation laws of energy, linear momentum, and angular momentum. Also covered are topics in gravity, fluid mechanics, waves, and thermodynamics. Class meets five hours per week in lecture/discussion format. One 3-hour lab per week (PHYS 2219). Co-Requisite: MATH 1210.

### **PHYS 2215 - Physics for Scientists and Engineers I Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

One 3-hour lab per week. Co-Requisite: PHYS 2210. Enrollment limited to transfer students.

### **PHYS 2220 - Physics for Scientists and Engineers II**

**Credits: (5)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Second semester of a two semester sequence in calculus-based physics. This semester covers topics in electricity and magnetism, electromagnetic waves, light and optics, relativity, and quantum, atomic, and nuclear physics. Class meets five hours per week in lecture/discussion format. One 3-hour lab per week (PHYS 2229). Prerequisite: PHYS 2210. Co-Requisite: MATH 1220.

### **PHYS 2225 - Physics for Scientists and Engineers II Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

One 3-hour lab per week. Co-Requisite: PHYS 2220. Enrollment limited to transfer students.

### **PHYS 2229 - Physics for Scientists and Engineers II Lab**

**Credits: (0)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

One 3-hour lab per week. Co-Requisite: PHYS 2220.

### **PHYS 2300 - Scientific Computing for Physical Systems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to computer programming and fundamental numerical algorithms as used for problem solving and visualization in the natural sciences. Applications may include nonlinear dynamics, chaos, many-particle systems, and Monte Carlo techniques. Prerequisite: PHYS 2210, MATH 1210, and either MATH 1200 or CS 1030 or permission of the instructor.

### **PHYS 2600 - Laboratory Safety**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An interdisciplinary, team-taught course that will be an overview of the major chemical, biological and physical safety issues related to science laboratories and field work. Class will meet once per week and will be taught in a lecture/demonstration format.

### **PHYS 2710 - Introductory Modern Physics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Relativity, quantum effects, the hydrogen atom, many-electron atoms, molecular and solid-state bonding, quantum effect devices, nuclear structure, nuclear reactions and devices, elementary particles. Prerequisite: PHYS 2220, MATH 1200 (may be taken concurrently), and MATH 1220.

### **PHYS 2800 - Introductory Individual Research Problems**

**Credits: (1-3)**

Time and credit to be arranged. Intended for students working on a directed research project which includes physics/astronomy at the lower division level for one or more semesters. Prerequisite: Consent of instructor. Cross-listed with ASTR 2800. May be repeated up to 10 times.

### **PHYS 2830 - Introductory Readings in Physics/Astronomy**

**Credits: (1-3)**

Time and credit to be arranged. Intended for students working on a directed reading project which includes physics/astronomy at the lower division level for one or more semesters. Prerequisite: Consent of instructor. Cross-listed with ASTR 2830. May be repeated up to 10 times.

### **PHYS 2890 - Cooperative Work Experience**

**Credits: (1-6)**

Open to all students in the Physics Department who meet the minimum Cooperative Work Experience requirements of the department. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by the department.

### **PHYS 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **PHYS 3160 - Stellar and Planetary Astrophysics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Selected topics in astrophysics, with a focus on stellar and planetary systems. Topics may include celestial mechanics, interaction of light and matter, stellar and planetary spectroscopy, stellar atmospheres and interiors, binary star systems, planets and planet formation, and extrasolar planets. Prerequisite: PHYS 2220. Cross-listed with ASTR 3160.

### **PHYS 3170 - Galaxies and Cosmology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Selected topics in astrophysics, with a focus on galactic astronomy and cosmology. Topics may include gravitational dynamics, interaction of light and matter, galaxy classification, galaxy formation and evolution, the structure of the universe, cosmology, and the origin and fate of the universe. Prerequisite: PHYS 2220. *Cross-listed with ASTR 3170.*

### **PHYS 3180 - Thermal Physics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to thermodynamics and statistical mechanics. Topics include heat and work; ideal gases; equipartition of energy; entropy; the Boltzmann, Fermi-Dirac, and Bose-Einstein distributions; applications to heat engines, refrigeration, chemical equilibrium, phase transitions, blackbody radiation, and properties of solids. Prerequisite: PHYS 2220, MATH 1200 and MATH 1220.

### **PHYS 3190 - Applied Optics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Geometrical and physical optics, lasers, lenses, optical instruments, interference, thin films, interferometry, holography, diffraction, gratings, crystal diffraction, polarization. Two lectures and one 3-hour lab a week. Prerequisite: PHYS 2220 and MATH 1220.

### **PHYS 3300 - Advanced Computational Physics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

This course extends the computational skills developed in PHYS 2300 to address a wider range of problems in modern physics. Students will explore the limits of computational methods and develop techniques suited to high-performance computing. Applications may be chosen from nonlinear dynamics, astrophysics, condensed matter physics, and quantum mechanics. Prerequisite: PHYS 2220 and PHYS 2300.

### **PHYS 3410 - Electronics for Scientists**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An introductory course in electronics for students in physics and other sciences. The course includes D.C. and a.c. circuit analysis using complex impedances and covers basic principles of semiconductor operation, transistors, analog and digital integrated circuits, analog-to-digital conversion techniques used in computer interfacing, and noise. Three lectures and one 3-hour lab a week. Prerequisite: PHYS 2220.

### **PHYS 3420 - Data Analysis, Statistics, and Instrumentation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Intermediate-level course in computer interfacing (data acquisition and analysis) for students in physics and all other sciences. Topics may include: data acquisition with industry-standard software packages, computerized test and measurement, analog-to-digital and digital-to-analog conversion, data acquisition electronics, electronic sensors (thermal sensors, light sensors, etc.), least squares curve fitting, fast Fourier transforms (FFT), Nyquist's theorem, noisy and weak signals. Two lectures and one 3-hour lab a week. Prerequisite: PHYS 2020 or PHYS 2220.

### **PHYS 3500 - Analytical Mechanics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Particle motion, oscillating systems; planetary motion, stability of orbits; collisions; Euler's equations, gyroscopic motion; Lagrange's equations, Hamilton's equations, theory of vibrations. Prerequisite: PHYS 2220, MATH 1200 and MATH 2280.

### **PHYS 3510 - Electromagnetic Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Vector analysis; electrostatics; calculating electric potentials; solving Laplace's equation; multipole expansions; electrostatic fields in matter; magnetostatics; charges in motion; electrodynamics; Faraday's law; Maxwell's equations.

Prerequisite: PHYS 2220, MATH 1200, MATH 2210 and MATH 2280.

### **PHYS 3540 - Mechanical and Electromagnetic Waves**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Periodic motions, free and forced vibrations; resonance; normal modes; dispersion; boundary conditions; electromagnetic waves and light; the Fresnel equations; electromagnetic radiation from accelerating charges.

Prerequisite: PHYS 3500, PHYS 3510.

### **PHYS 3570 - Foundations of Science Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A thorough investigation of research in science learning and curricular standards at the state and national levels. Foundations of the philosophy of science and scientific inquiry as applicable to science teaching at the secondary level. This course serves as a foundation to a preservice science teacher's education coursework.

### **PHYS 3710 - Nuclear and Particle Physics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Nuclear structure and nuclear reactions including radioactive decay, fission, and fusion, with selected applications. The standard model of elementary particles and interactions. Collider experiments and their interpretation in terms of Feynman diagrams. Topics of current research at the high-energy frontier. Prerequisite: PHYS 2710.

### **PHYS 4200 - The Physics of Materials**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An introduction to the modern theory of condensed matter. Emphasis is placed on the structural, electrical, and thermal properties of solids, with particular attention to materials of current research interest. Prerequisite: (May also be taken concurrently): PHYS 2710, PHYS 3180, CHEM 1220.

### **PHYS 4400 - Advanced Physics Laboratory**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Advanced experiments in mechanics, electromagnetism, modern physics, and nuclear physics. This course also covers general laboratory practice, data analysis, and error propagation. Four hours of lab per week. Four hours of lab per week. Prerequisite: PHYS 2220; either PHYS 3190 or PHYS 3410.

#### **PHYS 4410 - Materials Characterization Laboratory**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem] even years**

A series of experiments for advanced students employing modern methods of measurement of properties of materials. The course will teach microscopic and spectroscopic techniques and general laboratory practice, data analysis, and error propagation. Four hours of lab per week. Prerequisite: PHYS 2220 and PHYS 3410.

#### **PHYS 4570 - Secondary School Science Teaching Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Acquaintance and practice with various teaching and assessment methods. Development of science curricula including lesson and unit plans. It is recommended that this course be completed immediately before student teaching. Prerequisite: Admission to the Teacher Education Program.

#### **PHYS 4610 - Quantum Mechanics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Wave-particle duality, Schrodinger equation, wave function, quantization rules, one-dimensional motion, one-electron atoms, spin and orbital angular momentum. Prerequisite: PHYS 2710, MATH 2270. Co-Requsite: PHYS 3500; MATH 3710.

#### **PHYS 4620 - Advanced Quantum Mechanics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Approximation methods and other selected topics in pure and applied quantum mechanics. Prerequisite: PHYS 4610.

#### **PHYS 4800 - Individual Research Problems**

**Credits: (1-3)**

Time and credit to be arranged. Open to qualified students for one or more semesters. Prerequisite: Consent of instructor. Cross-listed with ASTR 4800. May be repeated up to 10 times.

#### **PHYS 4830 - Readings in Physics/Astronomy**

**Credits: (1-3)**

Topics which can be studied include (but are not limited to): mechanics, thermodynamics, kinetic theory, statistical mechanics, electronics, electromagnetism, optics, solid-state physics, modern physics, nuclear physics, relativity, cosmology, and astrophysics. These courses may be taken at any time on a personalized basis. Time and credit to be arranged. Prerequisite: Consent of instructor. Cross-listed with ASTR 4830. May be repeated up to 10 times.

### **PHYS 4890 - Cooperative Work Experience**

**Credits: (1-6)**

A continuation of PHYS 2890. Open to all students.

### **PHYS 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **PHYS 4970 - Senior Thesis**

**Credits: (2)**

An individual research program pursued under faculty supervision. It is expected that one or more semesters of research (PHYS 4800) will precede registration for this course. Course evaluation will include an oral and a written report.

Prerequisite: senior class standing and consent of departmental committee.

### **PHYS 4990 - Seminar in Physics**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Joint sessions of faculty and students devoted to current topics in physics. Students taking this course for credit will make a presentation based on individual library research of a topic agreed on with the faculty advisor. One credit required for physics majors. Prerequisite: previous upper division physics course. May be taken twice for credit.

### **PHYS 5030G - Physics for Teachers**

**Credits: (2-3)**

Science content course for teachers in the MEd Science Emphasis Program. To register, select another departmental course and develop a contract detailing additional work required for graduate credit. Contract must be approved by instructor, department chair, and Director of the Master of Education Program. May be repeated once up to 6 credit hours.

### **POLS 1010 - Introduction to Political Science**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Online]**

The purpose of this course is to define the discipline of political science. By discipline we mean the way in which political science has developed over the past 150 years. We will assess the basic sub-disciplines of political science: American, Comparative, International Relations, Political Theory, Public Administration and Public Law.

### **POLS 1100 AI - American National Government**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, 1st Blk, Online]**

A study of American constitutional democracy at the national level, including political institutions, interests, ideals, and the processes through which policies are formulated and implemented.

### **POLS 1520 SS - Leadership and Political Life**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The purpose of the Leadership and Political Life class is to introduce students to the theory and practice of leadership in the public realm, which is applicable to the private sector.

### **POLS 2100 SS - Introduction to International Politics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Examines international politics by juxtaposing the traditional Realist model (power, state sovereignty, Balance of Power) emphasizing state competition and the newer Liberal model (potential nuclear catastrophe, environmental dangers, global economic interdependence) emphasizing global cooperation.

### **POLS 2200 SS - Introduction to Comparative Politics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An introductory survey, comparing and contrasting political ideas, institutions and processes in the political systems of the world to gain a deeper knowledge of, and a broader perspective on, political phenomena.

### **POLS 2300 SS - Introduction to Political Theory**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An examination of the arguments behind and the implications of the dominant theories of politics. Theories that are studied include liberalism, conservatism, socialism, and republicanism, among others. In studying these theories, the works of such theorists as Plato, Aristotle, Locke, Rousseau, Marx, and Mill will be examined.

### **POLS 2400 SS - Introduction to Law and Courts**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introductory survey of law and courts emphasizing the structure of courts, different forms of law, and the various actors involved in legal conflicts.

### **POLS 2500 SS/DV - Human Rights in the World**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Human rights (HR) are a powerful idea in the modern world, but also the focus of controversy. This course will provide students with a broad foundation in human rights including the ability to analyze HR in domestic and int'l law, examine prevention and prosecution techniques, and debate current issues at home and abroad. Emphasis will be placed on women and gender studies (including LGBT issues), vulnerable populations such as refugees, and atrocity crimes.

### **POLS 2700 - Introduction to Public Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

To understand the role of public administration in the United States, this course examines the administrators who manage and implement policy, the tools they use, and the environments in which they work. We will cover the economic, political, and social dynamics within public administration as well as management challenges related to human resources, finance, program development, evaluation, and strategic planning. Introduction to public administration would not be complete without discussions about the values and ethics unique to the public sector. We will be using textbooks, other assigned readings, case studies, simulations of ethical quandaries, and whenever possible hands-on learning experiences. The first half of the course will include historical milestones in the history of the administrative state, the logic of public service and the constitutional context of executive power, and management challenges for the public sector in the 21st century. The second half of the course will focus on the policy cycle, program implementation and evaluation, budgeting, leadership and ethics, and the future of public administration.

### **POLS 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Not currently being offered**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated once up to 6 credit hours with a different title.

### **POLS 2930 - Peacebuilding in Rwanda**

**Credits: (3)**

**Typically taught:**

**Summer [1st Blk]**

In this course, students will travel to Rwanda (Africa) to participate in a Peacebuilding Institute (PBI) with Weber State University and Never Again Rwanda. Weber State students and Rwandan University students will work together for an unforgettable academic experience. Through readings, site visits, lectures from specialists, and group discussions, students will explore themes of genocide, human rights, transitional justice, and good governance. In addition they will develop skills in cross-cultural dialogue exchange.

### **POLS 3140 - Foreign Policy of the United States**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An analysis of the making of American foreign policy with reference to the role and influences of beliefs, interests, public opinion, media and especially the institutional struggle between President & Congress. The challenges facing contemporary U.S. foreign policy will also be examined.

### **POLS 3150 - Model United Nations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of the current events before the United Nations General Assembly as well as in-depth research on selected countries; includes preparation for the Model United Nations of the Far West and the Northern Utah Model UN. May be repeated once for 6 credit hours.

### **POLS 3151 - Model United Nations Team**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course prepares students on the Model UN team for the upcoming Fall/Spring conference. Prerequisite: POLS 3150 with a minimum grade of B. Permission of the instructor. May be repeated up to 12 credit hours.

### **POLS 3210 - Politics and Governments of Europe**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of European political systems with special emphasis on the politics and governments of the United Kingdom, France, and Germany.

### **POLS 3220 - Politics and Governments of Asia**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A study of politics and governments of the major states in the area with particular reference to India, Japan, and China.

### **POLS 3290 - Introduction to Politics and Governments of Developing Nations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A survey of the political patterns of human beings in the process of modernization by studying the role of colonialism, charismatic leader, political parties, ideologies, military, civil service, and social and economic structures, and the impact of development on stability and integration of nations in Africa, Asia, and Latin America.

### **POLS 3330 - American Political Thought**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Historical examination of American thought with stress on its influences on the development of the American Government.

### **POLS 3340 - Environmental Political Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

This is an upper division course in political theory, with the specific focus being environmental political theory. The course examines a range of theoretical perspectives on a range of issues including how we conceptualize humans, nature, and politics.

### **POLS 3400 - Sexual Orientation, Politics, and Law**

**Credits: (3)**

**Typically taught:**

**Fall [odd years]**

Social movements employ a variety of methods to achieve the protection of their members' rights and interests. This course focuses on these issues through the study of LGBT persons in the United States from the mid-twentieth century to the present. It examines the political and legal strategies of LGBT groups in a variety of areas including parental rights, employment, military service, schools, and relationship recognition.

### **POLS 3600 - Political Parties**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of the organization and function of the American political parties, political organizations that play a role alongside political parties in the American political system, such as interest groups, and a comparative study of political parties in other countries.

### **POLS 3610 - Campaigns and Elections**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A study of the electoral process in the United States with an examination of national institutional elections, state and local elections, as well as election rules. Also a study of campaigning techniques in elections at all levels.

### **POLS 3620 - Political Behavior**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

This course is designed to introduce students to the nature of mass political behavior and its role in the political process.

Further, it examines the interaction between and among diverse social groups, the media, and policy makers. The course will also emphasize the political psychology of public opinion formation and political decision of those outside the mainstream political institutions.

### **POLS 3630 - Identity Politics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A study of the nature of identity politics and its role in the political process. This course examines the interaction among diverse social groups and emphasizes the effect of socio-demographic differences on political decisions.

### **POLS 3700 - Bureaucratic Politics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Presents basic theories, concepts, and analysis of current practices and problems in governmental administration.

### **POLS 3750 - Urban Government and Politics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of local government organization and policy problems, with an emphasis on problems of the metropolitan areas.

### **POLS 3760 - State Government and Politics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An examination of governmental organization, operation, policy making, and electoral politics of state governments and the dynamics of relationships with other levels of government.

### **POLS 3780 - Lobbying: Theory and Practice**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course looks at both the theory and practice of lobbying, primarily at the state and local governmental levels; and it examines the business of lobbying, how the profession of lobbying has developed, what lobbyists do, the ethical constraints of lobbying, and from where the right to petition the government is derived.

### **POLS 3990 - Political Analysis**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to the scope and methods of political science. This course focuses on the formulation of hypotheses, the

collection of data, appropriate study design, and study analysis through statistical testing and interpretation.  
Prerequisite: POLS 1010.

### **POLS 4020 - American Constitutional Law I**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

An introduction to many of the doctrines of American Constitutional Law from the Founding to the New Deal. Topics include constitutional theory; congressional, executive, and judicial power; the relationship between federal and state governments; and fundamental rights.

### **POLS 4030 - American Constitutional Law II**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

An introduction to many of the doctrines of American Constitutional Law from the New Deal to current experience. Topics include constitutional theory; judicial, executive, and congressional power; the relationship between federal and state governments; and fundamental rights, in particular free speech, religious freedom, equal protection, and privacy rights.

### **POLS 4060 - Law and Society**

**Credits: (3)**  
**Typically taught:**  
**Not currently being offered**

This course explores how law operates in society and how society influences the nature of the law. Topics may include the role of race in law, legal consciousness, efficacy of legal action, and the nature of the legal profession.

### **POLS 4100 - Free Speech in Law and Politics**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

This course explores the historical meaning of free speech in the United States, the modern development and application of free speech principles in constitutional law, and how other countries deal with free speech disputes.

### **POLS 4160 - Topics in World Politics**

**Credits: (3)**  
**Typically taught:**  
**Not currently being offered**

The study of selected contemporary problem areas in world politics to assess their impact within the international arena. Diversity credit is available when the selected topic is "Topics in World Politics: Third World Women." May be repeated for a maximum of 6 hours toward the hours required for Political Science majors and only 4 hours will be counted toward the political science minor requirement.

### **POLS 4180 - International Law and Organization**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An examination of the basic principles of international law and organization. Emphasis is given to the sources and evolution of international law, and a study of the League of Nations and the United Nations.

### **POLS 4190 - Theories of International Politics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

An analysis of traditional and contemporary theories offered to explain politics in the international arena.

### **POLS 4280 - Foreign Policies of Major Powers**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

**Summer [Online]**

An examination of the foreign policies of major powers including the United States, Britain, China, France, Germany, India, Japan, and Russia.

### **POLS 4360 - Classical Political Thought**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An examination of ideas of God, human nature, society, the state, the problem of evil, etc., from Ancient Greece to the middle ages.

### **POLS 4380 - Modern Political Thought**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A survey of political theory from the 17th century to the present, with a focus on theoretical formulations and critiques of democratic government and the political subject.

### **POLS 4600 - American Congress**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of the United States Congress and its members. This course examines the legislative decision making process as well as an emphasis on the history of the institution.

### **POLS 4620 - The U.S. Supreme Court**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

A study of the U.S. Supreme Court as a legal and political institution. This course examines the historical development of the Supreme Court, its relationship to other institutions, and judicial decision-making.

### **POLS 4640 - American Presidency**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A study of the United States presidency and the people who have held the office. This course examines individual presidential character and personality as well as providing a survey of the history of the institution.

### **POLS 4750 - Public Policy Analysis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

A study of the American policy process, with an emphasis on the dynamics involved in the creation, adoption and implementation of selected domestic policies.

### **POLS 4760 - Rwanda: Genocide and Aftermath**

**Credits: (3)**

**Typically taught:**

**Summer [Online]**

This course will examine the 1994 Rwandan genocide and its aftermath. The class will discuss the historical legacy of colonialism and the impact that post-colonial policies had in pre-genocide Rwanda. Next, the events surrounding the genocide within Rwanda will be discussed in addition to its immediate impact on the surrounding Great Lakes countries of Africa. Finally, the legacy of the Rwandan genocide will be examined, especially in regards to politics and international law. Specific issues to be addressed include the complex relationship between political and legislated memories, ethnic identities before and after the genocide, the creation and implementation of transitional justice measures including the national courts, gacaca courts, and the International Criminal Tribunal for Rwanda.

### **POLS 4800 - Individual Projects and Research**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A maximum of 6 hours may be counted toward the major or 3 hours toward the minor. Prerequisite: Department approval required.

### **POLS 4830 - Directed Readings**

**Credits: (1-2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

A maximum of 6 hours may be counted toward the major or 3 hours toward the minor. Prerequisite: Department approval required.

### **POLS 4860 - Washington D.C. Internships**

**Credits: (1-6)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

A maximum of 6 hours may be counted toward the major or 3 hours toward the minor. Prerequisite: Department approval required.

### **POLS 4861 - International Internships**

**Credits: (1-6)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Internships located outside of the United States. Department approval required. A maximum of 6 hours may be counted toward the major or 3 hours toward the minor.

### **POLS 4865 - State and Local Internship**

**Credits: (1-6)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

State or Local internship credits. Professor approval required. May be repeated up to 5 times and up to 6 credit hours.

### **POLS 4870 - Internship in Perspective**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

This course is designed to put the internship experience in broader context. Students will read books and articles on current issues and then focus on the way that government and non-governmental institutions combine to make policy. In this students will take their political science knowledge and apply it to practical politics. Co-Requisite: POLS 4860.

### **POLS 4880 - Internship Research**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course is designed to complement the student intern's experience while in the placement. This course is designed to give the student a chance to do a research project based on his or her experience in the internship. The research evolves out of assignments given at the internship. Prerequisite: POLS 4860.

### **POLS 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Typically taught:**

**Not currently being offered**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated once up to 6 credit hours with a different title.

### **POLS 4940 - Topics in American Politics & Thought**

**Credits: (3)**

**Typically taught:**

**Not currently being offered**

The study of selected contemporary problem areas in American politics and thought to assess the impact and implication within the U.S. domestic arena. This course may count once to satisfy a subfield requirement at the discretion of the department chair. This course may be repeated once up to 6 credit hours (in different topics).

### **POLS 4990 - Senior Seminar/Senior Thesis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A seminar in the field of political science. Students will be required to produce a major paper out of this seminar.

Required for Political Science majors. Prerequisite: POLS 1010. Department approval required. Note: Political Science BS students must take POLS 3990 before POLS 4990.

### **PS 1143 - Fundamental Selling Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A retail, wholesale, and direct selling course. Emphasis upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.

### **PS 1303 - Sales Channels**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Examination of the distribution process of goods and services, the interrelationships of customer demands, production, pricing, promotion, and the movement of goods from producer to consumer.

### **PS 1401 - Introduction to Sales and Service Technology**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

This course is designed to help those new PS majors or those exploring the PS major field learn more about the career/employment options available. This course is also designed to review the various academic emphases, major requirements, and decision making process.

### **PS 1403 - Introduction to Customer Care**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the basic techniques for providing quality service to clients.

### **PS 1503 - Introduction to Fashion Merchandising**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

A study of the Fashion Merchandising industry, including careers in design, manufacturing, wholesaling, promotion, and retailing, including well-known designers, manufacturers, promotion media and apparel and accessory retail institutions.

### **PS 1890 - Work Experience**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to all first year declared majors in Professional Sales. Provides academic credit for on-the-job experience. Grade and amount of credit will be determined by department. May be repeated a maximum of 3 times or until a maximum of 6 credit hours is reached.

### **PS 2182 - Credit and Collection Methods**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

The study of specific credit and collection methods for retail, wholesale, and service industries; including cost of retail credit, credit investigation, methods of collecting bad accounts, securing new business through credit applications, and credit control.

### **PS 2383 - Retail Merchandising and Buying Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

The study of the retail buyer's duties, different buying organizations, and techniques, procedures of purchasing merchandise for resale and retail merchandising strategies.

### **PS 2443 - Advertising Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A study of advertising methods as they relate to local retail, wholesale, and service industries, including newspaper, magazine, radio, TV, mail, outdoor and special promotion events.

### **PS 2603 - Advanced Selling Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Study of advanced techniques including, opening, investigating, demonstrating capability and obtaining commitment of the consultative and strategic seller.

### **PS 2703 - Internet Sales and Service**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

The study of Internet sales, service and technology. Understanding the process of establishing an online business, setting up online shopping capabilities and database integration. Online customer service and retention, buyer behavior and current Internet sales issues are presented.

## **PS 2890 - Work Experience II**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Open to second year declared majors in Professional Sales. A continuation of PS 1890. May be repeated a maximum of 3 times or until a maximum of 6 credit hours is reached.

## **PS 2903 - Professional Selling Methodologies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The study of selling and customer service techniques as they apply to virtual, inside and field sales.

## **PS 2991 - Sales/Service Technology Seminar**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

Directed studies, group discussions, and analysis of selected topics pertinent to sales and service technology. Also designed to prepare sales and service majors for the job market and career opportunities. May be repeated until a maximum of 3 credit hours is reached.

## **PS 3001 - Sales Career Strategies**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The study of developing a sales career including finding sales opportunities and how to market yourself into landing those opportunities.

## **PS 3003 - Relational Selling**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The study of relational selling techniques as they apply to virtual, inside and field sales in all industries and sales situations.

### **PS 3103 - Sales Personalities and Profiles**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Discovering and understanding your own personality style and how to adapt to your client for selling success is the focus of this course. We will utilize the Everything DISC Sales assessment to distinguish the 4 behavior styles and the Strengths Finder assessment to utilize our talents throughout the selling process. Prerequisite: PS 1143.

### **PS 3203 - Customer Service Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A study of customer service techniques required in order to sell and service products, systems, or services needed by industrial manufacturing, processing, mining, construction firms, or other related technical areas.

### **PS 3250 - Business Communication**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Application of oral and written communication, including diversity and international aspects of communication. Prerequisite: ENGL 2010.

### **PS 3303 - Technology in Sales**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

This course will teach professional sales people to use sales technologies to (1) attract new clientele (2) strengthen customer relationships (3) expand existing accounts and (4) establish a position as an authority in the field. Prerequisite: PS 1143.

### **PS 3363 - Contract and Sales Negotiation Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Principles, techniques and analysis of strategies involved in contract and sales negotiations. Development of integrated strategies through group and individual interaction. Prerequisite: PS 1143.

### **PS 3403 - Pharmaceutical and Medical Device Sales**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of the opportunities that exist in the medical field as it pertains to selling. The course examines the integral relationship that pharmaceutical and medical device representatives have within the medical community. Prerequisite: PS 1143 and PS 2603.

### **PS 3503 - Sales Planning and Forecasting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem Online]**

A study of sales planning and forecasting. Special emphasis will be given to goal setting, prioritizing, sales forecasting and establishing and managing a sales territory. The student will also learn techniques for individual goal setting and time management. Prerequisite: MATH 1030 or higher.

### **PS 3563 - Principles of Sales Supervision**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Practical application of first-line supervisory skills including choosing, organizing, training, and evaluating entry-level employees; making supervisory decisions; and solving first-line supervisory problems. Understanding the basic responsibilities of a supervisor in production organizations and service organizations.

### **PS 3702 - Developing Team Leadership Skills**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem, Full Sem Online]**

A skills based course designed to develop the interpersonal and leadership skills necessary to work effectively in teams and guide teams through the group stages of development. This course will be facilitated in such a way the participants will learn how to diagnose team developmental level and develop a high performing team by applying the principles of situational leadership and the DISC personality profiles system. Prerequisite: PS 3563.

### **PS 3803 - Sales Proposals**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A study of selling techniques required in order to sell products, systems, or services needed by industrial manufacturing, processing, mining, construction firms, or other related technical areas. Prerequisite: PS 3563.

### **PS 3903 - Sales Presentation Strategies and Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk Online]**

Principles and practices for the five major categories of professional sales consultants. Prerequisite: PS 1143 and PS 3803.

### **PS 4203 - Ethical Sales and Service**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Principles, techniques and analysis of ethics in the sales and service professions. Utilizes group interaction, individualized hands-on experiences and a field based experience. Prerequisite: PS 3563.

### **PS 4610 - Senior Project I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A capstone project for students in their final year of the professional sales degree. Provides hands-on experiences in the areas of sales and service including sales, customer service techniques, presentation strategies, and team leadership development. This course focuses on working with sales and service problems in a departmentally approved work environment. Prerequisite: PS 3103, PS 3363, PS 3903.

### **PS 4620 - Senior Project II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A continuation of PS 4610. Prerequisite: PS 3103, PS 3363, PS 3903.

### **PS 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Individual readings supervised by a faculty member. Prerequisite: Approval of instructor. May be repeated twice for a maximum of 3 credit hours.

### **PS 4920 - Workshop Lecture**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

Upper division workshop class based on honing the skills of identifying a specific target market, investigating the value proposition of a degree and career in Professional Sales and applying sales strategies and packaging a presentation for area high school students. May be repeated up to 3 times for a maximum of 4 credit hours with different content.

### **PS 4993 - Sales Career Seminar**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Research and discussion of sales and service related problems. Also designed to prepare sales and service majors for the job market and career opportunities.

### **PSY 1010 SS - Introductory Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk, Full Sem Online]**

**Spring [Full Sem, 1st Blk, 2nd Blk, Full Sem Online]**

**Summer [Full Sem, 1st Blk, 2nd Blk, Full Sem Online]**

Introduction to the scientific study of human behavior.

### **PSY 1540 - Psychology of Adjustment and Growth**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to introduce students to psychological concepts that are involved with understanding their identity, psychological adjustment, and potential for growth. Students will have an opportunity to learn the psychological principles and processes underlying psychological health and apply the issues in the course to their personal lives. Topics include: managing stress, love and intimacy, relationships, gender issues, sexuality, work and recreation, loneliness and solitude, death and loss, meaning and values, and personal growth.

### **PSY 2000 SS - The Psychology of Human Relationships**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

A systematic review of the research on interpersonal relationships, including the study of multiple factors that contribute to relationship development and functioning and the diverse socio-cultural contexts in which relationships occur.

### **PSY 2010 - Science and Profession of Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

The purpose of this course is to build upon Introductory Psychology so that students may better understand the discipline as both a science and a profession. The course covers a range of topics, including research, statistics, ethics, career options, graduate school options and preparation, critical to all fields of psychology and provides the skills necessary for students to succeed in upper-division courses and career preparation. This course is designed for students who are interested in or beginning to pursue psychology as an academic major or minor. Prerequisite: PSY 1010.

### **PSY 2250 - Learning and Memory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

This course will involve a survey and analysis of the basic processes involved in acquisition, retention, and expression of new behaviors and alterations of existing behaviors in animals and humans. The course will examine the central theoretical concepts and issues in the fields of learning and memory. Prerequisite: PSY 1010.

### **PSY 2370 - Psychology of Women and Gender**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

The philosophical, theoretical, and empirical issues of psychology of gender. Issues include gender differences, stereotypes, androgyny, sexuality, health issues, achievement motivation, gender stereotypes, global women's issues, sexual orientation, issues for women with disabilities, and violence. Prerequisite: PSY 1010.

### **PSY 2730 - Biopsychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Biological basis of human & animal behavior, with emphasis upon sensory and nervous system processes underlying motivation, learning, perception, emotion, & abnormal behavior.

## **PSY 2800 - Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised participation in faculty research projects in various areas of psychology. Written report required at end of semester; oral report assigned at discretion of faculty supervisor. Prerequisite: PSY 1010 and permission of the instructor. May be repeated 4 times for a maximum of 4 credit hours.

## **PSY 2830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent readings or secondary research on advanced special topics under the direction of a faculty mentor. For each hour of credit in a readings project the student is required to read an appropriate number of primary research journal articles and book chapters. A paper written in APA style and oral report are required at the end of the term. Prerequisite: PSY 1010 and faculty mentor permission. May be repeated 4 times for a maximum of 4 credit hours.

## **PSY 2890 - Cooperative Work Experience**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students who meet the following requirements. Provides academic credit for on-the-job learning experience. Learning experiences will be specified in a learning contract. Grade and amount of credit will be determined by the department. Limited to two credit hours per semester and four credit hours counted toward the psychology major and minor from the following courses: PSY 2890, PSY 4890, PSY 4380 and PSY 4390. Federal regulations restrict all Cooperative Work Experience to no more than six semester hours. Must be employed in a position that uses psychological training. By prior permission of instructor only. Prerequisite: PSY 1010. May be repeated 4 times for a maximum of 4 credit hours.

## **PSY 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Variable Title**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: PSY 1010.

## **PSY 3000 - Child Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

Principles and theories of physiological, psychological, emotional, cognitive, personality and social child development and parent-child relations and developmental problems. Prerequisite: PSY 1010.

### **PSY 3010 - Abnormal Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, Full Sem Online]**

An overview of abnormal human behavior, its etiology, symptoms and treatment as seen by current psychological paradigms. Prerequisite: PSY 1010.

### **PSY 3020 - Child and Adolescent Psychopathology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An overview of the etiology, diagnosis, developmental course, treatment, and prevention of disorders first evident in childhood and adolescence. Prerequisite: PSY 1010.

### **PSY 3030 - Health Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course examines how psychological states (e.g. anxiety, stress) influence physical health, and how physical states (e.g. illness, pain) and the environment influence psychological health. Topics will include stress, coping, adherence to treatment, pain, chronic disease, psychoneuroimmunology and health behavior change. The course will emphasize the biopsychosocial model in understanding health and disease. Prerequisite: PSY 1010.

### **PSY 3100 - Psychology of Diversity**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [1st Blk]**

This course examines the psychological issues associated with human diversity including culture, disabling conditions, gender, class, ethnicity, and others. It addresses the psychological principles underlying these issues and offers effective ways of dealing with these issues. Prerequisite: PSY 1010.

### **PSY 3140 - Adolescent Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk, Full Sem Online]**

Principles and theories of physiological, psychological, emotional, cognitive, personality and social adolescent development and parent-adolescent relations and developmental problems. Prerequisite: PSY 1010.

### **PSY 3200 - Psychology of Sport, Injury & Rehabilitation**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

This course is designed to provide a basic understanding of the psychology of sport, injury, and rehabilitation. Topics covered include: emotion, motivation, mental skills training and use, psychological antecedents of injury, psychology of injury and rehabilitation, career transition and termination, disabilities, rehabilitation/exercise adherence, eating disorders, alcohol and drug/substance abuse, gender and cultural diversity, and research methods related to psychology of sport, injury and rehabilitation. Prerequisite: PSY 1010 or HLTH 1110. Cross-listed with AT 3200.

### **PSY 3240 - The Psychology of Drug Use and Abuse**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem] SLCC Miller Campus**

The course addresses the biopsychology factors influencing the use and abuse of drugs and the behavioral and social consequences of such use and abuse. Prerequisite: PSY 1010.

### **PSY 3255 - Conditioning, Learning, & Behavior Modification**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will involve an analysis of the complex processes involved in the acquisition, retention, and expression of new behaviors and the mechanisms related to altering existing behaviors in all types of animals (human and nonhuman). The course will examine the historical and current central theoretical concepts and issues in the fields of conditioning and learning. Additionally, the course will provide you with an understanding of the principles of applied behavioral analysis and modification. Prerequisite: PSY 1010.

### **PSY 3270 - Motivation and Emotion**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] SLCC Miller Campus**

Theories, content areas, research methods, measurement and practical applications in the psychology of motivation and emotion. Prerequisite: PSY 1010.

### **PSY 3430 - Theories of Personality**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk]**

A survey of the major theories of personality. Prerequisite: PSY 1010.

### **PSY 3450 - Psychology of Language**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

This course will provide a comprehensive overview of psycholinguistics. It will focus on the cognitive and social aspects of language production and comprehension in both spoken and written language. Prerequisite: PSY 1010 or ENGL 3010.

### **PSY 3460 - Social Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

An empirically based survey of the effects of social influence on the basic psychological processes of individuals. Included are the individual in culture and society, the development of attitudes, and the impact of the group. Prerequisite: PSY 1010.

### **PSY 3500 - Cognition**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

Principles of cognition and thinking including attention, memory, concept learning, decision making, and problem solving. Prerequisite: PSY 1010.

### **PSY 3550 - Psychology of Consciousness**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

The study of the nature, origins, evolution, and functions of brain, mind and consciousness as these pertain to sensation, perception, learning, memory, cognition, motivation, emotion, behavior, and social relationships from a contemporary neuro-cognitive science perspective. Prerequisite: Introductory Psychology (PSY 1010), Biopsychology (PSY 2730) and instructor consent required; recommend some background in Introductory Philosophy, Perception, and/or Cognition.

### **PSY 3560 - Group Dynamics and Counseling**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Principles of effective small group behavior. Awareness of group forces and pressures and development of insights into personal relationships in groups. Theoretical and experiential approaches to Group Counseling. Prerequisite: PSY 1010.

## **PSY 3600 - Statistics in Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Techniques of data collection and analysis for application to experimental research in Psychology. Prerequisite: Completion of the General Education Quantitative Literacy requirement. This requirement can be met in either of the following three ways: MATH 1030 QL - Contemporary Mathematics (3), OR MATH 1040 QL - Introduction to Statistics (3), OR MATH 1050 QL - College Algebra (4), OR MATH 1080 QL - Pre-calculus (5), OR MATH 2020 QL - Mathematics for Elementary Teachers II (3), OR any WSU Math course for which either MATH 1050 or MATH 1080 is a prerequisite.

A score of 70 or greater on the College Level Math portion of the Accuplacer exam.

Credit recorded on a transcript of a score of 3 or higher on the AP Calculus or AP Statistics exam (Credit by Examination).

## **PSY 3605 - Psychology Statistics Lab**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course covers the application of statistical, database, and graphical software for psychological research analysis and presentation. Prerequisite/Co-requisite: Pre-requisite or co-requisite: PSY 3600 or equivalent.

## **PSY 3610 - Research Methods in Psychology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Scientific methods of behavioral research. Emphasis upon design, conducting, and analysis of experiments on human and animal behavior as well as proposal writing and critiques of experimental literature. Prerequisite: PSY 1010 and PSY 3600 or equivalent with prior approval from the Department Chair. Prerequisite/Co-requisite: PSY 3605 or equivalent with prior approval from the Department Chair.

## **PSY 3615 - Psychological Statistics and Methods I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

This course will focus on the scientific methods of behavioral and psychological research. Specific emphasis will be placed upon research design, study preparation, data collection, and analysis of experiments on human and animal behavior as well as proposal writing and critiques of experimental literature. Prerequisite: MATH 1010 or equivalent and PSY 1010.

## **PSY 3616 - Psychological Statistics and Methods II**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

This course will focus on the scientific methods of behavioral and psychological research. Specific emphasis will be placed upon research design, study preparation, data collection, and analysis of experiments on human and animal behavior as well as proposal writing and critiques of experimental literature. The course will cover experimental and quasi-experimental approaches and the statistical tools associated with these approaches (e.g., ANOVAs). Prerequisite: MATH 1010 or equivalent, PSY 1010 and PSY 3615.

## **PSY 3730 - Perception**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Sensory and perceptual processes whereby living organisms acquire information about the world through the sensory structures, and then select, organize and interpret that information. Prerequisite: PSY 1010.

## **PSY 3740 - Neuropsychopharmacology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides an in depth analysis of drugs on behavior. Topics include how drugs affect the brain, and consequently behavior, the underlying brain and environmental factors thought to be responsible for drug addiction, tolerance, and sensitivity, pharmacological treatment of major psychological disorders, the classification of common psychoactive drugs, and mechanisms of action of commonly abused drugs. Prerequisite: NEUR 2050 or PSY 2730 or instructor approval.

## **PSY 3850 - Forensic Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

A survey course examining the application of fundamental issues in psychology to the criminal justice system. Prerequisite: PSY 1010.

## **PSY 4000 - Advanced General**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A senior level review of modern concepts in all the major areas of psychology. Designed to help a student prepare for the advanced part of the GRE in psychology. Strongly recommended for those who plan to teach psychology. 24 credit hours of psychology courses and instructor approval required. Prerequisite: PSY 1010.

### **PSY 4050 - Evolutionary Psychology**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Examines origins and evolutionary development of early hominid and contemporary human behavior, e.g., competition and cooperation, mating, reproductive and care-giving strategies, and kinship behaviors. Includes ethological, sociobiological, and social psychological perspectives. Prerequisite: PSY 1010.

### **PSY 4090 - History and Systems of Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Early philosophical origins and contributions to psychology; critical contrasts of systems and schools on major issues. 24 credit hours of psychology courses and instructor approval. Prerequisite: PSY 1010.

### **PSY 4100 - Psychology in the Media**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This capstone course will highlight how psychological concepts, principles, and theories are depicted in the popular media (e.g., film, documentary). Students will watch psychologically-relevant media, read classic and contemporary research connected to the concepts depicted in the media, and synthesize what they have learned from these sources in oral and written formats. Students will understand how the discipline of psychology provides a framework for understanding the world as depicted in media. 24 credits of Psychology coursework and instructor approval required. Prerequisite: 24 credits of Psychology coursework and instructor approval.

### **PSY 4310 - Introduction to Counseling Theories**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A didactic introduction to the major theories of counseling and therapy plus an introduction to the research findings associated with effectiveness of therapy and principles of behavioral change. 24 credit hours of psychology courses and instructor approval required. Prerequisite: (Required) PSY 1010 and PSY 3010.

### **PSY 4340 - Skills and Techniques of Counseling**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Provides skills and techniques for counselors, ministers, social workers, and other professionals who serve a helping function. Three hours of lecture and two hours of lab/week. Prerequisite: (Recommended) PSY 4310 or equivalent and permission of the instructor.

### **PSY 4380 - Practicum**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Placement of students in state and community agencies for the purpose of providing supervised practice in application of psychological skills and knowledge. A maximum of four credit hours counted toward the psychology major and minor from the following courses: PSY 2890, PSY 4890, 4380 and PSY 4390. Prerequisite: 18 credit hours of psychology courses, one of which must be PSY 1010. Other courses will be at the discretion of the supervising instructor. Also, permission of the instructor is required.

### **PSY 4390 - Capstone Practicum**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Capstone version of PSY 4380 in which students are placed in state or community agencies for the purpose of providing supervised experiences in applying psychological skills and knowledge. The capstone practicum additionally provides students with an extensive reading list to review with the instructor to better apply their skills and knowledge and understand their experiences on site. 24 credit hours of psychology courses and instructor approval. Prerequisite: PSY 3610 or PSY 3616 (or equivalent) and other specific courses at the discretion of the supervising instructor. Also, permission of the instructor is required.

### **PSY 4510 - Industrial and Organizational Behavior**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

The psychological aspects of the work setting including selection, training, motivation, attitudes, and the effects of the organization. Prerequisite: (Recommended) PSY 1010.

### **PSY 4575 - Psychology of Criminal Behavior**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A comprehensive account of the biological, psychological, and social factors underlying criminal behavior. Prerequisite: PSY 3850.

### **PSY 4760 - Tests and Measurements**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Survey of methods, techniques, and instruments for measuring individual differences in behavior, a critical analysis of representative tests, values and limitations of test, methods of test selection, lab experience with tests. 24 credit hours of psychology courses and instructor approval required. Prerequisite: PSY 1010, PSY 3600 and PSY 3010.

## **PSY 4800 - Projects and Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supervised participation in projects and/or primary research with a faculty mentor in various areas of psychology. Limited to advanced students upon consent of psychology mentor and department chair. A paper written in APA style and an oral report are required at the end of the semester. Prerequisite: PSY 1010, PSY 3600 (Statistics), and PSY 3610 (Research Methods) or equivalent, and faculty mentor permission. May be repeated 3 times for a maximum of 6 credit hours.

## **PSY 4805 - Capstone Projects and Research**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Capstone version of PSY 4800, supervised participation in projects and/or primary research with a faculty supervisor in various areas of psychology. Limited to advanced students upon consent of psychology supervisor and department chair. A paper written APA style and an oral report are required at the end of the semester. 24 credit hours of psychology courses and instructor approval required. Prerequisite: PSY 3610 or PSY 3616 or equivalent, and permission of a faculty supervisor and the chair.

## **PSY 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent readings or secondary research on advanced special topics under the direction of a faculty mentor. For each hour of credit in a readings project the student is required to read an appropriate number of primary research journal articles and book chapters. A paper written in APA style and oral report are required at the end of the term. Prerequisite: PSY 1010, PSY 3600 (Statistics), PSY 3610 (Research Methods) or equivalent, and faculty mentor permission. PSY 3610 may be taken concurrently with PSY 4830. May be repeated 3 times for a maximum of 6 credit hours.

## **PSY 4835 - Capstone Directed Readings**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Capstone version of PSY 4830 which involves independent readings or secondary research on advanced special topics under the direction of a faculty supervisor. Limited to advanced students upon consent of psychology supervisor and department chair. A paper written in APA style and an oral report are required at the end of the semester. 24 credit hours of psychology courses and instructor approval required. Prerequisite: PSY 3610 or PSY 3616 (or equivalent) and permission of a faculty supervisor and the chair.

## **PSY 4890 - Cooperative Work Experience**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Open to all students. Provides academic credit for on-the-job learning experience. Learning experiences will be specified in a learning contract. Grade and amount of credit will be determined by the department. Limited to two credit hours per semester and four credit hours counted toward the psychology major and minor from the following courses: PSY 2890, 4890, PSY 4380 and PSY 4390. Federal regulations restrict all Cooperative Work Experience to no more than six semester hours. Must be employed in a position that uses psychological training. By prior permission of instructor only. Prerequisite: PSY 1010. May be repeated 4 times for a maximum of 4 credit hours.

## **PSY 4900 - Selected Topics in Psychology**

**Credits: (2-3)**

**Variable Title**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth exploration of selected topics and issues in the discipline, designed as an upper division course. May be repeated 3 times for a maximum of 9 credit hours.

## **PSY 4905 - Capstone Selected Topics in Psychology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth exploration of selected topics and issues in the discipline, which fulfills the goals of a capstone class in the discipline. Students will be expected to read, analyze, and integrate research. Prerequisite: PSY 3610 or PSY 3616 (or equivalent) and permission of the instructor.

## **PSY 4910 - Senior Thesis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A research project to be written by a senior student under the supervision of a faculty member. Successful completion of the research project will fulfill the capstone requirement of the major (as an alternative to PSY 4000 or PSY 4090) and the senior project requirement for honors. The student must apply for acceptance into the course (applications available from the chair), and the research proposal and the final project must be approved by a faculty committee. It is expected that the course will be taken once for the writing and defense of a proposal and repeated for the writing and defense of the final project. 24 credit hours of psychology courses and instructor approval required. May be repeated once for a maximum of 6 credit hours.

## **PSY 4920 - Workshops, Institutes and Special Programs**

**Credits: (1-3)**

**Variable Title**

**Typically taught:**

**Not currently offered**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 2 times for a maximum of 3 credit hours.

## **PSY 4950 - Capstone Experience: Promoting Psychological Literacy**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem Online]**

**Spring [Full Sem Online]**

This course is designed for graduating seniors to reflect on and integrate the knowledge and skills acquired during their training in psychology. 24 credit hours of psychology courses and instructor approval required. Prerequisite: PSY 1010.

## **PSY 4990 - Seminar**

**Credits: (1)**

**Variable Title**

**Typically taught:**

**Not currently offered**

Readings and active discussions of selected psychological topics. Repeatable for up to a total of 2 hours.

## **QUAN 2400 - Business Calculus**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Emphasis on applications of quantitative tools to problems in business. Topics include profit maximization, cost functions, demand analysis, and output maximization with budget constraints and resource allocation. Prerequisite: MATH 1050 or 1080 or 1210 with a "C" or higher grade or equivalent as determined by the Math Department.

## **QUAN 2600 - Business Statistics I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Introduction to concepts and applications of statistics in business and economics. Topics include summary statistics, probability distributions of random variables, sampling, and estimation. Class will include use of computers.

Prerequisite: MATH 1050 or 1080 or 1210 with a "C" or higher grade or equivalent as determined by the Math Department.

### **QUAN 3610 - Business Statistics II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Continuation of QUAN 2600. Topics include test of hypotheses, correlation, time series, and multiple regression analysis with specific application to problems in business and economics. Computers will be used extensively in regression analysis. Prerequisite: QUAN 2600.

### **RADT 1022 - Introduction to Radiologic Technology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Program orientation, elementary radiation protection and basic darkroom procedures.

### **RADT 1303 - Principles of Radiographic Exposure I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Theory of x-ray production; image production and radiographic equipment.

### **RADT 1502 - Radiographic Anatomy and Positioning I**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Terminology, pathology and radiographic positioning.

### **RADT 1512 - Radiographic Anatomy and Positioning II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Continuation of RADT 1502. Prerequisite: RADT 1502.

**RADT 1522 - Radiographic Anatomy and Positioning III**

**Credits: (2)**  
**Typically taught:**  
**Summer [Full Sem]**

Continuation of RADT 1512.

**RADT 1532 - Radiographic Anatomy and Positioning IV**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Continuation of RADT 1522. Prerequisite: RADT 1522.

**RADT 1542 - Radiographic Anatomy and Positioning V**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Continuation of RADT 1532.

**RADT 1601 - Laboratory Experience**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**

Patient positioning, darkroom experience and review of radiographic quality.

**RADT 1621 - Laboratory Experience**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Continuation of RADT 1601. Prerequisite: RADT 1601.

**RADT 1641 - Laboratory Experience**

**Credits: (1)**  
**Typically taught:**  
**Summer [Full Sem]**

Continuation of RADT 1621.

### **RADT 1661 - Laboratory Experience**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**

Continuation of RADT 1641.

### **RADT 1681 - Lab Experience**

**Credits: (1)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

### **RADT 2043 - Patient Care and Assessment I**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Patient care and management in radiology.

### **RADT 2272 - Basic Sectional Anatomy**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

The anatomical appearance of each organ system and common pathology on sectional medical images.

### **RADT 2403 - Principles of Radiographic Exposure II**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Radiographic imaging, instrumentation, image production and factors affecting radiologic quality.

### **RADT 2803 - Independent Research**

**Credits: (1-3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Individualized projects. May be repeated 3 times for credit.

### **RADT 2821 - Directed Readings & Research 1**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

**Summer [Full Sem]**

Selecting readings and/or a research project on medical imaging procedures, new technology, patient satisfaction, patient safety, and professional behavior.

**RADT 2822 - Directed Readings & Research 2****Credits: (3)****Typically taught:****Fall [Full Sem]****Spring [Full Sem]****Summer [Full Sem]**

Selecting readings and/or a research project on medical imaging procedures, new technology, patient satisfaction, patient safety, and professional behavior.

**RADT 2823 - Directed Readings & Research 3****Credits: (3)****Typically taught:****Fall [Full Sem]****Spring [Full Sem]****Summer [Full Sem]**

Selecting readings and/or a research project on medical imaging procedures, new technology, patient satisfaction, patient safety, and professional behavior.

**RADT 2824 - Directed Readings & Research 4****Credits: (3)**

Selecting readings and/or a research project on medical imaging procedures, new technology, patient satisfaction, patient safety, and professional behavior.

**RADT 2825 - Directed Readings & Research 5****Credits: (3)****Typically taught:****Fall [Full Sem]****Spring [Full Sem]****Summer [Full Sem]**

Selecting readings and/or a research project on medical imaging procedures, new technology, patient satisfaction, patient safety, and professional behavior.

**RADT 2861 - Clinical Education****Credits: (3)****Typically taught:****Fall [Full Sem]**

Experience gained in a health care facility. Prerequisite: Acceptance into the program.

**RADT 2862 - Clinical Education**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Continuation of RADT 2861.

**RADT 2863 - Clinical Education**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Continuation of RADT 2862.

**RADT 2864 - Clinical Education**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Continuation of RADT 2863.

**RADT 2865 - Clinical Education**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Continuation of RADT 2864.

**RADT 2866 - Final Competency Evaluation**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Demonstration of competency performing the procedures required by the certification agency.

**RADT 2913 - Comprehensive Review**

**Credits: (2)**  
**Typically taught:**  
**Spring [Full Sem]**

Review of didactic and clinical applications.

**RADT 2921 - Workshop, Conferences and Telecourses**

**Credits: (1-3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

May be repeated twice for a maximum of 3 credit hours.

**RADT 2942 - Career Planning and New Technology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Assistance with career planning and an introduction to specialized imaging procedures and new and future imaging procedures.

**RADT 2992 - Seminar**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

Patient case studies and critical care situations. May be repeated once for credit.

**RADT 3003 - Psycho-Social Medicine**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Designed to prepare students to better understand their patient and the patient's family through comparison of diverse populations based on their value systems, cultural and ethnic influences, communication styles, socio-economic influences, health risks and life stages. Study of factors that influence the interrelationships with patients and professional peers. Understanding multicultural diversity assists the student in providing better patient care.

**RADT 3043 - Medical Ethics and Law**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Medical ethics and law and case studies in medical imaging and radiation therapy.

**RADT 3123 - Sectional Anatomy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Anatomical study of the body in the sagittal, transverse and coronal imaging planes.

### **RADT 3143 - Imaging Pathophysiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Imaging adaptations and alterations in anatomy and physiology with variation outside of the normal range.

### **RADT 3243 - Patient Care and Assessment II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

System analysis and advanced level of patient care, assessment and management in radiology.

### **RADT 3253 - Patient Care and Assessment III**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Intravenous therapy, patient care procedures and monitoring during imaging studies.

### **RADT 3263 - Diagnostic Services Pharmacology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Concepts of pharmacology including modes of action, uses, modes of excretion effects, side effects and patient care required for specific pharmacologic agents.

### **RADT 3403 - Radiobiology & Health Physics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Effects of ionizing radiation on the human body, patient and personnel protection, exposure monitoring health physics and oncology.

### **RADT 3423 - Federal Regulations**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Regulations governing health care, equipment and application of ionizing radiation.

### **RADT 3443 - Quality Assurance in Radiology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Development of a quality assurance program and manual to meet accreditation requirements.

### **RADT 3463 - Computerized Imaging**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Digital radiography, image acquisition, image processing and digital image management.

### **RADT 3563 - Managing Clinical Information**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Digital and volumetric imaging, emerging technologies, secure computerized management practice, and patient privacy regulations.

### **RADT 3863 - Clinical Internship**

**Credits: (2-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Experience in a radiology specialty area. Consent of instructor is required. May be repeated twice for credit.

### **RADT 4203 - Patient Education in Radiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

Skills necessary to assess, plan and evaluate a variety of educational programs specific to radiology patients.

### **RADT 4213 - Supervision and Staff Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

Federal regulations, developing department protocol, designing departments personnel supervision and quality of care assessment.

### **RADT 4223 - Promotional Strategies**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Assessment of needs, development and implementation of promotional strategies for Radiology Departments.

### **RADT 4233 - Fiscal Analysis in Radiology**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Justification, acquisition and leasing of imaging equipment and accessories, staffing formulas and review of maintenance contracts.

### **RADT 4243 - Quality Management in Radiology**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Concepts and principles of quality management, collection and analysis of data.

### **RADT 4253 - Risk Management**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Study of management of risk associated with the delivery of health care in clinical and non-clinical settings.

### **RADT 4303 - Cardiology**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Detailed study of the heart: anatomy, physiology, pathophysiology, pharmacology, EKGs and imaging modalities.

### **RADT 4313 - Visceral, Pelvic and Extremity Angiography**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Anatomy, pathology, protocols and interventional procedures of abdominal viscera, extremities and pelvis.

### **RADT 4333 - Head and Neck Angiography**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Anatomy, pathology, protocols and interventional procedures of the aortic arch, brachiocephalic, thyroid and other facial and neck arteries.

**RADT 4343 - Thoracic and Venous Procedures**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Anatomy, pathology, protocols and interventional procedures of the venous and cardiac systems.

**RADT 4403 - Imaging Pathology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Radiographic presentation of pathological conditions, abnormalities and anomalies.

**RADT 4413 - Forensic Radiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course provides a comprehensive study of medical imaging's role in forensic medicine. Forensic Radiology is used to determine identity of remains, evaluate injury or cause of death and assist in the detection of abuse. Junior or Senior standing required.

**RADT 4433 - PACS Administration**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Digital imaging and communication standards, PACS administration, image quality, and emerging technology standards.

**RADT 4443 - Imaging Informatics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Analyzing system needed, project management, quality improvement, bioinformatics, clinical informatics, and medical informatics.

**RADT 4543 - Bone Densitometry**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

This course comprehensively covers the methods of bone density measurement (bone densitometry, DEXA), the

pathogenesis of osteoporosis, quality management issues, therapies for osteoporosis and a review of additional analysis methods.

**RADT 4553 - Breast Anatomy, Physiology and Pathology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Normal breast anatomy and physiology compared to pathological conditions.

**RADT 4563 - Mammographic Positioning/Imaging Techniques**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Routine positions, risk versus benefit; tissue variations, specialized procedures and imaging modalities.

**RADT 4572 - Patient Education and Clinical Examination**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Breast disease and reconstruction methods, breast examination, rehabilitation, medical-legal considerations.

**RADT 4573 - The Female Patient and Medical Imaging**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course will familiarize the student to disease processes specific to the female patient and the imaging methods that may be used in diagnosis and treatment. The clinical pathways that are commonly used, involving all radiologic imaging modalities, will be explored. Students who enroll in this course must be certified by the American Registry of Radiologic Technologists.

**RADT 4583 - Mammographic Equipment and Quality Assurance**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Equipment operation, technical factors and quality assurance procedures in mammography.

**RADT 4603 - Magnetic Resonance Imaging Physics and Instrumentation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Physical principles and theories of magnetic resonance, instrumentation, imaging sequences and methods in normal and abnormal tissue, and computer parameters of magnetic resonance.

### **RADT 4613 - Computed Tomography of the Torso and Limbs**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Sectional anatomy, pathology and imaging protocols of the abdominal viscera, pelvis, thorax and extremities.

### **RADT 4623 - Advanced MRI Procedures and Safety**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Evaluation of organ function and diagnosis of disease process using advanced MRI procedures with emphasis on spectroscopy and functional MR. Includes an in-depth study of MRI safety.

### **RADT 4633 - Magnetic Resonance Imaging of the Central Nervous System**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Sectional anatomy, pathology and imaging protocol of the head, spine and central nervous system.

### **RADT 4643 - Magnetic Resonance of the Torso and Limbs**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Sectional anatomy, pathology and imaging protocols of the abdominal viscera, pelvis, thorax and extremities.

### **RADT 4653 - Computed Tomography of the Central Nervous System**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Sectional anatomy, pathology and imaging protocols of the head, spine and central nervous system.

### **RADT 4663 - Computed Tomography Physics and Instrumentations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Interactions of electromagnetic waves, instrumentation, imaging sequences and computer parameters of computerized tomography imaging.

### **RADT 4803 - Individual Research**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**  
**Summer [Full Sem]**

Research projects developed for district, state, regional or national presentation. May be repeated for a maximum of 3 credit hours.

**RADT 4833 - Directed Readings and Research**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**  
**Summer [Full Sem]**

Synthesis and analysis of journal articles resulting in a research paper for the purpose of publication.

**RADT 4850 - Study Abroad**

**Credits: (1-6)**  
**Variable Title**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated 5 times with a maximum of 6 credit hours.

**RADT 4861 - Clinical Internship**

**Credits: (2)**  
Experience in a radiology specialty area. Consent of instructor is needed.

**RADT 4862 - Clinical Internship**

**Credits: (2)**  
Experience in a radiology specialty area. Consent of instructor is needed.

**RADT 4863 - Clinical Internship**

**Credits: (2-4)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Summer [Full Sem]**

Experience in a radiology specialty area. Consent of instructor is needed. May be repeated twice for credit.

**RADT 4911 - Comprehensive Review/CT**

**Credits: (2)**  
**Typically taught:**  
**Fall [Full Sem]**  
**Summer [Full Sem]**

Preparation for advanced certification examination.

**RADT 4912 - Comprehensive Review/MRI**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Summer [Full Sem]**

Preparation for advanced certification examination.

**RADT 4913 - Comprehensive Review/CIT**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

Preparation for advanced certification examination.

**RADT 4914 - Comprehensive Review/M**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

Preparation for advanced certification examination.

**RADT 4915 - Comprehensive Review/QM**

**Credits: (2)**

Preparation for advanced certification examination.

**RADT 4922 - Workshop, Conferences and Telecourses**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

**RADT 4933 - Research Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Apply research strategies in health care and clinical practice, obtain certificate for human subject research, formulate a research proposal, and complete an institutional review board application.

**RADT 4942 - Current Issues and Trends**

**Credits: (2)**

**Typically taught:**

**Summer [Full Sem]**

Current issues and trends in the health care industry and environment affecting radiology.

**RADT 4943 - Baccalaureate Thesis**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Research in health professions utilizing the scientific inquiry method.

**RADT 4992 - Seminar**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

New developments and procedures in imaging and therapy and preparing for the future. May be repeated for a maximum of 2 credit hours.

**RADT 5864G - Clinical Preceptorship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Continuation of RADT 6863.

**RADT 5867G - Competency Assessment/Residency**

**Credits: (3)**

Assessment of competency knowledge and skills in the clinical setting.

**RADT 6863 - Clinical Preceptorship**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Continuation of MSRS 6862.

### **RATH 4330 - Radiation Therapy Physics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An overview of the profession of radiation therapy. Radiation therapy physics, dosimetry, isodose distribution for isotopes and electrically-produced beams. Mechanics of Linear accelerators and Cobalt.

### **RATH 4342 - Introduction to Treatment Planning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Basic quantities and concepts in radiotherapeutic dosimetry. Current aspects of the anatomical and physical consideration involved in planning and delivery of the therapy prescription.

### **RATH 4410 - Radiation Oncology I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Pathology of cancer; combined therapy and surgery; chemotherapy and radiation therapy; clinical application of treatment techniques; and case studies.

### **RATH 4412 - Radiation Oncology II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Pathology of cancer; combined therapy and surgery; chemotherapy and radiation therapy; clinical application of treatment techniques; and case studies.

### **RATH 4414 - Radiation Oncology III**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Pathology of cancer; combined therapy and surgery; chemotherapy and radiation therapy; clinical application of treatment techniques; and case studies.

### **RATH 4444 - Advanced Treatment Planning/Brachytherapy**

**Credits: (3)**

**Typically taught:**

**Summer [Full Sem]**

Prescription interpretation, nuclide implants, brachytherapy and treatment techniques involving hyperthermia. Beam modification devices and theory of beam placement will be discussed.

### **RATH 4446 - Quality Assurance**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Establishment of a quality assurance program for linear accelerators, simulators and therapeutic isotopes.

### **RATH 4448 - New Technology in Radiation Therapy**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Exploration of the emerging technology and new equipment used in radiation therapy. Prerequisite: Graduate of an approved Radiography Program or equivalent.

### **RATH 4861 - Clinical Education I**

**Credits: (3)**  
**Typically taught:**  
**Fall [Full Sem]**

Clinical education designed to facilitate transference of didactic instruction to practical clinical practice.

### **RATH 4862 - Clinical Education II**

**Credits: (3)**  
**Typically taught:**  
**Spring [Full Sem]**

Clinical education designed to facilitate transference of didactic instruction to practical clinical practice.

### **RATH 4863 - Clinical Education III**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Clinical education designed to facilitate transference of didactic instruction to practical clinical practice.

### **RATH 4913 - Comprehensive Review**

**Credits: (3)**  
**Typically taught:**  
**Summer [Full Sem]**

Review of all didactic and clinical courses and competencies. Guest lecturer and multiple mock registry examinations will be presented.

### **REC 1241 - Mountain Biking, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [1st Blk, 2nd Blk]**

This physical activity course introduces students to mountain biking and trail riding. Students will explore and apply topics to enable safe, independent bike travel over a variety of terrain and surfaces. Course content will focus on trail awareness and selection, choosing appropriate equipment, and basic bike maintenance and repair. May be repeated twice and up to 3 credits.

### **REC 1242 - Mountain Biking, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [1st Blk, 2nd Blk]**

This physical activity course introduces students to mountain biking and trail riding. Students will explore and apply topics to enable safe, independent bike travel over a variety of terrain and surfaces. Course content will focus on trail awareness and selection, choosing appropriate equipment, and basic bike maintenance and repair. May be repeated twice and up to 3 credits.

### **REC 1243 - Mountain Biking, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [1st Blk, 2nd Blk]**

This physical activity course introduces students to mountain biking and trail riding. Students will explore and apply topics to enable safe, independent bike travel over a variety of terrain and surfaces. Course content will focus on trail awareness and selection, choosing appropriate equipment, and basic bike maintenance and repair. May be repeated twice and up to 3 credits.

### **REC 1304 - Backcountry Touring, Level I**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

This physical activity course introduces students to skiing and/or snowboarding safely in the backcountry, outside of resort boundaries where avalanche control and ski patrol are not present. The course covers basic avalanche hazard recognition, evaluation, and mitigation, single-burial avalanche companion rescue, uphill snow travel, and downhill skiing and/or snowboarding techniques for variable snow conditions and hazards.

### **REC 1305 - Backcountry Touring, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

This physical activity course introduces students to skiing and/or snowboarding safely in the backcountry, outside of resort boundaries where avalanche control and ski patrol are not present. The course covers basic avalanche hazard recognition, evaluation, and mitigation, single-burial avalanche companion rescue, uphill snow travel, and downhill skiing and/or snowboarding techniques for variable snow conditions and hazards.

### **REC 1306 - Backcountry Touring, Level III**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

This physical activity course introduces students to skiing and/or snowboarding safely in the backcountry, outside of resort boundaries where avalanche control and ski patrol are not present. The course covers basic avalanche hazard recognition, evaluation, and mitigation, single-burial avalanche companion rescue, uphill snow travel, and downhill skiing and/or snowboarding techniques for variable snow conditions and hazards.

### **REC 1310 - Whitewater Paddling, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

This physical activity course introduces students to the basic skills required for whitewater paddling in a number of potential watercraft such as rafts, kayaks, paddleboards, and canoes. Skills taught include boat maneuvering, reading rapids, and basic rescue skills. May be repeated twice and up to 3 credits.

### **REC 1311 - Whitewater Paddling, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

This physical activity course introduces students to the basic skills required for whitewater paddling in a number of potential watercraft such as rafts, kayaks, paddleboards, and canoes. Skills taught include boat maneuvering, reading rapids, and basic rescue skills. May be repeated twice and up to 3 credits.

### **REC 1312 - Whitewater Paddling, Level III**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

This physical activity course introduces students to the basic skills required for whitewater paddling in a number of potential watercraft such as rafts, kayaks, paddleboards, and canoes. Skills taught include boat maneuvering, reading rapids, and basic rescue skills. May be repeated twice and up to 3 credits.

### **REC 1316 - Stand-Up Paddleboard**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Summer [1st Blk]**

This physical activity course is intended to introduce students to the fundamental skills and knowledge necessary to enjoy Stand Up Paddleboarding (SUP). The course will cover: 1) technical knowledge (i.e., history, terminology, equipment, regulations, safety); 2) technical skills (i.e., carrying, launching, landing, balance, stances, strokes, maneuvers, equipment maintenance); and 3) rescue/safety (i.e. self-rescues).

### **REC 1350 - Scuba Diving, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, 2nd Blk]**

**Spring [Full Sem, 1st Blk, 2nd Blk]**

**Summer [Full Sem, 1st Blk, 2nd Blk]**

**Offered through Continuing Education only.**

### **REC 1351 - Scuba Diving, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A physical activity that engages students in the underwater activity of scuba diving. This Level II course allows students to build on skills developed in Level I. Prerequisite: REC 1350.

### **REC 1404 - Mountaineering, Level I**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk, 2nd Blk]**

**Summer [1st Blk]**

This physical activity course introduces students to the basic skills required for mountaineering, including snow climbing and descending, ice climbing, ice axe use, basic avalanche hazard identification, and technical rope systems in these environments. Course offering dependent on weather and snow pack expectations and conditions. May be repeated twice and up to 3 credits.

### **REC 1405 - Mountaineering, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk, 2nd Blk]**

**Summer [1st Blk]**

This physical activity course introduces students to the basic skills required for mountaineering, including snow climbing and descending, ice climbing, ice axe use, basic avalanche hazard identification, and technical rope systems in these environments. Course offering dependent on weather and snow pack expectations and conditions. May be repeated twice and up to 3 credits.

### **REC 1406 - Mountaineering, Level III**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk, 2nd Blk]**

**Summer [1st Blk]**

This physical activity course introduces students to the basic skills required for mountaineering, including snow climbing and descending, ice climbing, ice axe use, basic avalanche hazard identification, and technical rope systems in these environments. Course offering dependent on weather and snow pack expectations and conditions. May be repeated twice and up to 3 credits.

### **REC 1505 - Kayaking, Level I**

**Credits: (1)**

**Typically taught:**

**Spring [2nd Blk]**

A physical activity course that introduces students to the outdoor activity of kayaking. The fundamental skills of kayaking will be addressed for both beginning and recreational paddlers.

### **REC 1510 - Fishing, Level I**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to practice fishing.

### **REC 1511 - Fishing, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to practice fishing.

### **REC 1512 - Fishing, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to practice fishing.

### **REC 1520 - Hiking, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [1st Blk]**

A physical activity course that allows students to learn and develop the skills needed to safely enjoy hiking through the use of trail resources, environmental conscientiousness, planning, and conduct.

### **REC 1521 - Hiking, Level II**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to safely enjoy hiking through the use of trail resources, environmental conscientiousness, planning, and conduct.

### **REC 1522 - Hiking, Level III**

**Credits: (1)**

A physical activity course that allows students to learn and develop the skills needed to safely enjoy hiking through the use of trail resources, environmental conscientiousness, planning, and conduct.

### **REC 1527 - Rock Climbing, Level I**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, 1st Blk]**

**Spring [Full Sem, 2nd Blk]**

**Summer [1st Blk]**

A beginner level physical activity course that allows students to learn and develop the skills and knowledge needed to safely enjoy rock climbing.

### **REC 1528 - Rock Climbing, Level II**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [2nd Blk]**

**Summer [1st Blk]**

An intermediate level physical activity course that allows students to learn and develop the skills and knowledge needed to safely enjoy rock climbing.

### **REC 1529 - Rock Climbing, Level III**

**Credits: (1)**

An advanced level physical activity course that allows students to learn and develop the skills and knowledge needed to safely enjoy rock climbing.

### **REC 1610 - Skiing, Level I**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy skiing and advance through specified skill levels.(CR/NC).

### **REC 1611 - Skiing, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy skiing and advance through specified skill levels. (CR/NC).

### **REC 1612 - Skiing, Level III**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy skiing and advance through specified skill levels. (CR/NC).

### **REC 1620 - Snowboarding, Level I**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy snowboarding and advance through specified skill levels. (CR/NC).

### **REC 1621 - Snowboarding, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy snowboarding and advance through specified skill levels. (CR/NC).

### **REC 1622 - Snowboarding, Level III**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy snowboarding and advance through specified skill levels. (CR/NC).

### **REC 1630 - Cross-Country Skiing, Level I**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy cross-country skiing. (CR/NC).

### **REC 1631 - Cross-Country Skiing, Level II**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy cross-country skiing. (CR/NC).

### **REC 1632 - Cross-Country Skiing, Level III**

**Credits: (1)**

**Typically taught:**

**Spring [1st Blk]**

A physical activity course that allows students to learn and develop the skills and technique needed to safely enjoy cross-country skiing. (CR/NC).

### **REST 1540 - Survey of Respiratory Therapy**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [1st Blk, 2nd Blk]**

This course is designed to introduce allied health and other students to the profession of respiratory therapy. It includes field trips, group discussions, lecture/demonstrations and limited lab activities. Open to all students.

### **REST 1560 - Multi-Skilled Health Care Worker**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course prepares students from different health care disciplines to understand the hospital environment, patient needs, and perform basic skills of patient care. Topics include the patient's right to privacy, confidentiality, ethical, legal, and cultural issues, documentation, team building, age related concerns, medical terminology, and death and dying. Patient skills include vital signs, oxygen administration, specimen collection, personal care and cleanliness, environmental cleanliness, nutrition and diet, elimination, positioning and ambulating, patient safety and comfort, and OSHA guidelines for healthcare worker safety.

### **REST 2140 - Introduction to Basic Therapeutic Modalities Lab**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introductory Laboratory course emphasizing basic patient interaction and assessment skills. Includes infection control, the administration of medical gases, humidity and aerosol, pharmacologic agents, hyperinflation therapy, airway clearance techniques and methods of care, and artificial ventilation.

### **REST 2160 - Equipment Management Lab**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Laboratory course emphasizing patient assessment skills relating to ventilation techniques and equipment. Includes

equipment used by the respiratory care practitioner in initiating, troubleshooting, monitoring, and weaning from mechanical ventilation.

### **REST 2210 - Elementary Cardiopulmonary Anatomy and Physiology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Cardiopulmonary anatomy and physiology specifically for the entry-level respiratory care practitioner. Includes physics of respiration, oxygen and carbon dioxide transport, and control of ventilation.

### **REST 2230 - Cardiopulmonary Pathophysiology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A synopsis of medical and surgical cardiopulmonary disorders for the entry-level practitioner. Etiology, symptomatology, pathology, diagnosis, treatment, and prognosis of these disorders are presented.

### **REST 2250 - Basic Patient Assessment**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A basic orientation to patient assessment techniques used to obtain a patient medical history and physical examination. Discussion of pulmonary disease integrates assessment information with laboratory and radiographic data.

### **REST 2270 - Application of Cardiopulmonary Diagnostics**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Introduction to theory and clinical application of basic cardiopulmonary diagnostic studies, including simple spirometry, arterial and mixed venous blood gases, and electrocardiograms. Course emphasizes critical thinking skills in the application of diagnostic findings and utilizes case studies, class discussions, and extensive study guides.

### **REST 2300 - Basic Modalities in Respiratory Care I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory and clinical application of basic therapies. Course includes indications, complications, hazards, equipment needed, side effects, and assessment for medical gases, humidity, aerosols, airway clearance, hyperinflation therapy, and pharmacologic agents. Course emphasizes patient assessment and critical thinking skills. Concurrent enrollment in REST 2140.

## **REST 2310 - Basic Modalities in Respiratory Care II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory and clinical applications of airway management and artificial ventilation, including IPPB and introduction to modes of mechanical ventilation. Also includes the theory of invasive and non-invasive monitoring technology, and equipment decontamination.

## **REST 2320 - Essentials of Mechanical Ventilation**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Course provides a basic understanding of essentials for mechanical ventilation. Includes determining the need for ventilatory support, the associated physiology and how ventilatory support is initiated, maintained, monitored, and discontinued.

## **REST 2330 - Entry Level Respiratory Therapy Review**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

Course is a comprehensive review intended to prepare the student for the entry-level certification/licensure examination. The material covered is based on the examination matrix provided by the National Board for Respiratory Care (N.B.R.C.).

## **REST 2500 - Survey of Polysomnography**

**Credits: (1)**

**Typically taught:**

**Summer [1st Blk]**

Introduction to polysomnography as a profession. Course includes an overview of the polysomnogram, sleep disorders as they affect the general population, typical employment in the field, and employment opportunities. Also includes an introduction to the professional organization of sleep and requirements to become a registered polysomnographic technologist (R.PSG.T). Students taking REST 3500 are required to write a 6-10 page paper outlining the assessment of sleep disorders or neurodiagnostics. Students taking REST 2500 cannot take REST 3500 for credit. Prerequisite: Medical terminology, anatomy, and physiology or completion of respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

## **REST 2501 - Anatomy and Physiology of Sleep**

**Credits: (3)**

Introduction to the anatomy and physiology of the neurologic, cardiac, and respiratory systems during sleep. Basic anatomy and physiology of wake-sleep cycles are studied, with emphasis on changes that occur during varying stages of sleep and during common sleep disorders. Introduction to the EEG, EOG, EKG, EMG, and other polysomnography data recorders. Students taking REST 3501 are required to write a 6-10 page paper outlining physiologic components affecting quality of sleep. Students taking REST 2501 cannot take REST 3501 for credit. Prerequisite: medical terminology, anatomy, and physiology or completion of respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

## **REST 2502 - Introduction to Sleep Disorders**

**Credits: (2)**

**Typically taught:**

**Summer [1st Blk]**

Course provides an overview of the history of sleep medicine, normal sleep physiology, effects of the sleep-wake stage, sleep disorders and abnormal sleep physiology, and an introduction to polysomnography (including patient interaction, sensor and lead placements, and instrumentation). Course also introduces the fundamentals of therapeutic interventions utilized to treat sleep disorders. Students taking REST 3502 are required to write a 6-10 page paper outlining the implications for assisted ventilation to sleep disorders. Students taking REST 2502 cannot take REST 3502 for credit. Prerequisite: medical terminology, anatomy, and physiology or completion of respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

## **REST 2503 - Instrumentation and Computers in Polysomnography**

**Credits: (2)**

Course provides study of equipment, instrumentation, and recording devices utilized in polysomnography. Includes EEG waves, signal pathway and derivation of waves, impedance, sensitivity, time constants, amplifiers, filters, calibration, electrodes, artifacts (both equipment and patient-generated), computer basics, and monitoring devices. Students taking REST 3503 are required to write a 6-10 page paper outlining specific instrumentation in polysomnography assessing sleep disorders. Students taking REST 2503 cannot take REST 3503 for credit. Prerequisite: REST 2500/REST 3500 and REST 2502/REST 3502 or medical terminology, human anatomy and human physiology.

## **REST 2505 - Therapeutics of Managing Sleep Apnea**

**Credits: (2)**

Course provides current therapies and interventions for treatment of sleep apneas. Interventions include positive airway pressure therapy (nocturnal CPAP and bi-level CPAP), surgery, and dental devices. Patient compliance and outcomes of these treatments are included. Students taking REST 3505 are required to write a 6-10 page paper outlining strategies managing sleep apnea. Students taking REST 2505 cannot take REST 3505 for credit. Prerequisite: REST 2501/REST 3501 and REST 2502/REST 3502 or medical terminology, human anatomy and human physiology.

## **REST 2520 - Principles of Pharmacology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to pharmacology, including general principles, autonomic and central nervous system agents, and cardiovascular agents. Also includes drugs used in managing renal, GI tract, endocrine, and infectious or neoplastic diseases and disorders.

## **REST 2700 - Clinical Applications**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Clinical rotations in various medical settings performing skills learned and practiced in REST 2140. Recommending and modifying basic therapies will be emphasized utilizing patient assessment skills and review of patient medical history. Concurrent enrollment in REST 2140.

### **REST 2710 - Specialty Clinical Experiences**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Clinical rotations in various medical settings providing the opportunity to observe and participate in various specialty areas within the profession, including PFTs, cardiac testing, EKGs, ABGs, and longterm artificial airway care. Concurrent enrollment in REST 2160.

### **REST 2720 - Clinical Applications**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

**Summer [Full Sem]**

Clinical rotations in various medical settings performing skills learned and practiced in REST 2140. Initiating, monitoring, and weaning from mechanical ventilation will be emphasized utilizing patient assessment skills. Case studies will be used to practice critical thinking skills in the management of ICU patients. Concurrent enrollment in REST 2160.

### **REST 2800 - Independent Projects**

**Credits: (1-3)**

Projects must meet departmental and professional goals and standards and must have instructor approval prior to beginning project; enrollment by permission only. May be repeated twice for a maximum of 3 credit hours.

### **REST 2830 - Directed Readings**

**Credits: (1-2)**

**Typically taught:**

**Spring [Full Sem]**

Readings must meet departmental and professional goals and standards and must have instructor approval prior to beginning; enrollment by permission only. May be repeated twice for a maximum of 3 credit hours.

### **REST 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-3)**

Consult semester schedule for current offerings. The specific title and credit authorized will appear on student transcript. May be repeated 5 times with a maximum of 6 credit hours with different course content.

### **REST 3210 - Advanced Cardiopulmonary Anatomy and Physiology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Cardiopulmonary anatomy and physiology specifically for the therapist-level practitioner. Includes advanced anatomical considerations of the cardiac, pulmonary, and renal systems.

### **REST 3220 - Advanced Cardiopulmonary Pathophysiology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Pathophysiology and diagnosis of coronary artery disease, fungal lung disease, neoplasms, HIV, ARDS, chest injuries, shock in relation to the care of the trauma patient, and a differentiation of the intracellular and extracellular fluid compartments.

### **REST 3230 - Advanced Cardiopulmonary Technology**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Advanced diagnostic procedures and interpretive skills in cardiopulmonary function, lung dynamics, specialty gases, blood gas analysis, and metabolic assessment.

### **REST 3260 - Neonatal/Pediatric Respiratory Care**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Pediatric and neonatal respiratory care with emphasis on intensive care activities, therapeutic procedures, life support modalities and fetal, neonatal, pediatric pathophysiology.

### **REST 3270 - Adult Critical Care**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Advanced adult respiratory intensive care, including hemodynamic monitoring, ventilation/perfusion monitoring, pulmonary assessment and airway management.

### **REST 3280 - Patient Care Continuum/ Quality Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Theory and principles of pulmonary and spinal cord rehabilitation, polysomnography, discharge planning, patient education, quality management, home and self care, legal, ethical, and moral considerations of chronic and extended care.

## **REST 3500 - Survey of Polysomnography**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

Introduction to polysomnography as a profession. Course includes an overview of the polysomnogram, sleep disorders as they affect the general population, typical employment in the field, and employment opportunities. Also includes an introduction to the professional organization of sleep and requirements to become a registered polysomnographic technologist (R.PSG.T). Students taking REST 3500 are required to write a 6-10 page paper outlining the assessment of sleep disorders or neurodiagnostics. Students taking REST 2500 cannot take REST 3500 for credit. Prerequisite: Medical terminology, anatomy, and physiology or completion of respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

## **REST 3501 - Anatomy and Physiology of Sleep**

**Credits: (3)**

**Typically taught:**

**Summer [1st Blk]**

Introduction to the anatomy and physiology of the neurologic, cardiac, and respiratory systems during sleep. Basic anatomy and physiology of wake-sleep cycles are studied, with emphasis on changes that occur during varying stages of sleep and during common sleep disorders. Introduction to the EEG, EOG, EKG, EMG, and other polysomnography data recorders. Students taking REST 3501 are required to write a 6-10 page paper outlining physiologic components affecting quality of sleep. Students taking REST 2501 cannot take REST 3501 for credit. Prerequisite: medical terminology, anatomy, and physiology or completion of respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

## **REST 3502 - Introduction to Sleep Disorders**

**Credits: (2)**

Course provides an overview of the history of sleep medicine, normal sleep physiology, effects of the sleep-wake stage, sleep disorders and abnormal sleep physiology, and an introduction to polysomnography (including patient interaction, sensor and lead placements, and instrumentation). Course also introduces the fundamentals of therapeutic interventions utilized to treat sleep disorders. Students taking REST 3502 are required to write a 6-10 page paper outlining the implications for assisted ventilation to sleep disorders. Students taking REST 2505 cannot take REST 3502 for credit. Prerequisite: medical terminology, anatomy, and physiology or completion of respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

## **REST 3503 - Instrumentation and Computers in Polysomnography**

**Credits: (2)**

**Typically taught:**

**Fall [1st Blk]**

**Spring [1st Blk]**

**Summer [1st Blk]**

Course provides study of equipment, instrumentation, and recording devices utilized in polysomnography. Includes EEG waves, signal pathway and derivation of waves, impedance, sensitivity, time constants, amplifiers, filters, calibration, electrodes, artifacts (both equipment and patient-generated), computer basics, and monitoring devices. Students taking REST 3503 are required to write a 6-10 page paper outlining specific instrumentation in polysomnography assessing sleep disorders. Students taking REST 2503 cannot take REST 3503 for credit. Prerequisite: REST 2500/REST 3500 and REST 2502/REST 3502 or medical terminology, human anatomy and human physiology. May be repeated twice with a maximum of 6 credit hours.

## **REST 3504 - Laboratory Practice of Instrumentation in Polysomnography**

### **Credits: (1)**

Course provides practice and application of operating principles of equipment, instrumentation, and recording devices utilized in polysomnography. Includes EEG waves, signal pathway and derivation of waves, impedance, sensitivity, time constants, amplifiers, filters, calibration, electrodes, artifacts (both equipment and patient-generated), computer basics, and monitoring devices. Prerequisite: REST 3502/REST 2502 or medical terminology, human anatomy and human physiology Concurrent enrollment with REST 3503.

## **REST 3505 - Therapeutics of Managing Sleep Apnea**

### **Credits: (2)**

Course provides current therapies and interventions for treatment of sleep apneas. Interventions include positive airway pressure therapy (nocturnal CPAP and bi-level CPAP), surgery, and dental devices. Patient compliance and outcomes of these treatments are included. Students taking REST 3505 are required to write a 6-10 page paper outlining strategies managing sleep apnea. Students taking REST 2505 cannot take REST 3505 for credit. Prerequisite: REST 2501/REST 3501 and REST 2502/REST 3502 or medical terminology, human anatomy and human physiology. May be repeated once for a maximum of 4 credit hours.

## **REST 3506 - Advanced Technical Procedures**

### **Credits: (3)**

Course provides detailed description and discussion of specific diagnostic procedures in PSG, including multiple sleep latency tests, maintenance of wakefulness test, REM behavior disorder studies, MMPI, movement disorders, TCM, nocturnal seizure disorders, esophageal balloon procedures, and others. Prerequisite: REST 3502 and REST 3503. May be repeated once for a maximum of 6 credit hours.

## **REST 3507 - Event Recognition and Polysomnography Scoring**

### **Credits: (3)**

Course provides advanced study of sleep stages and recognition of EEG characteristics of each stage. Multi-channel recording of breathing events, leg movements, ocular movements, cardiac and oxygenation monitoring, parasomnias, and interictal and ictal epileptic events are also presented. Course will include review and scoring of 12-hour polysomnography records to determine the overall sleep score. Prerequisite: REST 3501 and REST 3502.

## **REST 3508 - Sleep Center Management**

### **Credits: (1)**

Course is designed to prepare students for sleep center management in hospitals and independent facilities. Course includes sleep laboratory requirements for accreditation, personnel requirements and training, PSG study documentation, technician manuals, quality assurance, policies and procedures, and lab protocols. REST 3500 or credentialed as C.R.T., R.R.T., or R.N.

## **REST 3509 - Cases in Sleep Medicine**

### **Credits: (2)**

#### **Typically taught:**

**Spring [1st Blk]**

**Summer [1st Blk]**

Course will include physician presentations or case studies of patients with a variety of sleep disorders. Case-based learning is applied in the context of patient presentation and initial interview and diagnostic findings, determination of appropriate sleep medicine studies, interpretation of patient findings, recommendation for patient therapy, and follow-up of patient compliance and outcome(s) of therapeutic intervention. Prerequisite: REST 3502 and REST 3505. May be repeated once for a maximum of 4 credit hours.

### **REST 3510 - Clinical Practice I in Polysomnography**

**Credits: (2)**

Introduction to the sleep laboratory and the set-up, monitoring, and therapeutic interventions associated with polysomnography. Students will be oriented to patient interviewing and selection, OSHA standards, sleep laboratory standards, and confidentiality. Competency is demonstrated in patient set-up, producing a reliable PSG, recognizing artifact, and basic therapeutic interventions for common sleep disorders. Prerequisite: REST 3502. Concurrent enrollment in REST 3503 and REST 3504. May be repeated twice for credit.

### **REST 3511 - Clinical Practice II in Polysomnography**

**Credits: (2)**

Case-based clinical applications course. Course requires competency in complete patient management (patient referral and interview, physician consult, patient study[ies], therapeutic intervention and follow-up of patient compliance). Students will develop the patient history and physical, perform the study, score the patient record, interpret the report, apply therapy, and follow-up patient compliance. Prerequisite: REST 3502 and REST 3510. Concurrent enrollment in REST 3505. May be repeated once for a maximum of 4 credit hours.

### **REST 3512 - Clinical Practice III in Polysomnography**

**Credits: (4)**

Clinical applications course providing experience in performing advanced technical procedures, including multiple sleep latency tests, maintenance of wakefulness tests, REM behavior disorders studies, MMPI, movement disorders, TCM, nocturnal seizure disorders, esophageal balloon procedures, and others. Prerequisite: REST 3502, REST 3510, and REST 3511. Concurrent enrollment in REST 3506. May be repeated once for a maximum of 8 credit hours.

### **REST 3760 - Clinical Applications of Neonatal/Pediatric Respiratory Care**

**Credits: (4)**

**Typically taught:**  
**Spring [Full Sem]**

The clinical application of pediatric and neonatal assessments as they relate to selection and use of respiratory care procedures and equipment specific for this patient population.

### **REST 3770 - Clinical Applications of Adult Critical Care**

**Credits: (4)**

**Typically taught:**  
**Fall [Full Sem]**

Adult respiratory care in the intensive care setting [shock-trauma, thoracic, burn ICUs] with emphasis on hemodynamic monitoring, ventilation/perfusion monitoring, pulmonary assessment and airway management. To be taken concurrently with REST 3270.

### **REST 3780 - Clinical Applications**

**Credits: (2)**

**Typically taught:**  
**Fall [Full Sem]**  
**Spring [Full Sem]**

Clinical experiences related to REST 3280: rehabilitation, extended care, home care agencies, polysomnography, patient assessment and planning for discharge, and quality management. To be taken concurrently with REST 3280.

### **REST 3900 - Clinical Simulation Seminar**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Problem-based clinical concepts course: comprehensive program review including written and clinical simulation examinations. Prerequisite: Enrollment in baccalaureate respiratory therapy program; CRT credential, or equivalent.

### **REST 4610 - Advanced Patient Assessment**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The advanced patient assessment project is designed to be a physician intensive, interactive experience that emphasizes an understanding of diagnostic processes involved in assessing, evaluating, and treating patients with cardiopulmonary diseases. Enrollment by permission only.

### **REST 4620 - Health Promotion**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The health promotion project addresses the growing role of the Respiratory Care Practitioner (RCP) in patient education, public education, and health promotion in general. Enrollment by permission only.

### **REST 4630 - Continuous Quality Improvement**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The continuous quality improvement project enhances an understanding of how to construct and conduct a quality improvement (quality assurance) project in the workplace. Enrollment by permission only.

### **REST 4800 - Independent Projects**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Student designed, instructor approved projects which will further develop cognitive or psychomotor skills for the baccalaureate level respiratory care practitioner. Projects must meet departmental and professional goals and standards and must have instructor approval prior to beginning project. Enrollment by permission only. May be repeated for a maximum of 6 credit hours.

### **REST 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Spring [Full Sem]**

Student designed, instructor approved readings which will further develop professional knowledge or understanding for the baccalaureate level respiratory care practitioner. Readings must meet departmental and professional goals and standards and must have instructor approval prior to beginning. Enrollment by permission only. May be repeated twice with a maximum of 3 credit hours.

### **REST 4850 - Study Abroad**

**Credits: (1-6)**

**(Variable Title)**

**Typically taught:**

**Summer [Full Sem]**

The purpose of this course is to provide opportunities for students in health professions to experience a study abroad program that is designed to explore healthcare, culture, and clinical experience. May be repeated 5 times with a maximum of 6 credit hours.

### **REST 4990 - Senior Seminar**

**Credits: (2)**

Moderated discussion and/or laboratory experiences relating to current events in health care, legislative and ethical issues, and emergent technologies in respiratory care.

### **SCM 3050 - Operations and Supply Chain Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Supply chain management is the value creation engine of every organization. The focus of this course is to acquaint students with the core elements of supply chain management: 1) customer value, 2) collaborative value creation, and 3) systems thinking. The course introduces and defines the three primary functions that compose supply chain activities- 1) purchasing, 2) operations, and 3) logistics-and shows how they need to work together to create the high-quality, low-cost, and innovative products and services that customers expect to find in today's marketplace. Important analytical tools are introduced. Prerequisite: MATH 1050.

### **SCM 3500 - Spreadsheet Modeling for Decision-Making**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Spreadsheet software enables business people to model and analyze quantitative problems in a wide variety of business contexts. This course covers spreadsheet modeling in terms of optimization models for deciding the best set of decisions

to meet constraints and performance objectives; simulation models for considering uncertainty in business operations and decisions; and other decision models and tools. Through conceptual and applied topics, this course will enhance one's problem solving and modeling capabilities as well as Excel spreadsheet skills. Prerequisite: MIS 2010, QUAN 2600.

### **SCM 3600 - Logistics & Transportation**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course incorporates readings, site visits, and case analysis to convey state-of-the-art and emerging business logistics practices. The focus of this course is on forecasting, inventory management, transportation, distribution and warehousing, with an introduction to contemporary issues in logistics such as HADR and sustainability. Development of leading-edge strategies, which promote a firm's ability to differentiate itself in terms of its supply chain performance is emphasized. Prerequisite: BSAD 2899; SCM 3050. Prerequisite/Co-requisite: SCM 3500.

### **SCM 3700 - Purchasing & Strategic Sourcing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course provides students an introduction to the supply management discipline, focusing on the development of category management skills and the purchasing process. Companies have always sourced a large percent of their COGS-- up to 50-80%. However, today's emphasis on core competencies and increased use of outsourcing makes sourcing even more strategic. Sourcing managers are responsible for managing supplier capacity and capabilities. The course emphasizes costing and relationship management tools. This course builds the foundation for students to pass the Certified Profession in Supply Management (CPSM) exam. Prerequisite: BSAD 2899; SCM 3050. Prerequisite/Co-requisite: SCM 3500.

### **SCM 4100 - Quality Management and Process Improvement**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduces principles and practices for achieving quality, customer satisfaction, and performance excellence. Emphasis on process improvement, problem-solving, variation and statistical thinking, customer and supplier relationships, service quality, employee involvement, project management, and quality management frameworks. Presents tools and methods for analyzing and improving business processes, including Six Sigma, lean, and theory of constraints. This course builds the foundation for students to pass the ASQ Certified Quality Process Analyst exam. Prerequisite: BSAD 2899; QUAN 3610; SCM 3050; or Instructor Permission.

### **SCM 4400 - Global Supply Chain Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Globalization has changed the rules of competition. Globalization also raises complex and controversial issues such as job displacement and worker exploitation. Winning companies now use worldwide resources to meet the needs of global consumers. This course introduces and is built around a scanning model. Students are expected to actively scan, using emerging information to identify inflection points and determine their strategic and tactical implication. From this

analysis, strategic objectives are renewed to guide the design of a global supply chain. Effective communication and teamwork are emphasized via the in class activities and projects. Prerequisite: BSAD 2899 and SCM 3050.

### **SCM 4500 - Supply Chain Relational Strategies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course focuses on the soft side of supply chain management, addressing both the internal (including individual) and external relationships that allow a supply chain to function. Key elements of the course include the perspective on supply chain strategic relationships, managing cultural disparities and conflict between businesses and functional units within them, and change management issues. Students will learn core processes around initial exploration and assessment of supply chain relationships, establish metrics/expectations for the relationship, craft and manage teams and work groups, and develop negotiation skills. Prerequisite: BSAD 2899; SCM 3050, SCM 3500, SCM 3600, SCM 3700; MGMT 3200 or PS 3250; should be taken concurrently with SCM 4550.

### **SCM 4550 - Strategic Supply Chain Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Supply chain management is integrative in nature, requiring a systems approach to process design and management. The goal is to co-create value across organizational boundaries. This capstone SCM course emphasizes the analytical aspects of identifying the right capabilities required to design a collaborative business model and create distinctive customer value. This analysis answers the question, "Who should be on the value-creation team?" The course is designed as a collaborative laboratory, employing extensive experiential learning and case analysis. Prerequisite: BSAD 2899; SCM 3050, SCM 3500, SCM 3600, SCM 3700; MGMT 3200 or PS 3250; should be taken concurrently with SCM 4500, but can be taken after.

### **SCM 4700 - Supply Chain Case Analysis, Logic, and Presentation**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is designed around the case analysis methodology and has the explicit goal of preparing student teams for participation in specific competitive supply chain case competitions (both regionally and nationally). Preparation time will be extensive and students must possess an advanced level of SCM mastery prior to enrollment in this class. Class meetings will be scheduled with the students throughout the semester for presentation and preparation. Please see the instructor for information on enrollment eligibility. Credit/no credit grading. Prerequisite: SCM 3050, instructor approval.

### **SCM 4800 - Independent Research**

**Credits: (1-3)**

Directed research and study on an individual basis. Prerequisite: Business Foundations; BSAD 2899; Senior Standing; Written Instructor Approval. May be repeated until a total of 4 hours credit is accumulated.

### **SCM 4850 - Supply Chain Management Study Abroad**

**Credits: (1-3)**

This course is designed for students who wish to explore supply chain management theory and practice in countries other

than the U.S. Students will study global supply chain management as offered through a partner university (or other university with department chair approval). Prerequisite: BSAD 2899. Can be repeated once up to 6 credits.

### **SCM 4860 - Supply Chain Management Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A structured professional-level field experience. The student will be counseled and supervised as he/she applies and integrates the knowledge and skills obtained through operations management and logistics courses. Prerequisite: BSAD 2899; Senior Standing; Instructor approval.

### **SOC 1010 SS/DV - Introduction to Sociology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, Full Sem Online]**

An introduction to the study of Sociology through the concepts and principles used to understand and evaluate society. It focuses on all aspects of society: culture; social interaction; institutions; group processes; deviance and social control; stratification, diversity, and inequality based on race, ethnicity, class, gender, etc.; and social stability and change.

### **SOC 1020 SS/DV - Social Problems**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, Full Sem Online]**

A study of major social problems in contemporary society, including issues of age, gender, family, race, ethnicity, wealth and poverty, politics, education, public safety, health care, substance abuse, and environment. Special emphasis is given to these issues and their consequences for today's global and diverse society.

### **SOC 2810 - Experimental Course Offerings**

**Credits: (2-3)**

May be repeated 5 times up to 6 credit hours.

### **SOC 2920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

### **SOC 3000 - Self and Society**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Sociological Social Psychology is the study of individual, group, and social behavior through analysis of the relationship between individuals and social institutions. Individuals actively create social structure while they are simultaneously shaped by it. Students will analyze how social interaction, processes, roles, and statuses are created and maintained by individuals. Students will also analyze how these same processes, roles, and statuses shape their individual behavior. Social Psychological theories and methodologies are also addressed. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3010 - Social Inequality**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

The study of social stratification and inequality in the United States and globally. The course focuses on economic class and status groups, such as gender, race and ethnicity, age, sexuality, and physical ability. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3030 - Classical Sociological Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A study of the classical tradition of sociological thought in late 18th to early 20th century Europe and 19th to early 20th century U.S. The course introduces the main theories of Comte, Martineau, Marx, Weber, Simmel, Durkheim, and others, including early theorists of gender and race. To be taken before SOC 4030. Prerequisite: SOC 1010.

### **SOC 3110 - Sociology of Family**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Analyzes family arrangements and structure, changes in such arrangements over time, and contemporary issues facing families in our ever-changing world. Emphasis is placed on variations in family experiences with regard to race, gender, social class, and sexual orientation. Family, as it relates to other social institutions such as politics, religion, and the economy, is also explored.

### **SOC 3130 - Sociology of Gender**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

This course is an examination as to how and why communities create gender categories as well how gender influences individuals' identities, behaviors, and life experiences. Students will study gender within a variety of contexts, such as the workplace, family, politics, athletics, education, health, media, and religion. Attention will also be given to sociological theories of gender, gender socialization, and the intersection of gender, race, class, and sexuality. Prerequisite: SOC 1010 or SOC 1020 or WGS 1500 or permission of instructor.

### **SOC 3250 - Deviance and Social Control**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Introduces the student to the various sociological concepts of deviance and social control. Deviance and social control are examined in their positive and negative forms. The benefits and contributions as well as the consequences and disruptions of these forms are considered in the context of the formal and informal socialization processes and the internalization of social norms. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3260 - Juvenile Delinquency**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Juvenile delinquency as a social phenomenon and its causes involving definitions, agencies of law enforcement, and the courts. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3270 - Criminology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Study of the nature, extent, causes, and treatment of crime. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3300 - Environment and Society**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An in-depth study of societal-environmental interactions including population, technology and organization impacts of human societies on the physical environment, and environmental impacts on human behavior and social organization.

### **SOC 3400 - Social Change**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

The factors which change society and how society changes, emphasizing technological innovations and its implications, social movements, and the role of individuals. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3410 - Sociology of Religion**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Examination of religion and religious activities globally from the theoretical perspectives of Sociology.

### **SOC 3420 - Sociology of Education**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Analysis of the structure and function of education as a central social institution in contemporary society.

### **SOC 3430 - Medicine and Healthcare in Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Utilizes the Sociological perspective to explore the Institution of Medicine and the Medical Healthcare Delivery System; its function as a social institution and its capability, accessibility, and the related issues of providing Healthcare. The various organizational system structures, and their economic and political dimensions are also examined. Further emphasis is placed on the various professional roles, supporting roles, and patient behaviors. Additional focus is placed upon selected international comparisons, as well as medical research, ethical considerations, and international health issues.

### **SOC 3550 - Organizations in Society**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Surveys the nature and structure of organizations in general and modern formal organizations and globalization in specific. How organizations work, function and affect contemporary society and individuals' lives and behavior. Sociological theories about modern organizations and globalization will be examined. Prerequisite: SOC 1010.

### **SOC 3600 - Social Statistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Introduction to descriptive and inferential statistical analysis techniques and the presentation of results. Prerequisite: MATH 1010 or equivalent.

### **SOC 3660 - Sociological Research**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

Examines the scientific foundations of Sociology and methods of Sociological Research. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 3840 - Cities and Urban Life**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

In-depth analysis of the urbanization, modernization, and development of the system of cities. The relationship between cities and culture, mental illness, and social problems are examined.

### **SOC 3850 - Race & Ethnicity**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Examines the social construction of race and ethnicity and the conditions of racial and ethnic groups in the United States and globally, based on statistical and ethnographic data. Includes a survey of theories of the origins, causes, and dynamics of ethnic and race relations.

### **SOC 4030 - Contemporary Sociological Theory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The works of major contemporary theorists (Mead, Parsons, Merton, Goffman, Garfinkel, etc.) and the emergence of current schools of sociological thought. Prerequisite: SOC 1010 and SOC 3030.

### **SOC 4220 - Life in a Consumer Society**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Examination of consumption, consumerism, and the increasing commercialization of contemporary life. Students study the history of consumerism and advertising; explore how consumer culture influences their own consumption choices; and analyze the relationship between consumerism and social inequality.

### **SOC 4270 - Sociology of Law**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A study of the interchange between law and society, where society creates the law, yet law regulates society. Prerequisite: SOC 1010 or SOC 1020.

### **SOC 4410 - Sociology of Globalization**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

Study of economic, political, and cultural globalization in the late 20th and early 21st century. The course examines the

history, theories and critiques of globalization, the key actors in global political-economy, the institutions and events that shape global processes, and globalization's impact on local economies, politics, culture, and the natural environment.

### **SOC 4550 - Sociology of Work**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Explores the relationship between work and social class, gender, technology, race, and ethnicity. Additionally, the nature of occupational subcultures is analyzed.

### **SOC 4810 - Experimental Course Offerings**

**Credits: (2-3)**

Individual courses offered on an experimental basis, identified by specific name and description. The specific title will appear on student's transcript along with the authorized credit. May be repeated 5 times up to 6 credit hours.

### **SOC 4830 - Readings and/or Projects**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Individual readings and/or projects for sociology majors or minors. (Maximum of 5 hours applied toward graduation, 3 of which can be applied toward the sociology major or minor.) Prerequisite: SOC 1010, senior standing, permission of instructor, approval of program coordinator. May be repeated 4 times up to 5 credit hours.

### **SOC 4890 - Internship**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Qualified juniors and seniors may apply for internships among federal, state and private agencies. Internships are anticipated to provide the student with both practical and research experiences. A student may complete up to 9 hours, but not more than 6 hours in any one type of internship. A maximum of 3 hours may be applied towards the sociological major or sociological minor. Prerequisite: SOC 1010, junior or senior status, approval of program coordinator. May be repeated 8 times up to 9 credit hours.

### **SOC 4900 - Senior Capstone Course**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A course designed to organize all of the knowledge that the student has gleaned from his/her major into an integrated whole. This course will help the student make relevant the knowledge that he/ she has learned. This will be accomplished by having the student write a senior thesis as well as attend lectures. Prerequisite: SOC 1010, SOC 3030, SOC 3600, SOC 3660, senior standing.

## **SOC 4920 - Short Courses, Workshops, Institutes, and Special Programs**

### **Credits: (1-3)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript. May be repeated 5 times up to 6 credit hours.

## **SOC 4990 - Seminar in Sociology**

### **Credits: (3)**

**Variable Title**

**Typically taught:**

**Spring [Full Sem]**

An advanced course allowing in-depth study of selected topics in Sociology. When the course number is used, it will be accompanied by a specific title with the credit authorized, which will appear on the student transcript. Prerequisite: SOC 1010 or consent of instructor. May be repeated 3 times up to 9 credit hours. (Formerly Contemporary Issues.)

## **SW 1010 SS - Introduction to Generalist Social Work**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, Online]**

**Spring [Full Sem, 1st Blk, Online]**

**Summer [Full Sem Online]**

A generalist introduction to the relationships between social systems (individuals, groups, and communities) and the social welfare networks which impact them, including the role of the social work profession. Open to all Weber State University students.

## **SW 2100 SS - Human Behavior and the Social Environment I**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 2nd Blk, Online]**

**Spring [Full Sem, 2nd Blk, Online]**

**Summer [1st Blk Online]**

This is the first course in the Human Behavior and the Social Environment sequence. It identifies the relationships between human developmental stages (from conception to death) and the problems associated with environmental interactions. Systems and theory are examined in the biological, psychological, and sociological arenas. Prerequisite: (It is recommended for Social Work Majors that SW 1010 be taken before or concurrently with SW 2100. It is also suggested that ZOOL 1020 be taken before or concurrently with SW 2100.)

## **SW 2200 SS/DV - Issues in Diversity**

### **Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

A study of diversity among individuals, groups, communities, and of issues social workers will need to understand when interfacing with diverse populations.

### **SW 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized for these elective courses will appear on the student transcript. May be repeated up to 3 times for a maximum of 4 credits.

### **SW 3000 - Death and Dying**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An in-depth study of death, death-related issues and social institutions and practices dealing with death in American society, with special emphasis on the social processes surrounding death and constructive responses to death and dying. Cross-listed with GERT 3000.

### **SW 3100 - Human Behavior and the Social Environment II**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

This second course in the Human Behavior and the Social Environment sequence is designed to present basic principles and fundamental concepts necessary for acquiring and organizing knowledge for practice with individuals, families, groups, organizations, and communities and on the interaction among these systems. Alternative paradigms on human behavior and the social environment are also explored. Prerequisite: SW 1010, SW 2100 and formal admittance to the Social Work Program.

### **SW 3120 - Aging: Adaptation and Behavior**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

An examination of the physical and psychological processes of aging. The emphasis is upon behavioral and social adaptation to these processes. Cross-listed with GERT 3120.

### **SW 3200 - Child and Family Welfare**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A historical and contemporary examination of child and family welfare issues, and social work intervention strategies. Prerequisite: SW 1010.

## **SW 3320 - Ethnicity and Older Women in the American Society**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The importance of special populations (ethnic, racial and women) as they relate to the aging process. Cross-listed with GERT 3320.

## **SW 3500 - Social Welfare & Gerontological Policy Development and Service**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The history, mission, philosophy and human service aspects used in the development of social work/gerontology as a profession will be covered. Examples of social, public and social welfare policy will be identified and studied. Knowledge of local, state, and federal legislation, professional organizations, and membership organizations will assist in review of lobby, funding and implementation practices used in meeting human service needs. Methods for the political and organizational analysis of processes and policy will be covered. Prerequisite: SW 1010 or GERT 1010. (SW/GERT 3500 must be completed before entering Field Practice.)

## **SW 3600 - Social Statistics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 1st Blk, Online]**

**Spring [Full Sem, 2nd Blk, Online]**

**Summer [Online]**

Introduction to analysis and presentation of data. Prerequisite: Meet WSU Quantitative Literacy requirement. Cross-listed with GERT 3600.

## **SW 3700 - Social Work Research**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, 2nd Blk]**

**Spring [Full Sem, 1st Blk]**

Social work research and its relationship to social work theory and practice. The class will include content on qualitative, quantitative and single system research methodologies; analysis of data, including statistical procedures; systematic evaluation of practice; analysis and evaluation of theoretical bases, research questions, methodologies, statistical procedures, and conclusions of research reports; and relevant technological advances. The course will also identify how the research curriculum contributes to the student's use of scientific knowledge for practice. Prerequisite: SW 1010. (Must be completed before entering SW 4861.) Recommended prerequisite: completion of social statistics class.

## **SW 3800 - Writing in Social Work**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to help students develop and sharpen professional writing skills and become more effective in various forms of written communication in social work and the broader social welfare delivery system. The course will

offer an in-depth overview of APA writing style guidelines and apply these, as appropriate, in the preparation of written documents common in professional practice in social and behavioral sciences. Prerequisite: University Composition (ENGL 2010 or equivalent). (It is recommended that this course be taken concurrently with SW 3700 and/or SW 4860.)

### **SW 3900 - Social Work Methods, Values, and Ethics**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

An ecological system and generalist approach to social work practice methods. Content is germane to various systems and subsystems typically implicated in problems encountered by social workers. A study of values and ethics will assist the social worker to understand the proprieties of professional practice. Prerequisite: SW 1010, SW 2100, SW 2200 and formal admittance to the social work program. (May be taken prior to or concurrently with SW 3910.)

### **SW 3910 - Social Work Practice I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

An intensive knowledge-based generalist course concentrating on micro social work intervention skills combining lecture and hands-on experiences. Prerequisite: Formal admittance to the social work program. (May be taken prior to or concurrently with SW 3900.)

### **SW 3920 - Social Work Practice II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

A generalist course directed at understanding and demonstrating the principles, concepts and techniques of planned change in mezzo settings including families and small groups. Prerequisite: SW 3910. (Must be taken concurrently with SW 3930 and SW 4860.)

### **SW 3930 - Social Work Practice III**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk]**

A generalist course designed to illustrate the principles, concepts and techniques of planned change in macro settings including institutions, organizations, and communities. (Must be taken concurrently with SW 3920 and SW 4860.)

## **SW 4140 - Perspectives on Drug Use and Substance Abuse**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course examines drug use and substance abuse across the lifespan and addresses issues such as prevention, treatment, and public policy as they affect and relate to individuals, groups, families, organizations, and communities. Course material draws on current research, theory, and practice experience.

## **SW 4150 - DSM-5**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This elective course is designed to familiarize the student with the Diagnostic Statistical Manual of Mental Disorders (DSM-5 classification). The DSM-5 provides the practitioner with a systematic diagnostic tool for practice and research.

## **SW 4220 - Societal Responses to Aging**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course is designed to cover aspects of retirement relating to job change or discontinuance. The processes, events, social roles, and phases of life will be presented. Cross-listed with GERT 4220.

## **SW 4250 - Medical Social Work**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This elective course explores the process and dynamics of the provision of social work services within the medical service delivery system.

## **SW 4500 - Interventions for Populations at Risk**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk]**

A course designed to study populations at risk with an emphasis on women and people of color. Interventions to alleviate conditions of human suffering are stressed. Prerequisite: SW 3910.

## **SW 4600 - Social Work in Special Settings**

**Credits: (2-4)**

This elective course is designed to accommodate special topic areas in Social Work practice. May be repeated once for a maximum of 4 credits.

### **SW 4650 - Retirement: Adjustment/Planning**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

This course is designed to cover aspects of retirement relating to job change or discontinuance. The processes, events, social roles, and phases of life will be presented. Cross-listed with GERT 4650.

### **SW 4800 - Projects and Research**

**Credits: (1-3)**

This elective course allows for supervised projects and primary research in various areas of social work. Limited to senior students. Prerequisite: Consent of department chair. May be repeated up to 2 times for a maximum of 3 credits.

### **SW 4810 - Experimental Courses**

**Credits: (2-3)**

This elective course is designed to accommodate new courses under an experimental format. No more than 2 experimental courses may be taken up to a maximum of 6 credits.

### **SW 4830 - Directed Readings**

**Credits: (1-3)**

This elective course is an individual reading for seniors who are majoring in social work. Permission must be obtained from the instructor. Students are required to complete a minimum of 1000 pages of selected readings per class hour requested for credit. Prerequisite: Consent of department chair. May be repeated up to 2 times for a maximum of 3 credits.

### **SW 4860 - Social Service Field Experience I**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This field practice course requires a minimum of 200 hours of supervised field service in an approved social service agency. The emphasis is to include micro, mezzo, and macro practice opportunities. Prerequisite: SW 2200, SW 3100, SW 3900 and SW 3910. Formal admittance to Field Experience required. (Must be taken concurrently with SW 3920 and SW 3930.)

### **SW 4861 - Social Service Field Experience II**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This field practice course requires a minimum of 200 hours of supervised field service in an approved social service agency. The emphasis is to include micro, mezzo, and macro practice opportunities. Prerequisite: SW 3700, SW 4860, SW/GERT 3600 (or equivalent). (To be taken concurrently with SW 4990).

## **SW 4920 - Short Courses, Workshops, Institutes, and Special Programs**

### **Credits: (2-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized for these elective courses will appear on the student transcript. May be repeated up to 2 times for a maximum of 6 credits.

## **SW 4990 - Social Work Senior Seminar**

### **Credits: (2)**

#### **Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This course requires preparation and discussion of social work concepts and topics, and information and techniques in obtaining a job and selecting a graduate school. Prerequisite: SW 4860. (Must be taken concurrently with SW 4861.)

## **SW 5010 - Professional Development: Human Development in the Social Environment**

### **Credits: (3)**

This professional development course is designed for non-social work majors who have or wish to have experience in the delivery of social services. The course explores human development in the context of the broader social environment. It identifies the relationship between human developmental stages (from conception to death) and the problems associated with environmental interactions. Systems and theory are examined in the biological, psychological, sociological, and spiritual arenas. *Credit/No credit.*

## **SW 5020 - Professional Development: Social Welfare Policy**

### **Credits: (3)**

#### **Typically taught:**

**Spring [1st Blk]**

This professional development course is designed for non-social work majors who have or wish to have experience in the delivery of social services. The history, mission, philosophy and human service aspects used in the development of social welfare policy will be covered. Examples of social, public, and social welfare policy will be identified and studied. Knowledge of local, state, and federal legislation, professional organizations, and membership organizations will assist in review of lobbying, funding, and implementation practices used in meeting human service needs. Methods for the political and organizational analysis of processes and policy will be covered. *Credit/No credit.*

## **SW 5030 - Professional Development: Social Work Ethics and Practice Methods**

### **Credits: (3)**

#### **Typically taught:**

**Spring [2nd Blk]**

This professional development course is designed for non-social work majors who have or wish to have experience in the delivery of social services. Using an ecological and generalist approach to social work practice at the individual, family, group, organization, and community levels, this course provides training in a planned client change process and considers social work roles at various levels. A significant focus of this course is the study of the application of key values and ethical principles, as defined by the National Association of Social Workers (NASW), to professional practice and the resolution of ethical dilemmas. The course also includes content on the evaluation of practice and programs. *Credit/No credit.*

### **THEA 1013 CA - Introduction to Theatre**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Online]**

An introduction to live theatre and drama and the creative heritage of theatre. Students will develop critical awareness of dramatic theory and performance practice through reading and evaluating historical and contemporary drama, and through applied creative activities. Students are expected to attend theatre performances outside of regularly scheduled class time. Note: Theatre majors are required to enroll in the face-to-face class, not the online section.

### **THEA 1023 CA - Introduction to Film**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Examination and analysis of film and film techniques. Students will develop critical awareness of film as an artistic, social, and cultural phenomenon. Students may be required to attend film screenings outside of the regularly scheduled class time. A lab fee is required for this class.

### **THEA 1030 - Voice and Movement for the Actor**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Natural resources of the human voice and body are studied as artistic resources for the performing artist. The course is designed to examine both the process and products of vocal and physical dynamics. The goal of this course is to integrate vocal and physical skills into the working process of the actor. Prerequisite: THEA 1033. (Theatre majors only).

### **THEA 1033 CA - Introduction to Acting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

This is an introductory class where students learn basic acting skills through class participation in improvisation, monologue work, and scene study. Students learn a basic understanding of theories and methodologies. Skills demonstrated in areas of body movement, diction, observation, imagination and "action". (For non-theatre majors). Note: Theatre majors are strongly encouraged to enroll in the "majors only section" offered spring semester and concurrently enroll in THEA 1713.

### **THEA 1043 CA - Introduction to American Musical Theatre**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

An introduction to American Musical Theatre, its history and creative elements. Students will develop critical awareness of the differences between traditional and musical theatre by becoming actively involved in reading, observing, and analyzing musical theatre. Note: Musical Theatre majors are strongly encouraged to enroll in this class fall semester.

### **THEA 1051 - Freshman (New Student) Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to the Theatre Arts Area devoted to the needs of incoming majors, including: faculty and staff introductions and theatrical personnel responsibilities, audition notices and practices, production and Practicum assignments, and opportunities available within the facility. Includes detailed academic advice for majors and minors, and practical methods of library research for theatre topics at WSU.

### **THEA 1053 CA - Introduction to Technical Production**

**Credits: (3)**

An introduction to the production components of live theatre in which students will develop an awareness of technical aspects including scenery, lighting, costume, properties and sound. Students are expected to attend theatre performances outside of regularly scheduled class time. This course is recommended for non-theatre majors and minors.

### **THEA 1075 - Class Voice for Musical Theatre**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course will serve as a preparation for private vocal instruction, departmental production auditions, and the application audition in the musical theatre program. While all theatre majors are welcome to take the course, it's geared specifically for incoming freshman musical theatre applicants. The instruction will cover basic singing technique and an introduction to acting a musical theatre song. May be repeated once up to 2 credit hours. Prerequisite: Must be a theatre major or minor.

### **THEA 1223 - Stage Makeup**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A practical investigation of stage makeup techniques and skills of design and application. A lab fee is required for this class.

### **THEA 1713 - Script Analysis**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introductory course focusing on plot, character, language, and thematic analysis of varied historical and modern performance texts in the context of contemporary staging practice. This course teaches play analysis from a practical perspective. For students who intend to perform, direct, and design within the collaborative production process. Co-Requisite: (Recommended) THEA 1033.

### **THEA 2012 - Stagecraft**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to stage scenery: lecture/demonstration of basic materials, shop and stage equipment, construction principles, and elementary technical drawing and design procedures.

### **THEA 2022 - Costume Fundamentals**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Introduction to stage costume: with lectures, demonstrations and projects to introduce the basic materials, fabrics, costume construction methods, costume history, and design principles and procedures for theatrical costumes.

### **THEA 2032 - Lighting Fundamentals**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course provides an introduction to stage lighting. This course includes lectures and demonstration of principles and practical use of electricity, lighting equipment, control systems, elementary technical drawing, and lighting design practice as applied to the stage.

### **THEA 2033 - Acting II**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Applies the principles learned in Acting I on a more intense level. Includes two arranged acting studio hours per week. Prerequisite: THEA 1030, THEA 1033, and by audition.

### **THEA 2203 - Costume Technology**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

A practical exploration of the research and construction techniques used to create contemporary and historic costumes for the stage. A lab fee is required for this class. Prerequisite: (Recommended) THEA 2022. Offered spring semester every odd-numbered year.

### **THEA 2330 - Dramaturgy and Criticism**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

This course will be a practical study of the role and duties of a dramaturg in a production as well as a critic reviewing a finished work. Work will include all facets of dramaturgy: historical research, script analysis, audience outreach, and

lobby displays. A completed Dramaturgy workbook for a proposed play or practical work on a department play will be the final assignment. This course may be repeated once up to to 6 credit hours.

### **THEA 2403 - Production and Stage Management**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A practical study of stage management techniques necessary for efficient theatre production. A conceptual overview of the rehearsal and performance process will be stressed, including an overview of management techniques as applied to the performing arts in general. Front of house management and company management will be studied.

### **THEA 2443 - Acting for Musical Theatre**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A practical study of acting methods unique to the discipline of musical theatre. Emphasis will be placed on the interpretation of modern musical theatre, literature through imagery, action, characterization, and analysis of the score and libretto. Prerequisite: THEA 2033 and admittance to the Musical Theatre program.

### **THEA 2580 - Computer Software for the Theatre**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

The class provides a basic introduction to several important computer programs used in theatre productions, including Vectorworks, Lightwright, Qlab, Google Sketch Up, and Photoshop.

### **THEA 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

Consult the semester class schedule for the current offering under this number. The department will determine the specific title and credit authorized.

### **THEA 3033 - Advanced Acting**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Introduces students to the techniques required to perform in various styles encountered in contemporary theatre, from Greek tragedy to the most modern forms. Includes two arranged studio hours per week. Prerequisite: THEA 2033, and by audition.

### **THEA 3070 - Voice and Movement for the Actor II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

An intermediate continuation of intensive voice and movement training for the actor, strong focus in movement and voice for extension of range and availability and for character development. Intermediate development and conditioning

of the actor's voice and body with emphasis on dialect work and stylized movement. Prerequisite: THEA 1030. This course may be repeated once up to 6 credit hours.

### **THEA 3100 - Projection Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

This course is a practical application of the tools and processes essential to conceptualizing and implementing projection design. This course also examines of the history of projection design in theatre performance leading up to current practices. Prerequisite: THEA 2580 - Computer Software for the Theatre.

### **THEA 3103 - Directing I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Theory and practical application of directing approaches. Prerequisite: THEA 1033, THEA 1013 and THEA 1713.

### **THEA 3212 - Scenic Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Scenic Design will provide a practical exploration of the methods and materials of scenic design for the theatre. The course includes instruction in visual research, conceptual sketching, rendering, hand and computer aided drafting for theatre, and requires some outside class production contribution. Prerequisite: THEA 2012. Class meets the 2nd block of spring semester every even-numbered year.

### **THEA 3222 - Lighting Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

This course will be an advanced exploration of lighting design for theater. This course is a practical exploration of the equipment, materials, and design processes of stage lighting and stage lighting design. Prerequisite: THEA 2032. May be repeated twice with a maximum of 6 credit hours.

### **THEA 3232 - Scenic Art and Painting**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Applied training in basic scene painting/scenic artist techniques for theatre. Surface preparation, priming, base painting, blending and scumbling, texture and detailing lessons are applied in producing finished demonstration flats including wall surfaces, wallpaper, bricks, rocks, wood grain and molding, marble, foliage, and copying a selected original. Prerequisite: THEA 2012.

### **THEA 3243 - Costume History**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of fashion from ancient Egypt to the 20th century in relation to stage applications and contemporary fashion. Students will gain a basic understanding of major periods in Western clothing history as well as the interrelationship of clothing and culture and a working ability to research clothing of any culture or era.

### **THEA 3303 - History and Literature of Theatre I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

A study of theatre and drama from their Pre-Ancient Greek origins through the Renaissance about 1700. The predominantly lecture format course includes significant readings in theatrical practice, historically significant plays, and basics of dramatic criticism. Additional research assignments are required.

### **THEA 3313 - History and Literature of Theatre II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A study of theatre and drama from about 1700 until the present. The predominantly lecture format course includes significant readings in theatrical practice, historically significant plays, and basics of dramatic criticism. Additional research assignments are required.

### **THEA 3323 HU - History and Literature of Contemporary Theatre**

**Credits: (3)**

A survey of theatre history and literature that will study theatre from the 20th century and into the present time. Specific attention will be given to the plays and producing organizations of minorities and other underrepresented groups.

### **THEA 3340 - Theatre Management**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

An overview of theatre management techniques that includes all the operating functions such as marketing, promotion, fundraising, accounting and personnel management. A functional business plan for a Theatre is the culminating experience of this course.

### **THEA 3343 - History & Literature of Musical Theatre**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A study of musical theatre from the origins of Opera through contemporary musical theatre. Cultural connections are emphasized through examination of book, score and performance. Prerequisite: admittance to the Musical Theatre program.

### **THEA 3350 - Marketing and Communication for the Arts**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] odd years**

This class explores the dynamics of marketing and communication across dance, music, and theatre. The emphasis is on practical application of course content to enhance students' future roles in a variety of arts related careers.

### **THEA 3443 - Scene Study for Musical Theatre**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Advanced study of acting methods unique to the discipline of musical theatre. Emphasis will be placed on the interrelationship of characters through the use of duets, group scenes, and production numbers.

Prerequisite: Admittance to the Musical Theatre program.

### **THEA 3500 - Sound Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

This class is an introduction to the art and craft of sound design for live theatre productions. This course covers a practical application of the tools and processes essential to conceptualizing and implementing the content of a sound design as well as the sound system for delivery of that content. Prerequisite: THEA 2580 - Computer Software for the Theatre.

### **THEA 3505 - Playwriting**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course will be a practical study of dramatic structure and the process of playwriting, including writing assignments with monologues, scenes, and one-act plays. Extensive writing is required. Prerequisite: ENGL 1010 and ENGL 2010.

### **THEA 3525 - ArtsBridge**

**Credits: (1-6)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

ArtsBridge is a course that provides undergraduate students with an internship and academic credit for designing and implementing a comprehensive, needs-based, integrated arts project with community organizations or area schools. ArtsBridge students will work closely with a WSU faculty mentor, community/school stakeholder, peers, and the ArtsBridge program coordinator throughout the process culminating in the development of an arts integrated project. Prerequisite: Recommendation by education supervisor in fine arts content area faculty mentor. Content methodology course(s) completed or in progress. Following faculty recommendation, please contact the ArtsBridge coordinator for an interview.

### **THEA 3991 - Junior Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

A colloquium that draws theatre students from various interests together in a mutual exploration of theatre research, production, and planning for employment opportunities and graduate study. Prerequisite: Theatre major - junior standing.

### **THEA 4002 - Special Studies in Theatre**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

Allows for the advanced study of a changing series of pertinent theatre topics. All Special Studies in Theatre courses are half-semester. The maximum time a student can repeat this class for credit is four times.

### **THEA 4002C - Special Studies in Theatre: Stage Combat**

**Credits: (2)**

Physical training in the art and craft of stage combat. Emphasis is on safe application of technique to choreograph stage fights. All Special Studies in Theatre courses are half-semester.

### **THEA 4002D - Special Studies in Theatre: Auditioning**

**Credits: (2)**

**Typically taught:**

**Fall [2nd Blk]**

A practical exploration of professional audition techniques including cold reading, prepared monologues, improvisation and portfolio preparation. Class meets the 2nd block of fall semester.

### **THEA 4002H - Special Studies in Theatre: Contemporary Topics**

**Credits: (2)**

A diversified exploration of pertinent theatre topics. May be repeated for upper division credit. All Special Studies in Theatre courses are half-semester.

### **THEA 4103 - Directing II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] odd years**

Advanced theory and application of directing approaches. Prerequisite: THEA 3103, and by audition. Offered spring semester every odd-numbered year.

### **THEA 4120 - Collaboration in the Theatre**

**Credits: (3)**

This class will help theatre students improve collaborative skills specific to production teams in the process of theatrical creation. Students will work in model production teams and explore different modes of communication and

collaboration. Prerequisite: THEA 3103 - Directing I or THEA 4203 - Costume Design or THEA 3212 - Scenic Design or THEA 3222 - Lighting Design or THEA 3500 - Sound Design and instructor approval.

### **THEA 4143 - Directing and Choreographing for Musical Theatre**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

Theory and practical application of directing and choreographing approaches as they pertain to Musical Theatre. Prerequisite: THEA 3103. Offered spring semester every even-numbered year.

### **THEA 4203 - Costume Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] even years**

A practical application of the techniques of visual communication used to create costume renderings for dramatic scripts. Prerequisite: (Recommended) THEA 2022 and THEA 3243. Offered spring semester every even-numbered year.

### **THEA 4220 - Design Seminar**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

A flexible emphasis course devoted to the design processes of theatrical production; a forum through which advanced design students may further their interests and abilities in the design process and/ or portfolio development and presentation that will change in focus from student to student. THEA 4220 Design Seminar may be used as a capstone design project with faculty approval. Prerequisite: at least one Theatre Area design course - THEA 3212 or THEA 3222 or THEA 4203, and permission of the instructor. This class provides an opportunity for in-depth theatrical design work. Since there is only one formal design class in each of the design areas (costume, lighting, and scenery) students can continue their studies in Design Seminar. The course number stays the same from semester to semester but the content; the design projects changes each time. The maximum time a student can repeat this class for credit is eight times.

### **THEA 4230 - Performance Seminar**

**Credits: (1-3)**

**Typically taught:**

**Fall [2nd Blk]**

A flexible emphasis course devoted to the acting and directing process of live theatrical production, a forum through which advanced performance students may further their interests and abilities in the acting/directing process that will change in focus from student to student. THEA 4230 Performance Seminar may be used as a capstone project with faculty approval. Prerequisite: THEA 1033, THEA 2033, THEA 3103 and permission of the instructor. May be repeated twice with a maximum of 6 credit hours.

### **THEA 4270 - Dramatic Theory and Analysis**

**Credits: (3)**

A study of dramatic theory from early Greek thinkers through contemporary theorists. The class will be based on reading primary and secondary texts and will class time will be spent on projects, activities, discussion, and lecture. Additional research assignments are required.

### **THEA 4603 - Creative Drama**

**Credits: (3)**

Theories and practices incorporating the techniques of creative drama into the elementary school curriculum. Especially recommended to students of elementary education, recreation, and social services.

### **THEA 4651 - Individual Training in Stage Voice**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Twelve individual lessons on vocal technique for the actor. A list of approved voice instructors is maintained in the department office. Students are responsible for contacting individual instructors to schedule lessons. The Musical Theatre students are required to complete Individual Training in Stage Voice a minimum of six times to complete their degree however it is not uncommon for students to take private voice lessons each semester they are enrolled. The maximum time a student can repeat this class for credit is eight times.

### **THEA 4713 - Teaching Theatre in the Secondary School**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] even years**

Application of pedagogy to teaching theatre arts in secondary schools. Requires field experiences supervised by Theatre Arts Faculty. Prerequisite: ENGL 2010 and THEA 1033.

### **THEA 4801 - College of Arts & Humanities Leadership Lecture Series**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem]**

This one-credit elective course will give arts and humanities' majors the opportunity to interact with successful guest lecturers whose undergraduate backgrounds are in the arts and humanities. Lecturers will clarify how the talents and skills associated with their degrees have contributed to their pursuit of successful careers and lives.

### **THEA 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Advanced level, independent study under the direction of faculty member. Prerequisite: Permission of supervising instructor required for credit. May be repeated 8 times with a maximum of 9 credit hours.

### **THEA 4851 - Design/Tech/Management Practicum**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Hands on learning through involvement backstage on running crews, through studio work, acting in, or involvement in "front of house" operations for Weber State Theatre productions.

To become a well-rounded theatre student, students are required to participate in the production of the departmental plays as often as their schedule allows. Since there are so many different learning opportunities in the theatre it is through Practicum that they are each exposed to the whole production process. There are 2 different Practicum course numbers, one for performance and the other for the design, technical, and management aspects of theatre. The course numbers stay the same from semester to semester but the content; the plays produced changes each time. Minimally students are required to enroll in a Practicum course 3 times to graduate, however since students are expected to be involved in the production of each play (2 per semester) then they should be completing 4 Practicums each academic year. The maximum time a student can repeat this or any combination of THEA 4851 and THEA 4861 for credit is sixteen times.

### **THEA 4852 - Design/Tech Practicum**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Hands on learning through involvement backstage on running crews, through studio work, acting in, or involvement in "front of house" operations for Weber State Theatre productions. May be repeated 9 times and receive up to 10 credits.

### **THEA 4860 - Advanced Playwriting**

**Credits: (3)**

This course will be an advanced study of dramatic structure and the process of playwriting, focusing on writing full length plays. Extensive writing is required. Prerequisite: THEA 3505 and instructor approval.

### **THEA 4861 - Performance Practicum**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Practical applied performance work to be registered for by students who are 1) cast in, 2) have a significant assistant directing responsibility, or 3) are the production director for a WSU production.

To become a well-rounded theatre student, students are required to participate in the production of the departmental plays as often as their schedule allows. Since there are so many different learning opportunities in the theatre it is through Practicum that they are each exposed to the whole production process. There are 2 different Practicum course numbers, one for performance and the other for the design, technical, and management aspects of theatre. The course numbers stay the same from semester to semester but the content; the plays produced changes each time. Minimally students are required to enroll in a Practicum course 3 times to graduate, however since students are expected to be involved in the production of each play (2 per semester) then they should be completing 4 Practicums each academic year. Prerequisite: Audition and permission of the instructor/director. The maximum time a student can repeat this or any combination of THEA 4851 and THEA 4861 for credit is sixteen times.

### **THEA 4890 - Cooperative Work Experience or Internship**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Actual participation with outside performing arts organizations in the day-to-day activity of a performing arts organization will introduce the student to the professional application of classroom skill and knowledge. Students will

arrange their own opportunities by interview or audition. A journal of their experience and a letter from a supervisor are required for credit. Possibilities include but are not limited to: Repertory Dance Theatre, Ballet West or Utah Symphony (management or tech only), Utah Shakespeare Festival, Salt Lake Acting Company, and Pioneer Theatre Company. P  
Prerequisite: ermission of supervising instructor required for credit. May be repeated twice with a maximum of 3 credit hours.

### **THEA 4900 - Senior Project**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The Senior Project is an opportunity for graduating students to generate and realize a project in an area of primary interest. Typically, the project will reflect the student's emphasis in theatre arts (e.g., Acting, Directing, Design, etc.) and will demonstrate a culmination of previous study and may be a collaborative project. Prerequisite: Faculty approval of the proposal and a faculty advisor and the student must have completed a minimum of 90 credit hours.

### **THEA 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-6)**

Consult the semester class schedule for the current offering under this number. The department will determine the specific title and credit authorized. The maximum time a student can repeat this class for credit is four times.

### **THEA 4950 - Theatre Festival Participation**

**Credits: (1)**

Attend the Kennedy Center/American College Theatre Festival Region VIII annual meeting or other national theatre conference. Students will have the opportunity to attend theatre performances brought to the festival from throughout the region, display designs, audition, act in new 10-minute plays, and participate in workshops. Students may be responsible for their own registration fees and transportation, lodging and meals. Prerequisite: Audition and Permission of Instructor. May be repeated up to 4 times for credit.

### **UNIV 1105 - Foundations of College Success**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

This course assists incoming students in making a successful transition to college. Topics include the purpose of higher education, goal setting, time management, study and test taking skills, critical thinking, stress management, academic advisement, career and major exploration, using campus resources, and understanding student responsibilities.

### **UNIV 1106 - American College Experience**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

To aid in the integration of international students into Weber State campus life, and to foster a better understanding of the relationships between campus and community; comparing the experience with home country and institution. The class combines courses and programs designed to help students transition well to the rigorous academic environment of U.S. higher education.

### **UNIV 2900 - Career Planning and Exploration**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course is a comprehensive approach to career development, planning, and selection. It assesses personal strengths and identification of job skills, and provides strategies for successfully entering the job market upon graduation. The course assists students to design their future through clarification of personal values and attitudes, identification of career interests and job skills, development of decision-making skills, and labor market information. These skills will help the student in making good career decisions and selecting a major course-of-study at Weber State University.

### **UNIV 3170 - First Year Experience Mentor Leadership Seminar**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

In this seminar course, FYE Peer Mentors are taught to effectively help Foundations of College Success (UNIV 1105 ) students in making a successful transition to college. FYE Mentor requirements are available at [www.weber.edu/fye/](http://www.weber.edu/fye/). Course enrollment limited to FYE Peer Mentors. May be repeated once for 2 more credits and additionally for zero credits.

### **WEB 1010 - Exploring Web and User Experience**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Capabilities and limitations of multimedia technology, evaluation of multimedia products, and creation of a multimedia portfolio.

### **WEB 1030 - Foundations of Computing**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem, Full Sem Online]**

This course follows the core body of knowledge specified by the ACM which provides students with a broad overview of topics they might encounter within the major areas of computing. The course is taught at an introductory level and

includes topics such as: history of computers, computer architecture, operating systems, web design and development, programming, database, software engineering, networking, and more. Cross-listed with CS 1030 and NET 1030.

### **WEB 1040 - Speedbuilding Keyboarding**

**Credits: (1)**

Intensive computerized approach for improving speed and accuracy. Keyboarding 25 wpm recommended. The grade for this course is credit/no credit.

### **WEB 1400 - Web Design and Usability**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Understand the technicalities of the World Wide Web and the Internet. Plan, design, and implement a successful web site using current web technologies. Topics covered include audience analysis, information architecture, wireframing, prototyping, responsive design, usability and accessibility, testing, and analytics.

### **WEB 1430 - Client Side Programming**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This class introduces the JavaScript language, with a focus on advanced language features and client-side web programming. Topics covered include basic syntax, object-oriented programming, higher-order functions, the DOM, and AJAX. The class will also introduce jQuery. Prerequisite: WEB 1400 and CS 1400.

### **WEB 1501 - Document Creation Competency Exam**

**Credits: (.5)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

The computer competency exam for this course is a hands-on examination verifying a student's skills at document creation. Practice materials are available on the web for studying the competencies covered on the test. The one-hour exam must be completed during the semester registered. Two repeats of the exam may be taken during the semester with an additional fee charged. The grade for the course is credit/no credit. Call (801-626-7384) or email CIL@weber.edu for more information.

### **WEB 1502 - Content, Internet Identity, and Device Management Competency Exam**

**Credits: (.5)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

The computer competency exam for this course is a hands-on examination verifying a student's skills in content, internet identity, and device management. Practice materials are available on the web for studying the competencies covered on

the test. The one-hour exam must be completed during the semester registered. Two repeats of the exam may be taken during the semester with an additional fee charged. The grade for this course is credit/no credit. Call (801-626-7384) or email CIL@weber.edu for more information.

### **WEB 1503 - Data Manipulation, Visualization, and Presentation Competency Exam**

**Credits: (.5)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

The computer competency exam for this course is a hands-on examination verifying a student's skills at data manipulation, visualization, and presentation. Practice materials are available on the web for studying the competencies covered on the test. The one-hour exam must be completed during the semester registered. Two repeats of the exam may be taken during the semester with an additional fee charged. The grade for the course is credit/no credit. Call (801-626-7384) or email CIL@weber.edu for more information.

### **WEB 1700 - Introduction to Computer Applications**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Students will use current software to produce correctly formatted research papers with an accepted academic reference format, to produce effective employment documents such as a resume and a cover letter, and to use multiple collaboration mediums to effectively share, communicate, and collaborate with their peers. Students will use current software/technology to manage content on local devices and in the cloud, to manage their web identity and presence according to e-safety, security, and privacy best practices and standards, and to manipulate multiple computing platforms to troubleshoot problems. Students will protect local devices from security threats including viruses, malware, and adware using current best practices and technologies. Students will also manipulate and analyze data using various software applications and basic programming, organize data using graphical methods such as charts and infographics, and create an effective, well-designed presentation. Keyboarding 25 wpm recommended.

### **WEB 1701 - Document Creation**

**Credits: (1)**

**Typically taught:**

**Fall [1st Blk, Online]**

**Spring [1st Blk, Online]**

**Summer [1st Blk, Online]**

Students will use current software to produce correctly formatted research papers with an accepted academic reference format such as MLA or APA. Students will use current software/technology to produce effective employment documents such as a resume and a cover letter. Students will also be able to use multiple collaboration mediums to effectively share, communicate, and collaborate with their peers. Keyboarding 25 wpm recommended.

### **WEB 1702 - Content, Internet Identity, and Device Management**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Students will use current software/technology to manage content on local devices and in the cloud. Students will manage their web identity and presence according to e-safety, security, and privacy best practices and standards. Students will manipulate multiple computing platforms and troubleshoot problems when they arise. Students will protect local devices from security threats including viruses, malware, and adware using current best practices and technologies. Keyboarding 25 wpm recommended.

### **WEB 1703 - Data Manipulation, Visualization, and Presentation**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

**Summer [Full Sem, Online]**

Students will manipulate and analyze data using various software applications and basic programming. Students will organize data using various graphical methods such as charts and infographics to appropriately convey information. Students will create an effective, well-designed presentation using current technologies. Keyboarding 25 wpm recommended.

### **WEB 2080 - Database Applications**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem Online]**

Use of database software to design and create a database, including objects such as tables, queries, reports, and forms. Use of advanced management features such as macros, switchboards, referential integrity, and compound criteria. Prerequisite: WEB 1700 or WEB 1702/WEB 1502.

### **WEB 2200 - Image Editing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Introduction to an image creation and editing program such as Adobe Photoshop. Students learn the basics of the program (workspace, selections, and layers). The steps in editing images are completed (cropping, color and tonal adjustments, retouch, noise reduction, sharpening, and exporting). Students also work creatively with layer styles, filters, layer masks, blend modes, and paint brushes. Several of the assignments will involve editing images and creating composites for the web (i.e hero image, web banner ad, Facebook cover).

### **WEB 2210 - Computer Illustrations**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

In this course you will learn the fundamentals of a vector drawing program such as Adobe Illustrator. Students become skilled using the Pen Tool and other drawing tools to create vector illustrations. Various techniques are learned for applying color, attributes, styles, and effects to illustrations. Students also create, edit, and format type to add to their illustrations. Projects will focus on web illustrations for banners, landing pages, user interface elements, social media, infographics, and other web content.

## **WEB 2220 - Digital Publishing**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Use of professional page design and layout software such as Adobe InDesign to design, create, and edit a variety of publications for print and web. Students create publications for print such as a marketing card and business flyer/brochure, as well as interactive online web documents that contain audio, video, slideshows, and HTML content. Prerequisite: WEB 1400 and WEB 2200 or permission of instructor.

## **WEB 2300 - Video Editing**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Using video editing software such as Adobe Premiere, students will combine many separate video recordings to create short digital movies. The following steps of the video production process will be completed: creating storyboards; shooting the video and recording the audio; capturing resources to the computer; importing resources into a video project; adding titles, graphics, transitions, and effects; and exporting the video to formats for the computer, television, DVDs, and the Web.

## **WEB 2350 - Client Side Web Development**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [2nd Blk Online]**

This course provides an introduction to client-side programming and Web page development. Subjects covered include responsive Web page design and dynamic Web page development. The course will explore various technologies such as HTML5, CSS3, and Javascript with an introduction to JQuery and JQuery Mobile. Cross-listed with CS 2350. Prerequisite: CS 1400 and WEB 1400.

## **WEB 2410 - Web Animation I**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

This course introduces various web technologies that aid the creation of web animations for distribution on many platforms. Students discuss technical issues affecting animation such as speed and compression. Students will explore several current tools to create animations for the web.

## **WEB 2500 - User Experience Design**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

In this course students will be introduced to the four-step user experience design process which includes user research, design, testing, and implementation. The following topics will be covered: history of user experience, user behavior, cognitive processing, personas, web analytics, content strategy, information architecture, writing for the web, user-

centered design, usability testing, and accessibility. Using current technologies and tools, students will create a basic web or mobile application. Prerequisite: WEB 1400.

### **WEB 2620 - Advanced CSS**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A deep knowledge of CSS properties and specifications is essential in client-side web development and design. This course will expand students knowledge of CSS by covering the following CSS properties: media queries, animation & transitions, transforms, grid layouts, flexbox, web fonts, shapes, variables, exclusions, and regions. Browser support, preprocessors, frameworks, and minification will also be discussed. Using these advanced CSS techniques student will design and implement a consistent user experience and the page layout of a web application. Prerequisite: WEB 1400 or CS 2350.

### **WEB 2630 - Client Side Frameworks**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course covers client-side JavaScript Frameworks and building Single Page Applications (SPA). It starts with a review of the JavaScript programming language (with emphasis on the Document Object Model (DOM) and covers various debugging techniques using the browser developer tools. An overview of Asynchronous JavaScript and XML (AJAX) is introduced before diving deeper into a popular client-side JavaScript framework - like Angular, React or VueJS. Regardless of the primary framework chosen, we will explore and compare the other frameworks as time permits. Cross-listed with CS 2630. Prerequisite: WEB 1430 or CS 2350.

### **WEB 2800 - Independent Projects and Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Independent project, student assistant, or research on an individual basis. Prerequisite: Permission of instructor. May be taken twice up to 6 credit hours.

### **WEB 2860 - Work Study**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Students can earn variable credit (depending on the number of hours performed) by working in the web and user experience career field or by serving as a teaching assistant for a WEB/UX faculty member. Either way, the student will fulfill objectives that have been pre-approved by a business/organization supervisor or faculty advisor. This lower division elective is primarily intended for WEB/UX majors currently working in entry-level (client side) positions within the career field. Junior and Senior level students, performing more complex server-side web development, should consider taking the Upper Division WEB 4860 course as an alternative. Note: The variable credit earned through

subsequent enrollments of this course will apply towards the maximum cumulative total of 4 credits allowed between WEB 2800 and WEB 2860. Prerequisite: Permission of instructor and WEB/UX program coordinator.

### **WEB 2890 - Client-Side Portfolio**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

In this project-based course students will design a web portfolio that features the work they have completed during the Web and User Experience AAS degree. Students will also create several portfolio pieces related to client-side web development. Prerequisite: WEB 2620 and WEB 2630.

### **WEB 2920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-4)**

Consult the class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

### **WEB 3000 - Advanced Word Processing**

**Credits: (1)**

**Typically taught:**

**Spring [Full Sem Online]**

Use of word processing software including sorts, tables, columns, reports, merges, graphics, and macros. Prerequisite: WEB 1700 or WEB 1701/WEB 1501.

### **WEB 3070 - Advanced Spreadsheet Applications**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem, Online]**

**Spring [Full Sem, Online]**

Use of spreadsheet software including macros, sorts, advanced formulas, graphs, and creative presentations. Prerequisite: WEB 1700 or WEB 1703/WEB 1503.

### **WEB 3090 - Digital Presentations**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem Online]**

Use of electronic slide presentation software to create slides consisting of short paragraphs, bulleted lists, graphic images, movie clips, audio clips, data charts, diagrams, and imported data from other software. Emphasis will also be placed on professional quality presentation design and animation of slide elements. Prerequisite: WEB 1700 or WEB 1701/WEB 1501 and WEB 1702/WEB 1502 and WEB 1703/WEB 1503.

## **WEB 3110 - Training the Trainer**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Real-world strategies and techniques to provide better employee training, including development of materials and methods to enhance the learning process. Prerequisite: ENGL 2010 and WEB 1700 or WEB 1701, WEB 1702, and WEB 1703, or WEB 1501, WEB 1502, and WEB 1503.

## **WEB 3200 - Dynamic Languages for Web Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

General purpose dynamic languages like Python and Ruby have become increasingly popular and well suited for the creation of full stack web applications. This course will introduce students to the syntax and programmatic idioms of both Ruby and Python. The following topics will be covered in both languages: complex data types, loops, conditionals, command line applications, and the object-oriented programming paradigm. The commonly used web frameworks of each language will be explored and used to create and deploy a full stack web application to a cloud provider. Prerequisite: CS 1400 and WEB 2630.

## **WEB 3300 - Motion Graphics**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

In this course you will use Adobe After Effects to create motion graphics and visual effects for film and video. You will learn how to create sophisticated motion graphics using animated text and objects, compositing videos and images, and adding visual effects to video. You will learn how to set keyframes on a timeline and work with transform properties, motion paths, rotoscoping masks and effects, developing a solid foundation in this increasingly popular and versatile software. Prerequisite: WEB 2200 and WEB 2300 or approval of instructor.

## **WEB 3400 - LAMP Stack Web Development**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

This course explores the Linux-Apache-MySQL-PHP, or LAMP Web development framework to build applications that solve common business problems. The course begins with an exploration of the LAMP architecture, then covers fundamentals of the PHP programming language before introducing a PHP framework like Laravel. Additional coverage focuses on database concepts and how to interact with a MySQL database. Prerequisite: WEB 3200 or NET 3200.

## **WEB 3410 - Web Animation II**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students will explore native web technologies that are useful for animation including JavaScript, SVG, the HTML canvas

element and CSS. Using these native web technologies, students will design and produce advanced multimedia projects applicable for business and industry. These projects will be produced by combining web animation, graphics, video, and text into interactive web and mobile multimedia presentations. Prerequisite: WEB 2410.

### **WEB 3430 - MEAN Stack Web Development**

**Credits: (3)**

**Typically taught:**

**Fall [full Sem]**

**Spring [Full Sem]**

MEAN is a collection of JavaScript-based technologies - MongoDB, Express.js, AngularJS, and Node.js - used to develop web applications. This course introduces development techniques that capitalize on the strengths of every layer in the MEAN stack. Prerequisite: WEB 3200.

### **WEB 3500 - User Interface Prototyping & Design**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Students will learn the elements of user interface design as it applies to front-end web and mobile app development. Students will identify best practices in user interface design. Using those best practices they will rapidly prototype an effective user interface. Prerequisite: WEB 2500 or CS 2335, WEB 1400 or CS 1400, or permission from instructor.

### **WEB 3620 - Server-Side Web Architecture**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

An introduction to server-side Web development using the most current Web server technologies. General Web development principles such as usability, reliability, maintainability and scalability will be applied to current Web development environments such as PHP, Python, Ruby and Java. Students will gain real-world experience in creating Websites for multiple Web platforms. Cross listed with CS 3620. Prerequisite: WEB 2350 and CS 2550.

### **WEB 3650 - Human-Computer Interaction**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

This course introduces the skills and concepts of Human-Computer Interaction (HCI) that enable students to design systems that effectively meet human needs. A concrete illustration of the practice of HCI, this course covers usability, user experience, and modern diverse interfaces. This course includes both theoretical and practical best practices. Cross-listed with CS 3650. Prerequisite: CS 2420 and CS 2450, or WEB 3500.

### **WEB 3700 - Web Development with .NET**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Microsoft's ASP.NET Core is a cross-platform, high-performance web framework for building full stack web applications. This course will introduce students to the syntax and programmatic idioms of ASP.NET/C#. The following topics will be covered: REST, Razor, Model Binding and Validation, Entity Framework and the MVC design pattern. Client-side

development libraries will also be discussed and integrated, so that student can build and deploy a full stack application. Prerequisite: WEB 3200.

### **WEB 4350 - Web Development Capstone**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Senior level group project capstone course covering full stack client/server web development. The project will be implemented using an advanced web framework (such as Laravel, NPM, Django, Ruby on Rails, or others). Includes implementation and concepts of an MVC web architecture, Web UI design and creation, data modeling and retrieval, input validation, security, and unit testing. Cross-listed with CS 4350. Prerequisite: CS 3620, WEB 3400 and WEB 3430.

### **WEB 4800 - Independent Research**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Directed research and study on an individual basis. Prerequisite: Permission of instructor. May be repeated up to 6 credit hours.

### **WEB 4860 - Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Students work in the web and user experience field. The student fulfills objectives that have been approved by a business/organization supervisor and a faculty advisor. Must have Senior standing or approval of instructor. Prerequisite: Permission of instructor.

### **WEB 4890 - Server-Side Portfolio**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

In this project-based course students will revise and update the web portfolio that was created in the WEB 2890 course. They will add to the portfolio work that they have completed during the Web and User Experience BS degree. Students will also create several portfolio pieces related to server-side web development. Prerequisite: WEB 3500 and WEB 3620/CS 3620.

### **WEB 4920 - Short Courses, Workshops, Institutes, and Special Programs**

**Credits: (1-4)**

Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

## **WGS 1500 SS/DV - Introduction to Women and Gender Studies**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

An introduction to the discipline of Women and Gender studies using multicultural sources based on current feminist scholarship. In this course, we will examine the diversity of women's experiences, perspectives, critiques, and theories across the categories of race, ethnicity, class, and gender.

## **WGS 2500 SS/DV - Human Rights in the World**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Human rights (HR) are a powerful idea in the modern world, but also the focus of controversy. This course will provide students with a broad foundation in human rights including the ability to analyze HR in domestic and int'l law, examine prevention and prosecution techniques, and debate current issues at home and abroad. Emphasis will be placed on women and gender studies (including LGBT issues), vulnerable populations such as refugees, and atrocity crimes.

## **WGS 2900 - Topics in Women's Studies**

**Credits: (1-3)**

Varied topics as described in the semester schedule. Topics will be drawn from issues related to women's studies. May be repeated 3 times up to 9 credits with different course content.

## **WGS 3050 - Introduction to Feminist Theories 1700 -- Present**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

An introduction to the study of feminist theories from the 18th Century to the present. Students will study historical accounts of feminism by looking at primary sources written by influential feminists, as well as theoretical treatises on different kinds of feminism, from liberal feminism, to radical feminism, socialist feminism, black feminism, multicultural or global feminism, and so on. The class will be taught using collaborative learning and will rely on class discussion and interaction, rather than traditional lecture format.

## **WGS 3090 - Gender and Communication**

**Credits: (3)**

This course is designed to help students understand the influence that communication has upon the shaping of gender and the influence that gender has in shaping communication interactions. Students become aware of, sensitive to, and more experienced in the issues, implications and skills necessary to successfully and meaningfully communicate with males and females, and about males and females, in a wide range of communication contexts. Prerequisite: Junior or Senior standing required or instructor permission. Cross listed with COMM 3090.

## **WGS 4050 - Research Methodologies**

**Credits: (2)**

**Typically taught:**

**Not currently being offered**

Designed to introduce students to a variety of approaches to research in women's studies. Students will consider some of the assumptions which underlie research methodologies which may limit our knowledge about women as research subjects and as researchers themselves. Prerequisite: WGS 3050 (or equivalent coursework) or permission of instructor.

### **WGS 4060 - Research Project**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Directed research project including literature survey and completion of study in area of student's choosing, guided by faculty mentor(s) from Women's Studies program (and, where appropriate, student's major department.) Prerequisite: WGS 4050 (or equivalent coursework) and permission of instructor.

### **WGS 4150 - Research Methodologies**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

Designed to introduce students to a variety of approaches to research in women and gender studies. Students will consider some of the assumptions which underlie research methodologies which may limit our knowledge about women as research subjects and as researchers themselves. Prerequisite: WGS 3050 (or equivalent coursework) or permission of instructor.

### **WGS 4250 - Community-Based Research/Internship**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

The purpose of this research/internship is to provide students with community experiences related to issues of women and gender. Students in this practicum will apply knowledge skills learned throughout their course of study in either the Women and Gender Studies minor or BIS. For this research/internship students will be required to check in with their course faculty supervisor weekly during the semester. Prerequisite: WGS 4050.

### **WGS 4830 - Directed Readings**

**Credits: (1-3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Directed individual readings in the general area of women's studies. Specific topic selected in consultation with instructor; amount of material to be read determined at discretion of instructor, based on level of topic and degree of difficulty of reading and consistent with any existing university and departmental guidelines. Prerequisite: WGS 1500 (or equivalent coursework) and permission of instructor. May be repeated 5 times up to 6 credit hours.

### **WGS 4860 - Internship in Women's Studies**

**Credits: (1-2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Opportunity for service learning with campus/community organizations involved with women's issues, applying principles learned in women's studies coursework to bring about beneficial social change. Prerequisite: completion of WGS 4050 (or equivalent coursework) and permission of the instructor. This course may be repeated once up to two credits toward the minor. When taken to fulfill a program requirement, students must register for 2 credit hours.

### **WGS 4900 - Topics in Women's Studies**

**Credits: (1-3)**

Varied topics as described in the semester schedule. Topics will be drawn from issues related to women's studies. This course may be taken 3 times up to 9 credits with different course content.

### **WGS 4990 - Senior Seminar**

**Credits: (2)**

**Typically taught:**

**Spring [Full Sem]**

Capstone course including discussion and synthesis of major issues in women's studies. Students will discuss specific projects (completed or in progress) related to their career goals; these projects may have an academic or service orientation. Prerequisite: completion of the women's studies core (or equivalent) courses and permission of the instructor.

### **WSU 1450 CA/HU - Perspectives in Creative Arts and Humanities**

**Credits: (3-5)**

### **WSU 1460 SS/CA - Perspectives in Social Science and Creative Arts**

**Credits: (3-5)**

### **WSU 1470 PS/CA - Perspectives in Physical Sciences and Creative Arts**

**Credits: (3-5)**

### **WSU 1480 CA/LS - Perspectives in Creative Arts and Life Sciences**

**Credits: (3-5)**

### **WSU 1560 SS/HU - Perspectives in Social Science and Humanities**

**Credits: (3-5)**

**WSU 1570 PS/HU - Perspectives in Physical Sciences and Humanities**

**Credits: (3-5)**

**WSU 1580 HU/LS - Perspectives in Humanities and Life Sciences**

**Credits: (3-5)**

**WSU 1670 SS/PS - Perspectives in Social Science and Physical Science**

**Credits: (3-5)**

**WSU 1680 SS/LS - Perspectives in Social Science and Life Science**

**Credits: (3-5)**

**WSU 1780 PS/LS - Perspectives in Physical Sciences and Life Sciences**

**Credits: (3-5)**

**WSU 2120 EN/AI - Perspectives in Composition and American Institutions**

**Credits: (3-5)**

**WSU 2130 EN/QL - Perspectives in Composition and Quantitative Literacy**

**Credits: (3-5)**

**WSU 2140 EN/CA - Perspectives in Composition and Creative Arts**

**Credits: (3-5)**

**WSU 2150 EN/HU - Perspectives in Composition and Humanities**

**Credits: (3-5)**

**WSU 2160 EN/SS - Perspectives in Composition and Social Sciences**

**Credits: (3-5)**

**WSU 2170 EN/PS - Perspectives in Composition and Physical Sciences**

**Credits: (3-5)**

**WSU 2180 EN/LS - Perspectives in Composition and Life Sciences**

**Credits: (3-5)**

**WSU 2230 AI/QL - Perspectives in American Institutions and Quantitative Literacy**

**Credits: (3-5)**

**WSU 2240 AI/CA - Perspectives in American Institutions and Creative Arts**

**Credits: (3-5)**

**WSU 2250 AI/HU - Perspectives in American Institutions and Humanities**

**Credits: (3-5)**

**WSU 2260 AI/SS - Perspectives in American Institutions and Social Science**

**Credits: (3-5)**

**WSU 2270 AI/PS - Perspectives in American Institutions and Physical Sciences**

**Credits: (3-5)**

**WSU 2280 AI/LS - Perspectives in American Institutions and Life Sciences**

**Credits: (3-5)**

**WSU 2340 QL/CA - Perspectives in Quantitative Literacy and Creative Arts**

**Credits: (3-5)**

**WSU 2350 QL/HU - Perspectives in Quantitative Literacy and Humanities**

**Credits: (3-5)**

**WSU 2360 QL/LS - Perspectives in Quantitative Literacy and Life Sciences**

**Credits: (3-5)**

**WSU 2370 QL/PS - Perspectives in Quantitative Literacy and Physical Sciences**

**Credits: (3-5)**

**WSU 2380 QL/SS - Perspectives in Quantitative Literacy and Social Science**

**Credits: (3-5)**

**WSU 2420 PS/SS - Perspectives in Social Science and Physical Sciences**

**Credits: (3-5)**

### **ZOOL 1010 LS - Animal Biology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

A non-major's introduction to cell biology, genetics, evolution, ecology, and animal diversity with emphasis on diversity of animal architecture and life strategies in relation to the diverse environments of Earth. The overriding theme is the process of evolution, its basis, and its implications for all animals, including humans. Three lecture/discussion hours a week.

### **ZOOL 1020 LS - Human Biology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

Survey course for non-science majors. Course content includes basic structure and function of the human body, homeostasis, heredity, human evolution, and ecology. Implications for personal health, bioethical and environmental issues and the impact of each of these on society will be examined. Three lecture/discussion hours a week.

### **ZOOL 1030 LS - The Nature of Sex**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

This course will present an overview of sexual reproduction in animals, including humans. It provides evolutionary, ecological, and behavioral perspectives on sex. Topics cover the value of sex for generating variation among individuals, breeding patterns in nonsocial and social species, mating systems such as monogamy and polygamy, and reproductive behavior. The relevance of this material to human reproduction is addressed.

### **ZOOL 1110 LS - Principles of Zoology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A science major's introduction to the study of cell biology, genetics, inheritance, evolution, and ecology. The nature and practice of science is also emphasized and basic skills in data collection, analysis, and presentation are introduced. Three hours of lecture and two hours of lab per week.

### **ZOOL 1370 LS - Principles of Life Science**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A survey course recommended for elementary education majors. Course content includes cells, cell chemistry, genetics,

plant and animal anatomy, plant and animal classification, physiology, immune systems, evolution, and ecology. Unifying concepts of all living things will be emphasized. Two lecture hours and one 3-hour lab a week. Cross-listed with BTNY 1370 and MICR 1370.

### **ZOOL 1990 - Zoology Orientation**

**Credits: (1)**

**Typically taught:**

**Not currently offered**

This seminar consists of faculty, staff, and professional presentations which will inform students of potential research opportunities in the department and career possibilities in the discipline. One hour a week. This course should be taken concurrently with ZOOL 1110 or ZOOL 2220.

### **ZOOL 2100 - Human Anatomy**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Systematic study of the organs of the human body with cadaver-based laboratory. ZOOL 1020 or HTHS 1101 strongly recommended prior to enrollment. First semester students are discouraged from registering. Three hours of lecture and one 2-hour lab per week.

### **ZOOL 2200 LS - Human Physiology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [1st Blk, 2nd Blk, Full Sem Online]**

Functional consideration of the human body. Recommended for all curricula for which a basic understanding of body functions is required. Three lecture hours and one 2-hour lab a week.

### **ZOOL 2220 - Diversity of Animals**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A major's introduction the diversity and evolution of vertebrate and invertebrate animals. Three hours of lecture and one 2-hour lab a week. Prerequisite: ZOOL 1110 or permission of instructor.

### **ZOOL 2800 - History of Life Sciences**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Examination of the ways in which interaction among personalities, instrumentation, and ideas shape the development of biology - past, present, and future. Three lecture hours a week.

## **ZOOL 2900 - Topics in Zoology**

**Credits: (1-4)**

**Typically taught:**

**Not currently offered**

Variable topics related to zoology as announced in the class schedule; may include medical entomology, biostatistics, primatology, etc., and may be taught with a laboratory section. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor. May be repeated 3 times with a maximum of 4 credit hours.

## **ZOOL 2920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Not currently offered**

Consult class schedule for offerings under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: vary and are determined by instructor. May be repeated 5 times with a maximum of 6 credit hours.

## **ZOOL 3099 - Teaching the Human Anatomy Laboratory**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is to introduce students to human dissection and the teaching of human cadaver anatomy. In so doing, we will (1) provide a uniform laboratory experience for Zoology 2100 (Human Anatomy), (2) teach the students what and how to teach the human anatomy laboratories, (3) provide the students with the opportunity to teach their peers thus providing experience at public speaking, and, (4) reinforce the knowledge base of the students (the power of knowing something by teaching something). Prerequisite: Successful completion of ZOOL 2100 with a grade of B+ or higher; completion of interview process, and instructor approval.

## **ZOOL 3100 - Advanced Human Anatomy**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The purpose of this course is to further expose and train students in human cadaver dissection and the teaching of human cadaver anatomy. In so doing, we will (1) provide a uniform laboratory experience for Zoology 2100 (Human Anatomy), (2) teach these advanced students what and how to mentor their junior colleagues in teaching the human anatomy laboratories, (3) provide these advanced students with the opportunity to teach both the 2100 students and other student instructors, thus further improving their public speaking, (4) place these advanced students in a more senior leadership position among their lab instructor peers, and (5) further reinforce the knowledge base of the students (the power of knowing something by teaching something).

Due to the complex and pedagogical nature, this course can be taken up to 4 times. Each semester, the focus of the lecture portion of this course will vary from: histological anatomy, developmental anatomy, evolution and pathological/clinically-relevant anatomy. In addition, the prosection assignments each repeated semester will increase in complexity, difficulty and leadership demand. The student instructor experience is maximized by their ability to repeat this unique course by allowing them to capitalize on and improve their past efforts in both the teaching environment and prosection assignment. Prerequisite: Successful completion of ZOOL 2100 with a grade of B+ or higher, successful completion of ZOOL 3099, completion of interview process, and instructor approval.

### **ZOOL 3200 - Cell Biology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

The study of the molecular composition of cells, their evolutionary origins, structural organization, functional variation, and regulatory control. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and either the CHEM 1110 and CHEM 1120 series or the CHEM 1210 and CHEM 1220 series, or approval of instructor.

### **ZOOL 3300 - Genetics**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Principles and concepts of genetics with with an emphasis on animals, including humans. Includes classical genetics, molecular genetics, cytogenetics, and population genetics. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and MATH 1050 (or equivalent), or approval of instructor.

### **ZOOL 3340 - Information Resources in the Life Sciences**

**Credits: (2)**

**Typically taught:**

**Not currently offered**

A practical introduction to the literature and information resources of the life sciences. Students will expand their research skills and be able to develop effective research strategies to find and synthesize information available in academic libraries. Two lecture hours a week. Prerequisite: ENGL 2010. Cross listed in Botany, Library Sciences and Microbiology.

### **ZOOL 3450 - Ecology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Study of the relationships of organisms and their environment. Three lecture hours and one 3-hour lab or field trip a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor. Writing intensive course.

### **ZOOL 3470 - Zoogeography**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem] alternate**

The study of factors controlling the distribution of animals with emphasis on the vertebrates. Three lecture hours a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 3500 - Conservation Biology**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem] alternate**

The study of how biological principles and concepts are used in conservation. Major emphasis on the preservation and management of biodiversity. Connections between biological and societal issues are explored. Three lecture hours a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 3570 - Foundations of Science Education**

**Credits: (3)**

**Typically taught:**

**Spring [Full Sem]**

A thorough investigation of research in science learning and curricular standards at the state and national levels. Foundations of the philosophy of science and scientific inquiry as applicable to science teaching at the secondary level. This course serves as a foundation to a preservice science teacher's education coursework. Cross-listed with BTNY, CHEM, GEO, MICR, & PHYS 3570.

### **ZOOL 3600 - Comparative Physiology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

A comparative and evolutionary approach to the study of the way animals function in a variety of environments. Three lecture hours and one three-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 3720 - Evolution**

**Credits: (3)**

**Typically taught:**

**Fall [Fall Sem, Full Sem Online]**

**Spring [Full Sem, Full Sem Online]**

**Summer [Full Sem Online]**

The patterns and processes involved in changes in natural populations. Three lecture hours a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 3730 - Population Biology**

**Credits: (3)**

**Typically taught:**

**Not currently offered**

Principles of genetics and ecology at the population level. Three lecture hours a week. Prerequisite: ZOOL 1110, ZOOL 2220, and ZOOL 3300, or approval of instructor.

### **ZOOL 4050 - Comparative Vertebrate Anatomy**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] alternate**

Dissection-based, in-depth comparative study of vertebrate functional anatomy. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110 and ZOO 2220, or approval of instructor.

### **ZOO 4100 - Vertebrate Embryology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] alternate**

A study of the principles and processes of embryological development in animals. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110 and ZOO 2220, or approval of instructor.

### **ZOO 4120 - Histology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

Microanatomical study of the structure and function of vertebrate tissues and organs, with an emphasis on human systems. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110, ZOO 2220, either ZOO 2100 or ZOO 4050, or approval of instructor.

### **ZOO 4210 - Advanced Human Physiology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] alternate**

A study of vertebrate physiological processes with human emphasis, focusing on cardiovascular, digestive, and neuromuscular systems. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110, ZOO 2220, and ZOO 2200, or approval of instructor; a minimum of one year of (preferably Organic) Chemistry.

### **ZOO 4220 - Endocrinology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

The comparative study of the function of the cells, tissues, glands, and organs that secrete hormones and how these hormones affect the physiology of organisms, from invertebrates to vertebrates. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110 and ZOO 2220, and either ZOO 2200 or ZOO 3600, or approval of instructor.

### **ZOO 4250 - Radiation Biology**

**Credits: (4)**

**Typically taught:**

**Not currently offered**

The study of harmful effects of radiation and practical applications of radioactive tracer techniques to biological problems. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110, ZOO 2220, and beginning courses in chemistry and physics, or approval of instructor.

### **ZOOL 4300 - Molecular Genetics**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

A laboratory-based investigation of the molecular properties of the genetic material, including its structure, expression and evolution. Emphasis on applications and the genetics of humans. Three lecture/lab hours and one 3-hour lab per week. Prerequisite: ZOOL 3300, CHEM 1210 and CHEM 1220, or approval of instructor.

### **ZOOL 4350 - Animal Behavior**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

Principles and concepts of animal behavior emphasizing evolution of behavior, and the role of behavior in adaptations of animals to their environment. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 4470 - Wildlife Ecology and Management**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

Principles of wildlife ecology and the techniques of wildlife population analysis and manipulation. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110, ZOOL 2220, and ZOOL 3450, or approval of instructor. Writing intensive course.

### **ZOOL 4480 - Aquatic Ecology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

Study of the physical, chemical, and biological interactions of freshwater and marine ecosystems. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110, ZOOL 2220, and ZOOL 3450, or approval of instructor. Writing intensive course.

### **ZOOL 4490 - Marine Ecology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem]**

Study of physical, chemical, and biological interactions within and among marine ecosystems. Prerequisite: ZOOL 1110 and ZOOL 2220 or approval of instructor. ZOOL 3450 recommended.

### **ZOOL 4500 - Parasitology**

**Credits: (4)**

**Typically taught:**

**Not currently offered**

Survey of representative external and internal parasites of humans, domestic animals, and wildlife. Emphasis is on their

ecology and epidemiology. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 4570 - Secondary School Science Teaching Methods**

**Credits: (3)**

**Typically taught:**

**Fall [Full Sem]**

Acquaintance and practice with various teaching and assessment methods. Development of science curricula including lesson and unit plans. It is recommended that this course be completed immediately before student teaching.

Prerequisite: Admission to the Teacher Education Program. Cross-listed with BTNY, CHEM, GEO, MICR, & PHYS 4570.

### **ZOOL 4600 - Protozoology**

**Credits: (4)**

**Typically taught:**

**Not currently offered**

Structure, function and evolutionary relationships of unicellular organisms. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 4640 - Entomology**

**Credits: (4)**

**Typically taught:**

**Summer [Full Sem]**

Classification and biology of insects as well as their economic importance. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 4650 - Ichthyology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] alternate**

Classification, ecology and biology of fishes and emphasis on local freshwater forms. Field trips required. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 4660 - Herpetology**

**Credits: (4)**

**Typically taught:**

**Fall [Full Sem] alternate**

Structure, function and evolutionary relationships of amphibians and reptiles. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor.

### **ZOOL 4670 - Ornithology**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] alternate**

The biology of birds including form, function, behavior and ecology. Lab emphasizes identification of Utah species. Three

lecture hours and one 3-hour lab or a field trip each week. Prerequisite: ZOO 1110 and ZOO 2220, or approval of instructor.

### **ZOO 4680 - Mammalogy**

**Credits: (4)**

**Typically taught:**

**Spring [Full Sem] alternate**

An introduction to the mammals with special reference to species found in Utah. Three lecture hours and one 3-hour lab a week. Prerequisite: ZOO 1110 and ZOO 2220, or approval of instructor.

### **ZOO 4800 - Problems in Zoology**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Directed individual research in zoology guided by faculty member. Prerequisite: ZOO 1110 and ZOO 2220, and approval of instructor. No more than 4 hours of ZOO 4800 may count toward the major. May be repeated up to 12 credit hours for university credit.

### **ZOO 4820 - Human Physiology Laboratory Teaching Assistant**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [1st Blk, 2nd Blk]**

Students selected to be Laboratory Teaching Assistants (Lab TA) will help in the Human Physiology laboratories. Under the teacher's supervision, they (two teaching assistants per class) will address classes of up to 30 students. They will help set up the instruments, present background information, run the experiments and assess the student's learning by giving and grading short quizzes. Prerequisite: Students will need to have taken the Human Physiology class (ZOO 2200) and laboratory (ZOO 2200L) and obtained a minimum of a B+ in the class. Students will need to apply for one of the positions. Approval to be a Laboratory Teaching Assistant will be at the teacher's discretion.

### **ZOO 4830 - Readings in Zoology**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Directed individual readings in the general area of zoology. Specific topic selected in consultation with faculty member. Prerequisite: ZOO 1110 and ZOO 2220, and approval of instructor. ZOO 4830 and ZOO 4890 do not count toward the major but may count toward the upper division credit requirements for the Bachelor of Science degree. May be repeated up to 12 credit hours for university credit.

### **ZOOL 4890 - Cooperative Work Experience**

**Credits: (1-4)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

Academic credit for employment in career area related to zoology guided by specific written contract design by student, employer, and Zoology Department Chair. Open to all students; requires approval by Department Chair. May be repeated up to 12 credit hours for university credit.

### **ZOOL 4900 - Topics in Zoology**

**Credits: (1-4)**

**Typically taught:**

**Check with Department**

Variable topics related to zoology as announced in the class schedule; may include medical entomology, biostatistics, primatology, etc., and may be taught with a laboratory section. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor. May be repeated up to 12 credit hours for university credit.

### **ZOOL 4920 - Short Courses, Workshops, Institutes and Special Programs**

**Credits: (1-4)**

**Typically taught:**

**Not currently offered**

Consult class schedule for offerings under this number. The specific title and credit authorized will appear on the student transcript. Prerequisite: vary and are determined by instructor. May be repeated for a maximum of 4 credit hours.

### **ZOOL 4950 - Field Zoology**

**Credits: (1-3)**

**Typically taught:**

**Check with Department**

Study conducted on an extended, supervised field trip. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor. May be repeated for a maximum of 3 credit hours.

### **ZOOL 4970 - Thesis**

**Credits: (2)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

**Summer [Full Sem]**

An extended, individual research project planned and completed under faculty supervision. Normally, two semesters of research (ZOOL 4800) will precede registration for this course. Culmination is an oral and written report of results obtained, with the final draft of the latter being due two weeks prior to the beginning of final exam week. Instructor approval required. Prerequisite: thesis committee approved research proposal, advanced class standing, and ZOOL 1110 and ZOOL 2220.

### **ZOOL 4980 - Research Design**

**Credits: (2)**

**Typically taught:**

**Not currently offered**

A basic course in the design and analysis of scientific experiments. Two lecture hours a week. Prerequisite: minimum of two upper division Zoology courses.

### **ZOOL 4990 - Seminar**

**Credits: (1)**

**Typically taught:**

**Fall [Full Sem]**

**Spring [Full Sem]**

Presentations and discussion concerning a specific topic in zoology. One semester required. May be repeated to fulfill one additional credit of Zoology elective hours if taken beyond the one credit hour required for the major. One hour a week. Prerequisite: ZOOL 1110 and ZOOL 2220, or approval of instructor. May be repeated up to 3 credit hours for university credit.

### **ZOOL 5030G - Zoology for Teachers**

**Credits: (1-4)**

**Typically taught:**

**Not currently offered**

Science content course for teachers in the MEd Science Emphasis Program. To register, select another Zoology course and develop a contract detailing additional work required for graduating credit. Course may be repeated 3 times up to 4 credits. Contract must be approved by instructor, Department Chair, and Director of the Master of Education Program.