

UNDERGRADUATE CATALOG

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Idaho State
UNIVERSITY

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About ISU

Idaho State University has served the citizens of the state since 1901, when the institution was first established as the Academy of Idaho. Renamed the Idaho Technical Institute in 1915 and reorganized as the Southern Branch of the University of Idaho in 1927, it was established as Idaho State College in 1947. By action of the 37th Idaho Legislature, the institution became Idaho State University on July 1, 1963. The University's Strategic Plan is online at <https://isu.edu/strategicplan/>.

Certificate programs of varying lengths, an Associate of Applied Science degree and a Bachelor of Applied Science degree are included in the curricula of the College of Technology. Bachelors' and masters' degrees in a variety of fields are awarded by the College of Arts and Letters, College of Business, College of Education, College of Science and Engineering, Kasiska Division of Health Sciences, and the Graduate School. Terminal degrees offered at Idaho State University include Master of Fine Arts, Doctor of Philosophy, Doctor of Arts, Doctor of Education, Doctor of Nursing Practice, and Doctor of Pharmacy.

Mission

Idaho State University is a public research-based institution that advances scholarly and creative endeavors through academic instruction, and the creation of new knowledge, research, and artistic works. Idaho State University provides leadership in the health professions, biomedical, and pharmaceutical sciences, as well as serving the region and the nation through its environmental science and energy programs. The University provides access to its regional and rural communities through delivery of preeminent technical, undergraduate, graduate, professional, and interdisciplinary education. The University fosters a culture of diversity, and engages and impacts its communities through partnerships and services.

Core Themes:

Core Theme One: Learning and Discovery

Idaho State University fosters student learning and discovery through teaching, research, and creative activity. ISU delivers high quality academic programs at all levels: technical certificates; undergraduate, graduate, and professional degrees; and postgraduate professional training.

Core Theme Two: Access and Opportunity

Idaho State University provides diverse pathways to retention and graduation through educational preparation, academic and co-curricular opportunities, and extensive student support services.

Core Theme Three: Leadership in the Health Sciences

Idaho State University provides statewide leadership in the health sciences. With the academic support of its colleges and the division, the University offers a broad spectrum of degree levels and provides residency training in the health professions. New knowledge is created through biomedical, translational, clinical, rural, and health services research. Teaching, research, practice, and community partnerships provide interprofessional education and excellence in patient care. University clinics provide an environment for learning, inquiry and comprehensive health care service to the community.

Core Theme Four: Community Engagement and Impact

As an integral component of the community, Idaho State University develops partnerships and affiliations through the exchange of knowledge, resources, research, and expertise. Through a diverse university staff, faculty, and student

body, ISU provides cultural, social, economic, and other opportunities to enrich the lives of citizens.

Regional Accreditation

Idaho State University is accredited by the Northwest Commission on Colleges and Universities.

Accreditation of an institution of higher education by the Northwest Commission on Colleges and Universities indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one that has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the Northwest Commission on Colleges and Universities is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution's accredited status by the Northwest Commission on Colleges and Universities should be directed to the administrative staff of the institution. Individuals may also contact:

Northwest Commission on Colleges and Universities
8060 165th
Avenue N.E., Suite 100
Redmond, WA 98052 (425) 558-4224 <http://www.nwccu.org>

Specialized Accreditation

In addition, many undergraduate and graduate programs maintain specialized professional accreditation. The Office of Institutional Research maintains the most up-to-date list of ISU programs with specialized accreditation. As of the printing of this catalog the following programs have received specialized accreditation by the following organizations:

College of Arts and Letters

- American Psychological Association (APA)
- Council on Social Work Education (CSWE)
- National Association of Schools of Music (NASM)
- National Association of Schools of Theatre (NAST)

College of Business

- Association to Advance Collegiate Schools of Business (AACSB)

College of Education

- Commission on Accreditation of Athletic Training Education (CAATE)
- Council for the Accreditation of Educator Preparation (CAEP)
- National Association of School Psychologists (NASP)

Kasiska Division of Health Sciences

- Accreditation Council for Education in Nutrition and Dietetics (ACEND)
- Accreditation Council for Occupational Therapy Education (ACOTE)
- Accreditation Council for Pharmacy Education (ACPE)

- Accreditation Review Commission on Education for the Physician Assistant (ARC-PA)
- American Speech-Language-Hearing Association (ASHA)
- Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- Commission on Accreditation in Physical Therapy Education (CAPTE)
- Commission on Collegiate Nursing Education (CCNE)
- Commission on Dental Accreditation (CODA)
- Council for Accreditation of Counseling & Related Educational Programs (CACREP)
- Council for the Accreditation of Educator Preparation (CAEP)
- Council on Education for Public Health (CEPH)
- Joint Review Committee on Education in Radiologic Technology (JRCERT)
- National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

College of Science and Engineering

- Accreditation Board for Engineering and Technology (ABET)

College of Technology

- Accreditation Commission for Education in Nursing (ACEN)
- Association of Technology, Management, and Applied Engineering (ATMAE)
- Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
- Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- Commission on Massage Therapy Accreditation (COMTA)
- Commission on Accreditation for Respiratory Care (CoARC)
- Engineering Technology Accreditation Commission of ABET
- National Association of Early Childhood Programs (NAEYC)

Program Accreditation Requirements

Current and future programs not offered by the College of Business may include no more than 1/4 of ISU minimum credit requirements for a baccalaureate degree from classes offered by the College of Business.

Student Outcomes Assessment

All undergraduate academic programs at four year public institutions in Idaho are required to assess student learning in the major and general education programs. Similar requirements for assessment also appear in the new guidelines issued by the Northwest Commission on Colleges and Universities, which provides Idaho State University's institution-wide accreditation.

Idaho State University's goal is to encourage students to develop abilities and acquire knowledge that will be of lasting benefit in their personal and professional lives. To ensure that this goal is met, a program of student outcomes assessment has been implemented to improve the teaching and learning process.

Comprehensive information that includes student performance and student opinion is vital to the success of the assessment program. To provide this information, undergraduate students in the academic division may be asked to participate in a variety of assessment activities that may include formal and informal examinations, interviews, surveys, and follow-up studies after graduation.

Federal Family Education Rights and Privacy Act of 1974

Idaho State University, in compliance with the Family Educational Rights and Privacy Act (FERPA), is responsible for maintaining educational records and monitoring the release of information of those records. Staff and faculty with access to student educational records are legally responsible for protecting the privacy of the student by using information only for legitimate educational reasons to instruct, advise, or otherwise assist students.

Only those records defined as "directory information" may be released without the express written permission of the student. Directory information includes the student's name, address listings, telephone listings, e-mail addresses, full-time/part-time status, class level, college, major field of study, degree types and dates, enrollment status, club and athletic participation records, and dates of attendance including whether or not currently enrolled. No other information contained in a student's educational records may be released to any outside party without the written consent of the student.

A student may restrict release of directory information through the BengalWeb (<https://bengalweb.isu.edu>) by accessing the "Update Addresses and Phones" screen under the Academic Tools tab. This restriction will apply to the student's address and telephone listings only. All other directory listings will continue to be available for release.

Additional FERPA information may be found on the web at: <https://isu.edu/registrar/student-resources/ferpa/>.

Policy Statements

Catalogs, bulletins, course and fee schedules, etc., are not to be considered as binding contracts between Idaho State University and students. The university and its divisions reserve the right at any time, without advance notice, to: (a) withdraw or cancel classes, courses, and programs; (b) change fee schedules; (c) change the academic calendar; (d) change admissions and registration requirements; (e) change the regulations and requirements governing instruction in, and graduation from, the university and its various divisions; and (f) change any other regulations affecting students. Changes shall go into force whenever the proper authorities so determine, and shall apply not only to prospective students but also to those who are matriculated at the time in the university. When economic and other conditions permit, the university tries to provide advance notice of such changes.

Students enrolled in a program that is closed, relocated, or discontinued should be given notice of the closure as soon as is practical. Notwithstanding any other provision of State Board of Education policy, university policy, or university catalog statements to the contrary, arrangements should be made for enrolled students to complete affected programs in a timely manner and with minimum interruptions. When there is a similar program within the institutions governed by the Board, an affected student will be provided with information on transferring to that program, although admission to any such program is contingent upon the availability of a position and the student's meeting any applicable admission requirements. If there is no similar program available within the institutions governed by the Board or the student is not able to gain admission to a similar program, the university will make reasonable efforts to place the student in a related or comparable program within the university. If none is available, the university will make reasonable efforts to assist the student in locating to another program at the university or elsewhere for which he or she is qualified.

Idaho State University is committed to providing a positive education for all students. The university has a legal and ethical responsibility to ensure that all students and employees can learn and work in an environment free of harassment and discrimination. It is the ISU policy to prohibit and eliminate discrimination

on the basis of race, color, national origin, religion, sex, age, or disability. This policy applies to all programs, services, and facilities, and includes, but is not limited to, recruitment, applications, admissions, and access to programs, services, and employment. For additional information and specific contact information, see: <https://www.isu.edu/aaction/>.

Colleges and Departments

College of Arts and Letters (<https://www.isu.edu/cal>)

Fine Arts and Humanities

- Art (<http://www.isu.edu/art>)
- Communication, Media, and Persuasion (<http://www.isu.edu/cmp>)
- English and Philosophy (<http://www.isu.edu/english>)
- Global Studies and Languages (<https://www.isu.edu/globalstudies>)

School of Performing Arts (<https://www.isu.edu/sopa>)

- Music (<https://www.isu.edu/music>)
- Theatre (<https://www.isu.edu/theatre>)
- Dance (<https://www.isu.edu/dance>)

Social and Behavioral Sciences

- Anthropology (<https://www.isu.edu/anthropology>)
- History (<http://www.isu.edu/history>)
- Military Science (ROTC) (<https://www.isu.edu/armyrotc>)
- Political Science (<http://www.isu.edu/polsci>)
- Psychology (<https://www.isu.edu/psych>)
- Sociology, Social Work, and Criminology (<https://www.isu.edu/sociology>)

College of Business (<https://www.isu.edu/cob>)

- Accounting (<https://www.isu.edu/accounting>)
- Business Informatics (<https://www.isu.edu/business-informatics>)
- Economics (<https://www.isu.edu/economics>)
- Finance (<https://www.isu.edu/finance>)
- Healthcare Administration (<https://www.isu.edu/hca>)
- Management (<https://www.isu.edu/management>)
- Marketing (<https://www.isu.edu/marketing>)
- MBA (<https://www.isu.edu/mba>)
- MAcc (<https://www.isu.edu/macc>)
- MTax (<https://www.isu.edu/mtax>)
- Information Assurance (<https://www.niatec.iri.isu.edu/ViewPage.aspx?id=0>)

College of Education (<https://www.isu.edu/education>)

- Teaching and Educational Studies (TES) (<https://www.isu.edu/tes>)
- Organizational Learning and Performance (OLP) (<https://www.isu.edu/olp>)
- School Psychology and Educational Leadership (SPEL) (<https://www.isu.edu/spel>)
- Sport Science & Physical Education (SSPE) (<https://www.isu.edu/sspe>)

College of Health Professions (<https://www.isu.edu/chp>)

- Community and Public Health (<https://www.isu.edu/publichealth>)
- Counseling (<https://www.isu.edu/counseling>)

- Dental Hygiene (<http://www.isu.edu/dentalhy>)
- Dental Sciences (<https://www.isu.edu/dentalsciences>)
- Dietetics (<https://www.isu.edu/dietetics>)
- Emergency Services (<https://www.isu.edu/esd>)
- Family Medicine (<https://www.isu.edu/fmed>)
- Medical Laboratory Science (<https://www.isu.edu/mls>)
- Physician Assistant (<https://www.isu.edu/pa>)
- Radiographic Science (<http://www.isu.edu/radsci>)

College of Nursing (<https://www.isu.edu/nursing>)

- Traditional Bachelor of Science in Nursing (<https://www.isu.edu/nursing/programs/traditional-bachelor-of-science-in-nursing>)
- Accelerated Bachelor of Science In Nursing (<https://www.isu.edu/nursing/programs/accelerated-bachelor-of-science-in-nursing>)
- Baccalaureate Completion Program for RNs (<https://www.isu.edu/nursing/programs/baccalaureate-completion-program-for-rns>)
- Doctor of Philosophy (Ph.D.) in Nursing (<https://www.isu.edu/nursing/programs/doctor-of-philosophy-phd-in-nursing>)
- Doctor of Nursing Practice (DNP) (<https://www.isu.edu/nursing/programs/doctor-of-nursing-practice-dnp>)
- Master of Science (M.S.) in Nursing (<https://www.isu.edu/nursing/programs/master-of-science-ms-in-nursing>)

College of Pharmacy (<https://isu.edu/pharmacy>)

- Doctor of Pharmacy (<https://isu.edu/pharmacy/prospective-students/pharmd-program>)
- Graduate Studies (<https://isu.edu/pharmacy/prospective-students/graduate-program>)
- Clinical Psychopharmacology (<https://isu.edu/pharmacy/prospective-students/clinical-psychopharmacology-program>)

College of Rehabilitation and Communication Sciences (<https://www.isu.edu/rehabsciences>)

- Communication Sciences and Disorders (<http://www.isu.edu/csd>)
- Physical Therapy (<https://www.isu.edu/pt>)
- Occupational Therapy (<http://www.isu.edu/ot>)

College of Science and Engineering (<https://www.isu.edu/cse>)

- Biological Sciences (<http://www.isu.edu/bios>)
- Chemistry (<http://www.isu.edu/chem>)
- Computer Science (<https://www.isu.edu/cs>)
- Geosciences (<http://www.isu.edu/geology>)
- Mathematics and Statistics (<http://www.isu.edu/math>)
- Civil and Environmental Engineering (<https://www.isu.edu/cee>)
- Electrical Engineering (<http://isu.edu/ee>)
- Health Physics (<https://www.isu.edu/hp>)

- Mechanical Engineering (<https://www.isu.edu/me>)
- Nuclear Engineering (<http://isu.edu/ne>)
- Physics (<http://isu.edu/physics>)
- Unmanned Aerial Systems (<https://www.isu.edu/unmannedaerialsystems>)
- Veteran to Nurse (<https://www.isu.edu/veterantonurse>)
- Welding (<https://www.isu.edu/welding>)

College of Technology (<https://www.isu.edu/tech>)

- Advanced Automation & Manufacturing
- Aircraft Maintenance Technology (<https://www.isu.edu/aircraft>)
- Associate Degree Registered Nurse (<https://www.isu.edu/registerednurse>)
- Automotive Collision Repair & Refinishing Technology (<https://www.isu.edu/autocollision>)
- Automotive Technology (<https://www.isu.edu/autotechnology>)
- Bachelor of Science Health Science (<https://www.isu.edu/bshs>)
- Bachelor of Applied Science (<https://www.isu.edu/bas>)
- Business Technology (<https://www.isu.edu/businesstechnology>)
- Civil Engineering Technology (<https://www.isu.edu/civilengineering>)
- Computer Aided Design Drafting Technology (<https://www.isu.edu/cadd>)
- Computerized Machining Technology (<https://www.isu.edu/computerizedmachining>)
- Cosmetology (<https://www.isu.edu/cosmetology>)
- Diesel/On-Site Power Generation Technology (<https://www.isu.edu/dieseltechnology>)
- Early Childhood Care and Education (<https://www.isu.edu/earlychildcareeducation>)
- Electrical Engineering Technology (<https://www.isu.edu/electricalengineeringtechnology>)
- Health Information Technology (<https://www.isu.edu/healthinformation>)
- Industrial Cybersecurity Technology (<https://www.isu.edu/cyberphysicalsecurity>)
- Information Technology Systems (<https://www.isu.edu/informationtechnologysystems>)
- Instrumentation Engineering Technology (<https://www.isu.edu/instrumentationengineering>)
- Law Enforcement (<https://www.isu.edu/lawenforcement>)
- Massage Therapy (<https://www.isu.edu/massagetherapy>)
- Mechanical Engineering Technology (<https://www.isu.edu/mechanicalengineeringtechnology>)
- Medical Assisting (<https://www.isu.edu/medicalassisting>)
- Medical Coding (<https://www.isu.edu/medicalcoding>)
- Nuclear Operations Technology (<https://www.isu.edu/nuclearoperations>)
- Occupational Therapy Assistant (<https://www.isu.edu/ota>)
- Paralegal Studies (<https://www.isu.edu/paralegalstudies>)
- Pharmacy Technology (<https://www.isu.edu/pharmacytechnology>)
- Physical Therapist Assistant (<https://www.isu.edu/pta>)
- Practical Nursing (<https://www.isu.edu/practicalnursing>)
- Respiratory Therapy (<https://www.isu.edu/respiratorytherapy>)
- Robotics and Communications Systems Engineering Technology (<https://www.isu.edu/robotics>)
- START (<https://www.isu.edu/start>) (Successful Transitions And Retention)
- Surveying and Geomatics Engineering Technology (<https://www.isu.edu/geomatics>)
- Technical General Education (<https://www.isu.edu/technicalgeneraleducation>)

Expenses

Fees for the academic year are set by the Idaho State Board of Education after the publication of the catalog. Fee information can be found here:

<https://www.isu.edu/cost/>

Refund Policy

The Refund Policy applies to all for-credit classes regardless of location of the class.

This policy does not include the advance deposits required by the College of Technology and by the Dental Hygiene, Physical Therapy, and Physician Assistant programs in the College of Health Professions.

All refunds are paid by University check or E-refund.

Basis for Refunds

Refunds are calculated and authorized by the office of Finance and Administration. The official drop/withdrawal date is the actual date the drop or withdrawal form is received by an authorized University office or accepted in the University's automated system.

Refunds of registration charges for full-time fees, part-time credit hour fees, non-resident tuition, and professional program fees are calculated on the applicable refund percentage applied to the dropped credits, using the first official day of the University semester or session as the starting date. Examples of refund calculations can be found at the following link <https://www.isu.edu/media/libraries/finance-and-business-affairs/student-services/RefundExamples.pdf>.

Federal financial aid provisions may require funds to be returned to federal programs in excess of your ISU refund. In such situations, you will be billed for the excess remitted by the University in your behalf.

The official starting and ending dates of all classes are those designated by the University registrar.

Fall and Spring Semesters Refund Periods and Percentages

- **100% Refund:** Classes cancelled by the University.
- **100% Refund:** 16-week classes for the first (10) ten days of University classes and 8-week classes for the first (5) five days of University classes.
- **50% Refund:** 16-week classes for the next (5) five days (third week) of University classes and 8-week classes for the next (5) days (second week) of University classes.
- **No Refund:** 16-week classes dropped after the third week of classes. 8-week classes dropped after the tenth day of classes.
- **For classes, short courses, continuing education classes, and workshops with nonstandard starting and ending dates,** refund requests are reviewed on an exception basis. The official starting and ending dates are those designated by the University registrar.

Summer Session Refund Periods and Percentages

- **100% Refund:** Classes cancelled by the University.
- **100% Refund:** Full term session (May - Aug) for the first 10 days of University classes and 4, 6, 8 week sessions dropped in the first 5 days of University classes.

- **100% Refund:** Workshop classes dropped before the 1st day of the workshop.
- **50% Refund:** Full term session (May - Aug) for the next 5 days (3rd week) of University classes and 4, 6, 8 week classes dropped in the next 5 days (2nd week).

Non-refundable Fee Charges/Payments

The following fees or charges are not refundable:

1. Reduced fee charges authorized by the State Board of Education. Examples include faculty/staff/spouse reduced fees, senior citizen reduced fees, education contract classes, etc.
2. Late processing charges.
3. Amounts paid to satisfy unpaid fees/charges from previous terms.
4. Amounts paid for student malpractice insurance.

Refunds for Exceptional Circumstances

In specific cases, as listed below, a full refund of the registration tuition and fees, credit hour fee, non-resident tuition and professional fees will be granted following official withdrawal from the University, provided the withdrawal process is completed during the first half of the semester or session (i.e., first eight weeks of a semester, first four weeks of a session). Proper documentation must be presented and approval granted by the offices of Student Affairs and Finance and Administration before the refund will be processed.

1. Induction of the student into the U.S. Armed Forces.
2. Incapacitating illness or injury which prevents the student from returning to school for the remainder of the term. A medical withdrawal must be processed through the University Student Health Center.
3. Death of a student.
4. Death of spouse, child, parent, or legal guardian of student.

To request an exception to the refund policy other than those listed above click here (<https://www.isu.edu/financeadmin/student-financial-services/refunds/refund-appeals>).

Deductions from Refunds

The University reserves the right to deduct amounts owed the University from refunds. Refunds of fees for the term, less any outstanding fee loan balances for the term, are applied to the financial aid awarded to the student in the priority sequence shown below:

1. Amounts required by law to be returned to Federal Financial Aid programs
2. Third party agency payments of actual tuition and fees
3. University authorizations specifically for the payment of tuition and fees (i.e., graduate teaching assistant, athletics, etc.)
4. Federal aid programs (see Financial Aid Handbook for priority)
5. Miscellaneous outstanding balances due the University
6. University loan programs
7. University and donor scholarship programs

Any balance is refunded to the student.

Payment of Refunds to the Student

A University check for the refund balance is mailed to the home address of the student, along with an itemized disclosure of any deductions. Refund checks are processed four weeks after the beginning of the term, or a minimum of three weeks after the date of payment if the student paid the charges.

Contact Us

For information regarding the refund policy please contact:

- **FINANCE & BUSINESS AFFAIRS** - (208) 282-2790

Financial Aid and Scholarships

A significant number of students receive financial assistance at Idaho State University. Students frequently receive assistance from a variety of funding sources; e.g., a Pell Grant, plus an Idaho State University Freshman Scholarship, plus College Work Study.

Financial assistance programs are administered by various departments at Idaho State University. The following list identifies the types of financial funding available and the university office to contact for further information. If writing to any of the departments listed below, use the address format here:

Office Name
921 S 8th Ave Stop 8xxx
Pocatello, ID 83209-8xxx

On-Campus Sources of Financial Assistance

Employment

Federal College Work Study

Off-campus (part-time or temporary)

On-campus (part-time)

Career Center, Stop 8108
Room 429, Museum Building
(208) 282-2380

Also see University departments

International Students (off-campus)

International Programs, Stop 8038
Room 426, Museum Building
(208) 282-4320

International Students (on-campus)

Various University offices

Graduate Assistantships, Fellowships

Academic Department chairpersons
Graduate School, Stop 8075
Room 401, Museum Building
(208) 282-2150

Grants

Athletic Grants-in-Aid

Director of Athletics, Stop 8173
Holt Arena
(208) 282-2771

Federal Pell Grants and Federal Supplemental Educational Opportunity Grants (SEOG)

Financial Aid Office, Stop 8077
Room 337, Museum Building
Phone: (208) 282-2756 / Email: finaidem@isu.edu

Loans

Federal Direct Student Loans (Subsidized and Unsubsidized), Parent Loans for Undergraduate Students (PLUS), and Graduate PLUS Loans

Financial Aid Office, Stop 8077
Room 337, Museum Building
Phone: (208) 282-2756 / Email: finaidem@isu.edu

Non-Resident Tuition Waivers

Athletics

Director of Athletics, Stop 8173
Holt Arena
(208) 282-2771

Academic Merit

International Students

Western Undergraduate Exchange (WUE)

Scholarship Office, Stop 8391
Room 327, Museum Building
Phone: (208) 282-3315 / Email: scholar@isu.edu

Graduate Students

Graduate School, Stop 8075
Room 401, Museum Building
(208) 282-2150

Need-Based

Financial Aid Office, Stop 8077
Room 337, Museum Building
Phone: (208) 282-2756 / Email: finaidem@isu.edu

Scholarships

Undergraduate and Graduate Students

Scholarship Office, Stop 8391
Room 327, Museum Building
Phone: (208) 282-3315 / Email: scholar@isu.edu

Athletics

Director of Athletics, Stop 8173
Holt Arena
(208) 282-2771

Related to Major Course of Study

- Visit ISU's Bengal Online Scholarship System (BOSS) (https://isu.academicworks.com/users/sign_in)
- Department Chair

Service Awards

ASISU (Senate, Student Activities Board, Bengal)

ASISU Office, Stop 8125
Pond Student Union, Room 215
(208) 282-3435

Related to Talent (e.g., music, drama)

Academic Department chairpersons

Military Education Benefits

Military Education Benefits Chief, Stop 8196
Room 319, Museum Building
(208) 282-2676

Federal and State Financial Aid

Financial aid is help for meeting college costs – both direct educational costs (such as tuition, fees, books, etc.) and personal living expenses (such as food, housing, and transportation). Each year, thousands of Idaho State University students rely upon student assistance funds to meet some of their college costs. The majority of these students rely upon federal and state student assistance programs which are managed by the Financial Aid Office.

Major financial aid programs available through the Financial Aid Office include the following:

- Federal College Work Study
- Need-based Nonresident Waivers
- Federal Supplemental Educational Opportunity Grants
- Federal Pell Grants
- Federal Student Loans
- Federal Parent Loans for Undergraduate Students
- Federal Graduate PLUS Loans

The application form used for financial aid programs through the Financial Aid Office is the **Free Application for Federal Student Aid (FAFSA)** (<https://fafsa.gov>). The FAFSA will cover one full academic year – fall, spring and summer semesters. Students are encouraged to submit their FAFSA as early as possible, preferably using the IRS Data Retrieval Tool to import tax information into the FAFSA. The FAFSA is available starting October 1st each year for the next academic year.

Financial Aid counselors are available to discuss students' concerns related to financial aid. The Financial Aid staff will describe the types of financial assistance available and will assist students with the application process. Financial Aid counselors can also assist students in determining the cost of attendance, how to manage money while in school, and how to identify alternative sources of funding.

Students must meet certain conditions in order to receive federal financial assistance through Idaho State University. The general conditions include the following: completion of a FAFSA to determine eligibility; admission and enrollment as a degree-seeking student in an aid-eligible major; meet Financial Aid satisfactory academic progress requirements; be a U.S. citizen or an eligible non-citizen; and not owe a refund or repayment on Title IV loans. Loans and work study require at least half-time enrollment. In some cases, students enrolled in fewer than six credits may qualify for Pell grants.

To obtain more specific information, contact the Financial Aid Office, Room 337, Museum Building, 921 S 8th Ave, Stop 8077, Pocatello, ID 83209-8077, (208) 282-2756 or visit the Financial Aid Office website at <https://www.isu.edu/financialaid/>.

Scholarships

The majority of scholarships at Idaho State University are administered by the Director of Scholarships with the assistance of various University committees. Scholarship funds are made possible through student fees, the generosity of individuals, and contributions of business, labor, fraternal, and professional organizations.

Scholarship criteria vary (i.e., minimum grade point average, financial need, major, etc). Scholarship announcements, including eligibility and application deadline information, are regularly distributed by the Scholarship Office through the **Bengal Online Scholarship System (BOSS)** (https://isu.academicworks.com/users/sign_in). We also encourage students to talk to their major department for other departmental scholarships not listed in BOSS,

and check local and national organizations. The Scholarship Office bulletin boards located in the Hypostyle of the Pond Student Union Building often has additional information, tips on writing essays, etc. Please visit the Scholarship Office website (<https://www.isu.edu/scholarships>) for a link to apply through the BOSS system as well as receive other valuable information. Individuals seeking information on scholarships should contact the Scholarship Office:

Scholarship Office
Room 327, Museum Building
921 South 8th Avenue, Stop 8391
Pocatello, ID 83209-8391
Phone: (208) 282-3315 / Email: scholar@isu.edu
<https://www.isu.edu/scholarships>

Non-resident tuition waivers (NRTW's) are available to qualified students who demonstrate financial need and to students who have demonstrated strong academic ability. Contact the Financial Aid office to inquire about need-based NRTWs. Contact the Scholarships Office to inquire about academic-based NRTW's.

Scholarships for New Incoming (First Time) Freshman or Transfer Students

The **Application for Admission to ISU** (<https://www.isu.edu/apply>) is the application for recruitment scholarships, Non-Resident Tuition Waivers, Western Undergraduate Exchange (WUE) for new incoming (first time) freshmen and/or transfer students. February 15th is the deadline for Fall entry and November 1st is the deadline for Spring entry for both new incoming freshman and transfer students. Scholarships are awarded based on academic merit and/or ACT/SAT scores. International Students are considered for the International Non-Resident Tuition Waiver. Deadline for International Students is May 1 for Fall Entry and November 1 for Spring Entry. We strongly encourage ALL ISU students to visit the Bengal Online Scholarship System (BOSS) for additional scholarship opportunities.

Student Services

Associated Students of Idaho State University (ASISU)

Pond Student Union, Room 215
921 S 8th Ave Stop 8125
Pocatello ID 83209-8125
(208) 282-3435
<http://www.isu.edu/asisu/>

The Associated Students of Idaho State University (ASISU) is the representative body for students, and functions through the leadership of the student body president, vice president, Student Senate, and numerous committees. These officers are responsible for all activities sponsored by the Associated Students. Applications for committee membership are available in the ASISU Administrative Offices. Detailed information on student government can be found on the ASISU webpage.

Bengal Bridge

Rendezvous Building, 3rd Floor, Room 323
(208) 282-3662
921 S. 8th Ave. Stop 8010
Pocatello, ID 83209-8010
<https://www.isu.edu/bengalbridge>
bengalbridge@isu.edu

Bengal Bridge is a summer program for recently graduated high school students who want to get a head start on college. Bengal Bridge provides a low-cost, supportive environment focused on helping students transition to college. Bengal Bridge students earn 9-10 credits toward their degrees, connect with numerous resources across the campus community, and receive individualized coaching to help them achieve their goals.

Bengal Pharmacy

Located at:
990 S 8th Avenue
(208)-282-3407
Mailing address:
921 S 8th Ave Stop 8311
Pocatello, ID 83209-8311
<http://www.isu.edu/healthcenter/pharmacy/>

The Bengal Pharmacy provides low-cost prescription drugs as well as over-the-counter medications at reduced costs. Students may wish to transfer prescriptions from their hometown to the Bengal Pharmacy while they are attending Idaho State University. All Idaho State University students, both full and part-time, and their spouses may use the Bengal Pharmacy. ISU Faculty, Staff, and members of the general public are also invited to utilize the Bengal Pharmacy.

Campus Recreation Department

Campus Recreation Office
Recreation Center, Room 360
921 S 8th Ave Stop 8105
(208) 282-3516
<http://www.isu.edu/camprec>

The Campus Recreation Department is located in the Student Recreation Center south of Reed Gymnasium. The Recreation Center offers 100,000 sq. ft. of recreation space and houses indoor courts for tennis, racquetball, and basketball,

and weights, fitness machines, cardio areas, and an indoor track. It also houses one of the Northwest's largest indoor climbing walls. An addition completed in the summer of 2010 offers an airy and open environment for a daily workout. Intramural programs are also available through Campus Recreation with as many as 30 activities to choose from. Please contact Campus Recreation at 282-4854 or on the web at <http://www.isu.edu/camprec>.

Career Center

Museum Building, Room 418
921 S. 8th Ave. Stop 8108
(208) 282-2380
<http://www.isu.edu/career>

From your freshman year to graduation, the Career Center services will help you achieve your educational and career goals.

The Career Center offers a Career & Life Planning course (COUN 1150) as well as career counseling utilizing career assessments to learn more about majors and occupations that fit your personality, skills, values, and interests. We also assist with job search strategies, resume & cover letters, and practice interviews. We have an online system called Handshake, which will help you search for jobs, internships, and learn about upcoming career fairs and other career-related events. The Career Path Internship (CPI) program gives you opportunities to receive paid internship experiences focused on your major and career goals. Throughout the year we hold many career fairs to help students find a broad range of jobs and internships. Call us to see how we can help meet your career needs.

Central Academic Advising

JoAnn Hertz, Director of Advising

Museum Building, Room 307
921 S 8th Ave Stop 8054
Pocatello ID 83209-8054
(208) 282-3277
<https://www.isu.edu/advising/>
advinfo@isu.edu

Central Academic Advising (CAA) serves as a general advising resource and support service for ISU students, faculty, and professional advisors, and as a specialized resource for academic sophomore level students (26 to 57 credits), first semester transfer students, and pre-Social Work majors. Undecided students and students on Academic Warning and Academic Probation also receive support from CAA. CAA advisors provide a wide array of assistance including academic success strategy development, campus resource information and referral, campus policy and procedure clarification, course schedule development, and degree planning guidance.

Online Advising Sessions

Completion of an online advising session is required before course registration is allowed for academic degree seeking freshmen and transfer students prior to their first semester of attendance at Idaho State University. Former ISU students (who have not enrolled in classes for the past 8 semesters, including summers) also complete the online advising session before course registration. The Fundamentals of Advising and Registration (FAR) session (for freshmen and former students) and the Transfer (TFAR) session (for transfer students) can be found on the Central Academic Advising website: <https://www.isu.edu/advising/oas/>.

Online advising sessions at Idaho State University are not intended to replace direct advising with faculty or professional advisors.

C. W. HOG

Pond Student Union, First Floor
(entrance below east end of Hypostyle)
921 S 8th Ave Stop 8128
(208) 282-3912
<http://www.isu.edu/outdoor/cwhog.shtml>

The Cooperative Wilderness Handicapped Outdoor Group, C. W. HOG, is located on the lower level of the Pond Student Union. The mission of Cooperative Wilderness Handicapped Outdoor Group, located on the Pocatello campus of Idaho State University, is to provide challenging outdoor adventures for individuals with disabilities, focusing on enhancing attitudes, increasing positive self-image, and supporting people of all ages and abilities. C.W. HOG also runs the new Universal Challenge Course, which is an amazing tool for team-building and fun. Academic credit may be granted for participation in activities that include weight training, seated aerobics, swimming, snow skiing, challenge course facilitation, water skiing, and whitewater rafting.

Craft Shop

Pond Student Union, First Floor
921 S 8th Ave Stop 8119
(208) 282-3281
<https://www.isu.edu/union/student-life/craft-shop/>

The Craft Shop was established for students and the community to learn the necessary skills to create their own crafts and projects. Work centers include a wood shop and clay studio. Other areas are set up for sewing, mat cutting for photos, and paper cutting. There are experienced staff and student employees available to familiarize you with the facilities in the Craft Shop, and assist you in the design and creation of your next craft project. Non-credit classes are offered each semester in a variety of arts and crafts.

Disability Services

Karina Mason Rorris, Director
Rendezvous Building, Room 125
921 S 8th Avenue Stop 8121
Pocatello ID 83209-8121
(208)282-3599
<http://www.isu.edu/ada4isu/disabilityservices@isu.edu>

The Disability Services office is located on the first floor of the Rendezvous building. Students with documented disabilities who qualify for accommodations provided by the university must self-identify to the Center in order to have accommodations provided. Information about accommodations is available in the

Center and may be picked up in person or requested by telephone by calling (208) 282-3599.

Americans with Disabilities Compliance Statement

The Americans with Disabilities Act (ADA) provides protection from discrimination for individuals on the basis of disability. The ADA extends civil rights protection to people with disabilities who utilize the services provided by Idaho State University. Idaho State University makes significant efforts to comply with requests for "reasonable accommodations" to a course, policy, or physical barrier and will not discriminate in the recruitment, admission, or treatment of students or employees with disabilities. In order for Disabilities Services to arrange accommodations, we request notification as early as possible so that your needs may be met. In addition to complying with the civil rights protections of the ADA, we provide access to assistive technology, a social community, and workshops on how to be a more successful student.

Diversity Resource Center

Rendezvous Building, Room 129
921 S 8th Ave Stop 8036
Pocatello ID 83209-8036
(208) 282-3142
<http://www.isu.edu/drc/>

The Center's primary focus is to provide diversity programming for ISU students and the larger community. We also assist ethnic and international students and organizations to maximize their impact on campus. We seek both to enhance their experience at Idaho State University and to assist them in contributing to campus diversity and cultural competency. In addition, the Center develops, promotes, and delivers campus-wide activities directed toward enhancing multicultural understanding.

Programs: Faculty and staff lead brown bag discussions on diversity related topics, presented in the Diversity Resource Center bi-weekly during the school year. Diversity Center staff members provide diversity lectures and trainings to campus and community partners upon request.

Cultural Celebrations and Events: In the Fall of each year, the Diversity Resource Center presents its Diversity Week Programming. In January, the Center remembers the life and legacy of Dr. King at its annual MLK March and Celebration. In April, the Center recognizes the accomplishments of ISU graduates from diverse backgrounds at the Cultural Celebration of Academic Excellence. In addition to these, the center also actively collaborates with student organizations and campus departments to maximize efforts to provide programming ranging from cultural nights and holiday celebrations, to movies and other diversity related activities.

Reserving the DRC: Student groups can also reserve the Center for meetings and other events by filling out a request form. The DRC is open to all members of the Idaho State University community regardless of gender identification, sexual orientation, ethnic or cultural background, religion, abilities, or age – everyone is welcome!

Early Learning Center (ELC)

Kerry Williamson, Director
<https://www.isu.edu/elc/>

Early Learning Center, near the Pond Student Union Building, Pocatello
921 S 8th Ave Stop 8316
Pocatello, ID 83209-8316
(208) 282-2769

Sam Bennion Student Union Building, Idaho Falls

1784 Science Center Drive
Idaho Falls, 83402
(208) 282-7868

The Early Learning Center (ELC) has child care centers in Pocatello and Idaho Falls. Both sites participate in the IdahoSTARS Steps to Quality program, and the Pocatello site is STAR-rated (visit www.idahostars.org (<http://www.idahostars.org>) for more information). The Pocatello Center cares for children six weeks through eleven years of age, while the Idaho Falls Center accepts children ages two through six. Services are provided to ISU students and faculty/staff, as well as to community members. In Idaho Falls, the privilege is extended to the same members of the University of Idaho community. Each center offers a developmentally appropriate curriculum; USDA-approved breakfast, lunch, and afternoon snack are provided.

The Pocatello program is housed in the Early Learning Center, located near the Pond Student Union Building. In Idaho Falls, the center is in the Sam Bennion Student Union Building.

Entertainment

Every week during the school year and the summer semester, the Student Activities Board (<http://www.isu.edu/sab>), Union Program Council (<http://www.isu.edu/union/upc>), and other student organizations (<http://www.isu.edu/stdorg>) host a wide variety of activities—movies, concerts, lectures, homecoming events, holiday parties, theatrical plays, celebrations, and more! In addition, the Pond Student Union (<http://www.isu.edu/stunion>) houses a Games Center with video games, billiards, and bowling. For the more relaxed crowd, television sets are located in the Bengal Café and the lower level of the Pond Student Union.

Intensive English Institute/English for Speakers of Other Languages

Rendezvous Building
3rd Floor, Room 338
921 S. 8th Ave. Stop 8010
Pocatello, ID 83209-8010
(208) 282-3662
<https://isu.edu/iei/>
iei@isu.edu

The Intensive English Institute (IEI) and English for Speakers of Other Languages (ESOL) program provide academically-oriented English language instruction, tutoring, and cultural support for international students before and during their degree programs. All services are provided by instructors with advanced degrees, Teaching English to Speakers of Other Languages (TESOL) credentials, and relevant experience.

International Programs Office

Museum Building, Room 426
921 S 8th Ave Stop 8038
(208) 282-4320
<http://www.isu.edu/ipo/>

The office of International Programs and Services provides assistance to the - international students, faculty, and scholars on campus as well as providing assistance to those interested in an international educational experience abroad. International student services include student orientation to the Idaho State University campus and Pocatello community, ongoing cross-cultural activities, and additional programs to help international students make the most of their time at Idaho State University.

Education-abroad services include assisting students in choosing a program, facilitating the credit transfer, and conducting a pre-departure orientation for those about to embark on an international experience. Services continue for those who have returned from an experience abroad.

This office supports all academic departments in bringing foreign faculty and visiting scholars to campus by assisting with the necessary paperwork for immigration and by offering support services to departments hosting visiting scholars.

Finally, this office coordinates communication among relevant offices on campus and works with faculty, administrators, and the student organizations to provide ongoing support and guidance for international students, scholars, and faculty and those who have completed an international educational experience.

Janet C. Anderson Gender Resource Center (GRC)

Rendezvous 235, Stop 8141
Idaho State University
Pocatello, ID 83209-8141
(208) 282-2805
<https://isu.edu/grc/>

The Janet C. Anderson Gender Resource Center (GRC) provides education, training and programming at Idaho State University. The center hosts events, trainings, and programs that bring awareness to gender and sexuality equity and inclusion. The GRC strives to address gender and sexuality inequities and foster a campus community that values inclusion, social justice, equity, and respect for everyone regardless of background and experience. The GRC develops events to provide opportunities for all members of the Idaho State University community to explore, understand, and promote learning around issues.

Education and Programming: Lectures, panels, film screenings, art shows, group discussions, lunchtime talks, presentations, focus groups, and special events. The GRC develops events for Domestic Violence Awareness Month, Women’s History Month, Sexual Assault Awareness Month, and many other nationally recognized commemorative months and days.

Education and programming focuses on support of the LGBTQ community, women’s issues, power based personal violence awareness, healthy relationships, consent, dating and sex awareness, and other prominent social matters.

Trainings: The ISU Green Dot Bystander Intervention Program is a nationally recognized leadership program that promotes the intolerance of violence on campus and in communities. Green Dot is based on training campus leaders to change the culture, “Every Day Everyone, No one has to do everything... Everyone has to do something!” The GRC has certified Green Dot facilitators who provide education and training in Green Dot practices for ISU faculty, staff, and students. Contact the GRC for information, training dates, or to schedule a group training.

Conferences: Each spring semester, the GRC partners with several departments on campus and includes the Department of Public Health to bring the annual “Positive Body Image Symposium” to campus. The “Positive Body Image Symposium” is open to faculty, staff, and students. Members of the surrounding communities are welcome to attend. There are contact hours (CU’s) available for many majors and professions.

The symposium features renowned researchers and lecturers with expertise in different types of body image related topics. The topics are uplifting and provide attendees with proactive ways to feel comfortable in the bodies each of us are given.

Resources: The GRC has information on campus and community resources.

Additionally, we offer internship, practicum, and volunteer opportunities for Idaho State University students, faculty, and staff, as well as educational presentations on a variety of gender and sexuality related topics.

The GRC is open to all members of the Idaho State University community regardless of gender identification, sexual orientation, ethnic or cultural background, religion, abilities, or age – everyone is welcome! Everyone who is a part of the GRC, whether staff, intern, or volunteer, strives to ensure that all GRC services and activities will be accessible and available, provided in safe and comfortable surroundings, of high quality, and of interest to the Idaho State University community. The opportunities at the GRC are limited only by the imaginations of those who choose to participate.

Military Education Benefits

For any information concerning veterans' educational benefits, rights, and opportunities, contact:

Military Education Benefits Chief
Office of the Registrar
921 S 8th Ave Stop 8196
Pocatello, ID 83209-8196
(208) 282-2676
<http://isu.edu/registrar/military-ed-benefits/>
vco@isu.edu

Native American Student Services

Idaho State University
Native American Student Services
921 S. 8th Avenue, Stop 8010
Pocatello, Idaho 83209-8010
<https://www.isu.edu/nass/>
nass@isu.edu

Native American Student Services assists, advises, and supports Indigenous peoples in the attainment of their educational goals through academic advising, tutoring, cultural activities, utilization of internal and external resources, and advocacy. It is our goal, through these services and others provided by Idaho State University, to promote retention and increase the graduation rates of our Native students.

Office of Equity and Inclusion

Rendezvous Building, Room 157
921 S. 8th Ave., Stop 8315
Pocatello ID 83209
(208) 282-3964
<http://www.isu.edu/aaction/>

The Office of Equity and Inclusion strives to create an environment where all individuals feel welcome and safe—a campus where every student is treated with dignity and respect.

The University is committed to creating and maintaining a learning environment that is free of discrimination and harassment against an individual on the basis of that person's race, color, religion, gender, age sexual orientation, national origin, ancestry, physical or mental disability, or veteran status. Harassment and discrimination will not be tolerated and should be reported to the Office of Equity and Inclusion. Our helpful, friendly staff are available to work with any member of the university community. We look forward to serving you.

Outdoor Adventure Center

Pond Student Union, First Floor
(Lower northwest entrance off the Quad)
921 S 8th Ave Stop 8128
(208) 282-3912

Here is your ticket to adventure, fun, and smiles! Students, faculty, and staff are invited to participate in any or all of the Outdoor Adventure Center's activities. The Center offers common adventure-based outings and classes such as canoeing, climbing, cross-country skiing, kayaking, rafting, backpacking, caving, mountain biking, horseback riding, mountaineering, orienteering, and camping. Rental equipment is available for a variety of outdoor activities. The Center also teaches special topic workshops on topics such as avalanche awareness, back-country survival, and the Leave No Trace ethics.

The Outdoor Adventure Center hosts speakers and other special events like the Pocatello Pump (a climbing competition). The Center has an extensive resource center with books, magazines, and maps. The Center manages the Portneuf Yurt Range Yurt System, consisting of five yurts available for use by winter enthusiasts.

Visit our website at <http://www.isu.edu/outdoor>.

Religion

Religious activities among students are promoted by Pocatello churches. There are three religious centers on campus; the LDS Institute (<https://studentview.lds.org/home.aspx/60320>), St. John's Community (<http://bengalcatholics.com>) (Roman Catholic), and the University Bible Church (<http://www.universitybible.org>).

Some of the religious organizations on campus include the Baptist Campus Ministries, Campus Crusade for Christ, Catholic Campus Ministry, Idaho State University Ecumenical Ministry (American Baptist, Christian-Disciples of Christ, Episcopal, United Methodist, United Presbyterian, and United Church of Christ-Congregational), Latter-Day Saints Student Association, Lutheran Campus Ministry, Muslim Student Association, and Wesley Foundation.

Scheduling and Event Services

Pond Student Union, Hypostyle Room 299
921 S. 8th Ave., Stop 8354
(208) 282-2297
<https://www.isu.edu/studentunionscheduling/>

The Scheduling and Event Services Office assists students, the campus community, and university guests in planning and coordinating meetings, conferences, programs, and other special events to serve the educational development needs of Idaho State University. The office coordinates facility reservations and room set-up, including sound and audiovisual equipment needs.

Student Activities Board

Student Involvement and Orientation
Pond Student Union, First Floor
921 S 8th Ave Stop 8118
(208) 282-3451
<http://www.isu.edu/sab/>

The Student Activities Board is responsible for many of the entertainment and social programs on campus. This student committee has the responsibility of programming, homecoming, musical entertainment, Bingo, speakers, family - programming, and many other activities. The Student Activities Board provides valuable leadership experience for its members, who learn to maintain and

work within a budget, negotiate and fulfill contractual details, arrange publicity, work with committee members, and coordinate all details associated with event production.

Student Employment

For student employment possibilities, see the Career Center above.
(208) 282-2380

Student Opportunity Development

Rendezvous Building, 3rd Floor, REND 333 (208) 282-3662 921 S. 8th Ave. Stop 8010 Pocatello, ID 83209-8010 isu.edu/studentopportunityopportunities@isu.edu

Student Opportunity Development prepares and connects students with experiential learning opportunities that allow them to apply their academic skills outside of the classroom. Student Opportunity Development works directly with undergraduate students to help them find internships around the state, along with opportunities for volunteer work, international experiences in coordination with our Study Abroad program, other campus experiences via National Student Exchange, and service learning to combine community service with academic activity.

Student Organizations & Greek Life

Student Involvement and Orientation
Pond Student Union, First Floor
921 S 8th Ave Stop 8170
(208) 282-3451
<http://www.isu.edu/stdorg>

Organizations play an important role in the education of students at Idaho State University. We encourage a rich climate of diverse and active organizations.

At Idaho State University there are over 150 active clubs and organizations including academic, professional, cultural, religious, service, and special interest organizations, honor societies, sports clubs, and fraternities and sororities.

Minimum requirements for membership in an organization are determined by the university. To be eligible to join a recognized university club or organization, a student must be a regularly enrolled, fee-paying student in good standing.

Other regulations and/or standards are set by the individual clubs or organizations.

All organizations are required to file a list of their officers, members, and advisor with the Office of Student Organizations every year to remain current and eligible to receive the privileges of a recognized club or organization.

Regulations for fraternity and sorority recruitment are determined by the National Panhellenic Conference and the fraternity organizations.

Greek-letter fraternities and sororities at Idaho State University are coordinated by the Greek Council and Panhellenic Council. Currently, these are Alpha Xi Delta, Kappa Sigma, Sigma Sigma Sigma, Lambda Theta Phi, and Lambda Theta Alpha.

Student Success Center

Pocatello:
Rendezvous Building, 3rd Floor
(208) 282-3662
isu.edu/success
success@isu.edu (ssc@isu.edu)

Idaho Falls:

Center for Higher Education, Room 220
(208) 282-7925

Mailing address for both locations:
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010

The Student Success Center provides services and programs that are essential to student academic and intellectual development at Idaho State University. We encourage all students to realize their potential as prepared, responsible, and self-actualized members of an increasingly complex, diverse, and global society. The Student Success Center houses the following academic services and programs: Bengal Bridge, First Year Transition, Intensive English Institute/English for Speakers of Other Languages, Student Opportunity Development, University Honors Program, and University Tutoring.

Student Involvement Center

Student Involvement and Orientation
Pond Student Union, First Floor, Room 112
921 S 8th Ave Stop 8138
(208) 282-2973

The Office of Student Involvement and Orientation supports the holistic development of Idaho State University students through programs focused upon transition to the university, campus engagement, personal leadership, and service to others. Signature efforts of this office include New Student Orientation, Parent and Family Orientation, Week of Welcome, Benny's Pantry, Omicron Delta Kappa Leadership Honor Society, Service Corps (student volunteerism organization), Student Activities Board, Greek Life, Creative Productions graphic design, Summer Programs, and Clubs and Organizations.

TRiO Access and Opportunity Programs

Museum Building, Room 434
921 S 8th Ave Stop 8345
Pocatello, ID 83209-8345
(208) 282-3242
<http://www.isu.edu/trio/>
trio@isu.edu

ISU TRIO Access and Opportunity Programs is a multifaceted, federally funded student assistance program geared to preparing eligible students to enroll in and graduate from post-secondary institutions. Idaho State University is one of only five college/universities in the nation that hosts all SEVEN student-serving TRIO grant programs. Here is a quick reference guide to help you understand all the aspects of ISU TRIO Access and Opportunity Programs.

TRIO Student Support Services

Collegiate Program

The TRIO SSS program provides advising, tutoring, and academic support to help first generation, limited income students and student with disabilities continue their post-secondary education and complete a bachelor's degree.

Office located in the ISU-Pocatello Museum Building RM 446

TRIO McNair Scholars Program

Collegiate Program

The TRIO McNair Scholars program assists students in their final two years of their undergraduate degree with the academic and professional development goal of participating in a research-based doctoral program.

Office located in the ISU-Pocatello Museum Building RM 446

TRIO Educational Talent Search

Pre-collegiate Youth Program

The TRIO ETS program is designed to help middle school and high school students prepare for and enroll in college. TRIO ETS staff members visit high schools weekly, providing college preparation advising, exposure field trips, and after school tutoring. ISU TRIO ETS serves 17 high schools from Wendell to the Idaho Falls area.

High Schools Served: Idaho Falls, Bonneville, Skyline, Blackfoot, Snake River, ShoBan, Highland, Pocatello, Century, American Falls, Aberdeen, Burley, Minico, Twin Falls, Canyon Ridge, Jerome, Wendell

TRIO Upward Bound and TRIO Upward Bound Math & Science

Pre-collegiate Youth Program

The TRIO UB/UBMS programs are divided into two periods of instruction: summer and academic year. During the summer, students come to ISU for a six-week residential program to take classes concentrating on college preparation coursework. The academic year offers tutoring and advising to students on a weekly basis. ISU TRIO UB/UBMS serves 9 high schools from Aberdeen to the Idaho Falls area.

High Schools Served by UB: American Falls, Aberdeen, Highland, Century, Pocatello

High Schools Served by UBMS: Shelley, Firth, Bonneville, Idaho Falls

TRIO Educational Opportunity Center

Pre-collegiate Adult Program

The TRIO EOC program provides counseling and information on college admissions to qualified adults who want to enter or continue a program of post-secondary education. The program aids with applications and financial aid, along with academic and financial counseling.

Offices are located at the College of Southern Idaho Mini-Cassia Center, CSI Twin Falls Campus Evergreen Building, CSI Gooding Outreach Center, and CSI Jerome Outreach Center.

High Schools Served: Mt Harrison, Kimberly, Buhl, Canyon Ridge, Gooding

TRIO Veterans Program

Pre-collegiate Adult Program

The TRIO Veterans program assists veterans who are interested in pursuing a Technical Certificate, Associates degree, or a Bachelor's degree at the college/university of their choice. TRIO Veterans staff support students with any aspect of their educational attainment.

Offices are located in the ISU Veterans Student Services Office, ISU Idaho Falls TAB Building, and on the College of Eastern Idaho campus.

In order to participate in any of the TRIO programs, potential participants must meet the following criteria:

- Two-thirds of participants must meet federal low-income guidelines AND be first-generation college students.
- Remaining one-third of participants may qualify by meeting a variety of eligibility requirements. These requirements depend on the specific TRIO program.

- For the collegiate program, TRIO SSS students can qualify under this one-third criteria by being just low-income, just first generation, or a student with a disability.
- For the TRIO McNair Scholars program the one-third eligibility can qualify by being part of an underrepresented group as defined by the US Department of Education. Underrepresented groups include African American (https://en.wikipedia.org/wiki/African_American)/Black, Hispanic (<https://en.wikipedia.org/wiki/Hispanic/Latino>), American Indian (https://en.wikipedia.org/wiki/Native_Americans_in_the_United_States)/Alaskan Native (https://en.wikipedia.org/wiki/Alaskan_Native), Native Hawaiians (https://en.wikipedia.org/wiki/Native_Hawaiians), and Pacific Islanders (https://en.wikipedia.org/wiki/Pacific_Islanders).
- Students must also show a need for program services.

University Counseling and Testing Services

Pocatello:

Graveley Hall, Top Floor, South Wing
921 S 8th Ave Stop 8027
(208) 282-2130

Idaho Falls:

1784 Science Center Drive
Room 223 Bennion SUB
Stop 8150
(208) 282-7750
<http://www.isu.edu/ctc/>

Counseling Service

The staff of the University Counseling and Testing Service are available to assist students who are encountering personal, social, and emotional difficulties while enrolled at Idaho State University. During an initial assessment process, the student and counselor discuss the student's needs and concerns and decide upon an appropriate counseling plan. Individual, couples, and group counseling are available. When appropriate, the counselor will assist the student with a referral. We counsel students with a variety of concerns including, but not limited to, anxiety, depression, low self esteem, lack of motivation, eating problems, stress, grief, and interpersonal relations including couple and family problems.

Our counseling services are free and confidentiality is maintained within the ethical and legal guidelines of the American Counseling Association, the National Association of Social Workers, the American Psychological Association, and the State of Idaho. Staff are licensed by the State of Idaho as social workers, counselors, or psychologists. Masters' and Doctoral trainees (interns) are under the direct supervision of licensed staff.

Consultation and Crisis Intervention Services

Whenever any members of the university community has an immediate mental health concern for their self or another person, they may contact our office. One staff member is available each day during normal working hours for emergencies and consultations. After normal working hours, emergency response is initiated by contacting Campus Security and/or 911. Counseling staff may coordinate and assist with follow-up to such emergencies.

In addition to crisis intervention and follow-up services, counseling service staff are available for a variety of other consultations. The most common consultations include debriefing with individuals and departments who have had a critical incident, assisting individuals and departments in working with students with difficulties and providing support and follow-up to individuals and departments undergoing significant change.

Outreach Services

Our staff provide a wide variety of outreach services including: teaching academic courses; leadership development programs; workshops on communication skills, mindfulness, anxiety, anger, and stress management; guest lectures on a variety of topics; and information on such concerns as depression, anxiety, eating disorders, and sexual assault. Workshops, lectures, and courses can be designed to fit the needs of specific individuals, groups, or departments.

Testing Service

The University Counseling and Testing Service actively pursues the opportunity to serve the university and the community as a full service testing center. In addition to serving the university's needs for course placement testing, proctoring on-line course exams, and special requests for proctored exams, we currently serve the larger community as a contract test site for: PROMETRIC, ACT, Miller Analogies Test (MAT), GED, Pearson Vue, Kryterion, and CLEP. For current information on the cost and registration process for any of the over 500 examinations available through our center, please check out our website: <http://www.isu.edu/ctc/>.

University Health Center

921 S. 8th Ave. Stop 8311
(208) 282-2330
<http://www.isu.edu/healthcenter/>

All Idaho State University students regardless of insurance coverage, are eligible to receive services at the Health Center. There is no charge for an office visit.

University Health Center services are also available to ISU Faculty and Staff, their spouses, and dependents who have a valid Bengal ID card .

The University Health Center provides the entire range of medical office care as is provided at a hometown doctor's office. This includes everything from colds and flu to treatment of high blood pressure and diabetes. We care for broken bones, lacerations, abscesses, and other urgent care problems. Preventative health services such as immunizations, healthy lifestyle counseling, and birth control are areas of particular interest.

The University Health Center bills private insurance when billable services such as laboratory tests, X-ray studies, special procedures, etc., are performed. The University Health Center does its best to see people on the same day they are ill. Same day appointments are available daily. A valid Bengal ID card is required to obtain services. University Health Center services are also available to ISU Faculty and Staff, their spouses, and dependents who have a valid Bengal ID card.

The University Health Center is located at 990 Cesar Chavez Avenue—across from Graveley Hall.

University Honors Program

Rendezvous Building, 3rd Floor, Room 304A 921 S. 8th Ave. Stop 8010 Pocatello, ID 83209-8010 (208) 282-1383 isu.edu/honors honors@isu.edu
The University Honors Program is an academic learning community that offers a broad range of enriched educational experiences, typically found at a small private college, for bright, talented, and ambitious undergraduate students. The main goals of the program are:

1. Interdisciplinary Scholarship – developing the ability to integrate knowledge to express well-constructed insight and originality of thought through multidisciplinary courses and methodologies.

2. Intellectual and Creative Engagement – using the appropriate methodology and theoretical framework that includes design, synthesis, and interdisciplinary research.
3. Citizen Scholar – addressing real-world problems and finding ethical solutions, a process that culminates in reflective civic engagement, respect for diversity, and service-oriented action.

The University Honors Program offers interdisciplinary, theme-driven course sequences in the humanities, social sciences, and natural sciences. These courses are designed for students who are motivated to develop their critical and creative thinking in a more personalized atmosphere than may be expected in non-honors lower division courses. Honors courses are offered in small classes (25 maximum enrollment) by interested campus faculty, deal with broad and/or interdisciplinary issues, and confront some aspect of the human condition. Innovative teaching and assignments are encouraged, and interaction with faculty and class members is lively. Please check isu.edu/honors for this year's core curriculum themes and additional information. Questions about the University Honors Program and courses may be directed to the address above.

The University Honors Program Curriculum fulfills many of the General Education Requirements.

University Tutoring

Rendezvous Building, 3rd Floor, Room 323 921 S 8th Ave Stop 8010 Pocatello ID 83209-8010 (208) 282-3662 isu.edu/tutoringsuccess@isu.edu

Content Area Tutoring

The Content Area Tutoring (CAT) Program provides small-group tutoring in all academic areas except writing and math, which are handled through the Writing and Math Centers. Students may request tutoring in courses from anthropology to zoology at the CAT offices in Pocatello's Rendezvous Center (REND 323, 282-3662) or Idaho Falls (CHE 220, 282-7925).

Tutoring support for College of Technology students is available at the Resource Center on the 2nd floor of the the Roy F. Christensen Building, Room 262 For more information, contact Angie Lion at (208) 282-3208. You may also fill out a request form at <https://www.isu.edu/tech/tutoring/>.

Math Center

The Math Center provides drop-in tutoring services to help students on the Pocatello and Idaho Falls campuses understand concepts in undergraduate math and math-related courses. Tutors ask questions to clarify what students know and how the concept has been taught to them. They help students see what they have been doing incorrectly, and they work other examples with students to suggest approaches to the problems that students are doing.

Writing Center

The Writing Center provides individualized tutoring in Pocatello, Idaho Falls, and online to help students improve the quality of their writing for undergraduate and graduate courses in all subjects. Tutors are available by appointment to work with students at any stage of the writing process, from generating ideas to revising full drafts. They assist with organization and development of ideas for particular audiences and purposes, as well as with issues of punctuation and usage.

Veteran Student Services Center

“Your Veteran and Military Connection at Idaho State University”

Student Union Building
3rd Floor (near the Salmon River Suites)
921 S. 8th Ave., Stop 8095
Pocatello, ID 83209-8095

(208) 282-4245

<http://www.isu.edu/veterans/>

Veterans' Crisis Line (<https://www.veteranscrisisline.net/ForVeterans.aspx>)

The Veteran Student Services Center aims to make ISU one of the most “veteran-friendly” campuses in the United States by simplifying access to existing services, addressing the needs of the individual veteran, and supporting our growing community of student veterans and service members. As a veteran-centered transition and support program, our mission is to provide first-class service, guidance, and advocacy for ISU student veterans, benefit-eligible dependent students, and their family members through strong campus and community partnerships.

Professional staff and trained student advocates attend to students' needs; services include veteran/military-friendly study and computing areas, assistance with admissions, G.I. Bill benefits, academic advising, disability and learning resources, financial assistance and scholarships, career preparation, and a variety of other veteran-specific support and academic resources. The Center also works closely with the Student Veterans of America - Armed Forces Club, a student-run organization serving the veteran community, which has chapters on both the Pocatello and Idaho Falls campuses. For more information, contact the Veteran Student Services Center at (208) 282-4245.

Wellness Center

(208) 282-2117

<http://www.isu.edu/wellness/>

Students at Idaho State University (ISU) have the unique opportunity of having a wellness center on campus. The mission of the Wellness Center is to promote a holistic approach to health through providing opportunities that facilitate and support personal growth, either directly or through collaborating with other programs available at ISU, to positively influence the multiple dimensions of health: physical, mental, emotional, spiritual, social, and environmental. A wide variety of group exercise classes are offered through the GET-FIT Program. Classes include cardio/strength formats, such as including body sculpt and barbell, interval training and H.I.I.T.-type classes, Zumba®, Pound®, and mind/body formats, such as Pilates and yoga. All classes are held at ISU's Reed Gym. The current class schedule for the GET-FIT Program is available at <https://www.isu.edu/wellness/services/get-fit/>.

The Wellness Center also offers fitness assessments to ISU students. This includes cardiovascular endurance, body composition, blood pressure, flexibility, and abdominal strength. Students have access to two free fitness assessments per semester. Other services provided by the Wellness Center for students at no cost for a limited number of sessions include personal training and nutrition/wellness coaching. American Heart Association CPR/first aid courses are also available for a reasonable fee for groups of 6 or more participants.

For further information on Wellness Center programs and activities, please call the Wellness Center at (208) 282-2117, send an email to wellness@isu.edu, or visit the website at <https://isu.edu/wellness/>. Office hours during the Fall and Spring academic semesters are 8 a.m. - 5 p.m., Monday through Thursday, and 8 a.m. - 4 p.m. on Friday. Office hours during the Summer semester are 7:30 a.m. through 4 p.m., Monday through Friday.

Athletics

Holt Arena
<https://isubengals.com/>

The Department of Athletics at Idaho State University is a Division I (FCS) member of the National Collegiate Athletic Association (NCAA) and the Big Sky Conference. Men's sports offered are basketball, cross country, football, tennis, and indoor and outdoor track and field. Women's sports offered are basketball, cross country, golf, soccer, softball, tennis, indoor and outdoor track and field, and volleyball.

Athletic Eligibility

To participate in intercollegiate athletics, students must comply with the eligibility rules of the National Collegiate Athletic Association, the Big Sky Conference, and Idaho State University. Prospective students who have questions concerning eligibility should direct their questions to the Assistant Athletic Director for Compliance at 208-282-2486.

Intercollegiate Athletics-Directors and Coaches

Thiros, Pauline, Athletic Administration, Director of Athletics	Johnson, Ryan, Women's Basketball Associate Head Coach
Adams, Monty, Holt Arena Maintenance Supervisor	Joy, Erin, Ticket Office Manager
Anderton, Marilyn, Athletic Insurance Coordinator	Killin, CJ, Assistant Men's Basketball Coach
Atkins, Dallen, Golf Head Coach	Kohorst, Quintin, Director of Equipment Operations
Borich, Joe, Administration, Senior Associate Athletic Director for External Affairs	Letts, Candi, Softball Head Coach
Brereton, Debs, Women's Soccer Head Coach	Ludiker, Graysen, Assistant Director of Media Relations
Burningham, Danielle, Assistant Athletic Trainer	Malhado, Alexis, Marketing and Promotions Director
Burns, Blaise, Assistant Compliance Officer	Maloney, Gretchen, Women's Tennis Head Coach
Burtenshaw, Lisa, Learfield Sports Sales Representative	Manchan, Kolissa, Dance Head Coach
Carlson, Greta, Assistant Golf Coach and Holt Arena Accountant	Merkley, Hillary, Track and Field Head Coach
Casper, George, Holt Arena Director of Events	Mueller, Bryanna, Women's Basketball Assistant Coach
Christensen, Natalie, Registered Dietitian	Munns, Tyson, Football Director of Operations
Cooper, Roger, Football Assistant Head Coach	Naber, Becky, Management Assistant
Duncan, Jackie, Holt Arena Concessions Manager	Orozco, Krystal, Softball Assistant Coach
Faure, Caroline, Faculty Athletic Representative	Orozco, Lauren, Student Support Services, Academic Advisor
Ferriter, Michael, Football Assistant Coach	Packard, Laura, Holt Arena Administrative Assistant
Fiefia, David, Football Assistant Coach	Payne, Brandon, Interim Head Athletic Trainer
Fifita, Steven, Football Assistant Coach	Phelan, Staci, Assistant Athletic Director, University Business Officer
Fuger, Susan, Financial Technician	Phenicie, Robert, Football Head Coach
Gambles, Ted, Athletic Administration Administrative Assistant	Philipp, Michael, Football Assistant Coach
Graziano, Nancy, Associate Athletic Director/SWA	Pleasant, Phil, Student Support Services, Director of Academics
Hall Jr., JB, Football Assistant Coach	Powell, Tasha, Track and Field Assistant Coach
Hays, Donna, Bengal Athletic Boosters Executive Director	Prier, Aaron, Football Assistant Coach
Holguin, Kevin, Women's Soccer Assistant Coach	Reinstein, Liz, Assistant Athletic Trainer
Houle, Nate, Cross Country Head Coach/Track and Field Assistant Coach	Rodel, Mark, Men's Tennis Head Coach
Howard, Harold, Maintenance, South Side Holt Arena	Romriell, Melissa, Basketball Administrative Assistant

Ryan, Daniel, Strength and Conditioning Coach
Salvesen, Spencer, Game Day Operations Coordinator
Sanchez, April, Volleyball Assistant Coach
Sanchez, Ariel, Volleyball Director of Operations
Sargent, Jessica, Student Support Services, Academic Advisor
Schaack, Steve, Assistant Athletic Director, Media Relations
Schultz, Alex, Softball Assistant Coach
Silvers, Joe, Track and Field Assistant Coach
Sobolewski, Seton, Women's Basketball Head Coach
Sparrow, Cody, Assistant Athletic Director for Compliance
Strange, D'Shara, Women's Basketball Assistant Coach
Stucki, Misty, Cheerleading Head Coach
Taft, Dakota, Cheerleading Assistant Coach
Taylor, Kyle, Men's Basketball Assistant Coach
Walker, Dan, Track and Field Assistant Coach
Walsh, Tim, Men's Basketball Assistant Coach
Yancy, Kam, Football Assistant Coach
Yizar, Byrd, Assistant Athletic Director for Student Support
TBA, Assistant Athletic Trainer
TBA, Men's Basketball Head Coach
TBA, Volleyball Head Coach

Academic Calendar

Fall Semester 2019

Date	Event
April 2-5	Fall 2019 Early Registration for Freshmen
April 8	Class level registration begins for Fall 2019
August 19	Fall classes begin
August 23	Last day to add/drop early 8-week courses
August 30	Last day to register, add/drop, change section, or audit full semester courses
August 30	Last day to submit Idaho Residency Determination Worksheet with documentation to Office of the Registrar to declare Idaho residency
September 2	Labor Day holiday (no classes)
September 3	Seniors: Last day to file application for December 2019 graduation
September 20	Last day to WITHDRAW from early 8-week courses
September 30	Early 8-week final grading/Full term midterm grading opens
October 7-11	Mid-term week
October 14	Late 8-week courses begin
October 15	Early 8-week final grading/Full term midterm grading closes at 5:00 pm
October 18	Last day to add/drop late 8-week courses
October 21*	Spring 2020 Class Schedule viewable online
October 25	Last day to WITHDRAW from full semester courses
November 4*	Class level registration begins for Spring 2020
November 15	Last day to WITHDRAW from late 8-week courses
November 25-29	Fall recess (no classes -- Thanksgiving Break)
December 2	Late 8-week and full semester final grading opens
December 2-6	Closed week
December 9*	Summer 2020 Class Schedule viewable online
December 9-13	FINAL Examinations
December 13	Fall 2019 Classes End
December 17	Late 8-week/full semester final grading closes at 5:00 pm

Spring Semester 2020

Date	Event
November 4*	Spring 2020 Class Level Registration Begins
January 13	Spring classes begin
January 17	Last day to add/drop early 8-week courses
January 20	MLK Day/Idaho Human Rights Day (no classes)
January 21*	Seniors: Last day to file application for May graduation
January 27	Last day to register, add/drop, change section, or audit full semester courses
January 27	Last day to submit Idaho Residency Determination Worksheet with documentation to Office of the Registrar to declare Idaho residency
February 10*	Summer 2020 registration begins for ALL class levels
February 14	Last day to WITHDRAW from early 8-week courses
February 17	Presidents' Day holiday (no classes)
February 24	Early 8-week final/Full term midterm grading opens
March 2-6	Mid-term week
March 9	Late 8-week courses begin

March 10	Early 8-week grading/Full term midterm closes at 5:00 pm
March 13	Last day to add/drop late 8-week courses
March 20	Last day to WITHDRAW from full semester courses
March 23-27*	Spring Break (no classes)
March 27	Seniors: Last day to file application for August graduation
March 30*	Fall 2020 Class Schedule viewable online
April 7-10	Fall 2020 Early Registration for Freshmen
April 10	Last day to WITHDRAW from late 8-week courses
April 13*	Class level registration begins for Fall 2020
April 27	Late 8-week and full semester final grading opens
April 27 - May 1	Closed week
May 4-8	FINAL Examinations
May 8	Spring 2020 Classes End
May 9	Commencement (for students that graduate December 2019, May 2020, and August 2020)
May 12	Late 8-week/full semester final grading closes at 5:00 pm

Summer Semester 2020

Date	Event
February 10*	Summer 2020 Registration Begins
May 18	Early-4, Early-6, Early-8 and full term courses begin
May 22	Last day to add/drop Early-4, Early-6, Early-8 courses
May 25	Memorial Day (No classes)
May 29	Last day to add/drop Full term courses
May 29	Last day to WITHDRAW from Early-4 courses
June 1	Early-4 final grading opens
June 5	Last day to WITHDRAW from Early-6 courses
June 12	Last day to WITHDRAW from Early-8 courses
June 15	Middle-4 and Late-8 courses begin
June 15	Early-6 final grading opens
June 16	Early-4 final grading closes at 4:30 pm
June 19	Last day to add/drop Middle-4 and Late-8 courses
June 26	Last day to WITHDRAW from Middle-4 courses
June 29	Late-6 courses begin
June 29	Early-8 and Middle-4 final grading opens
July 3	Last day to add/drop Late-6 courses
July 4	Independence Day (No classes)
July 10	Last day to WITHDRAW from Late-8 courses
July 13	Late-4 courses begin
July 14	Early-8 and Middle-4 final grading closes at 4:30 pm
July 17	Last day to add/drop Late-4 courses
July 17	Last day to WITHDRAW from Late-6 courses
July 24	Last day to WITHDRAW from Late-4 courses
July 27	Full term, Late-8, Late-6 and Late-4 final grading opens
August 7	Summer 2020 Classes End
August 11	Full term/Late-8/Late-6/Late-4 final grading closes at 4:30 pm

* Dates subject to change.

Physical Facilities and University Services

The Idaho State University campus encompasses over 1,100 acres of property. Its 105 buildings are surrounded by 180 acres of attractively maintained landscape. There are over 5,600 parking spaces available throughout the campus.

For convenience, a free on-campus shuttle bus is available during the fall and spring semesters. Riding a bicycle is also a popular way to get around campus. The campus is located just off of the interstate, making access very easy. The university commuter bus system brings students to the campus from over 70 miles away from Idaho Falls, neighboring towns, and areas in between.

All academic units are housed in the various campus buildings ranging from the oldest, Frazier Hall (built in 1925), to the newest, the Rendezvous Building (completed in 2008). The Rendezvous is a new 256,000 square foot, multi-use facility located in the center of campus. It contains 82 student suites that house 300 students, a 40 classroom academic building with a 250 seat lecture hall/future planetarium, a core food service facility to serve housing students and retail customers, as well as a 120 seat drop-in computer lab and numerous styles of study and relaxation spaces. This expansive facility creates a new living, learning, studying, social, and academic heart for the campus.

The L. E. and Thelma E. Stephens Performing Arts Center, completed in 2004, is located on 16.8 acres, high on a hill on the perimeter of the campus, adjacent to Interstate 15. This 123,000 square foot facility includes a 1,200 seat concert hall, an elegant rotunda, a 446 seat thrust theatre, and a 200 seat black box theatre. The three-level concert hall, the Center's largest venue, incorporates state-of-the-art design and technology to optimize sound. The Center also includes classroom space, offices for the Department of Theatre and Dance, and a conference room. The facility and the various wonderful performances it presents are a must-see part of campus.

Opened in October 2008, the Center for Advanced Energy Studies or "CAES" Building is a world-class research facility with offices and laboratories for collaborative projects between Idaho State University, Boise State University, the University of Idaho, and Idaho National Laboratory scientists and engineers. It is certified as a LEED Gold building and located on our Idaho Falls campus. It is a 55,000 square foot, \$18 million facility and includes a fluids lab, advanced materials lab, imaging suite, radio chemistry and chemistry labs, systems modeling, power wall, and visualization cave.

Opened in August 2009, the 101,000 square foot ISU-Meridian Health Sciences Center includes programs with an emphasis on health sciences, consolidating programs already leasing space in Meridian and the Treasure Valley.

In 2011, ISU purchased the Ballard Medical/Kimberly Clark building, which the university repurposed as a research facility. Renamed in 2017, the William M. and Karin A. Eames Advanced Technical Education and Innovation Complex now houses several programs from the College of Technology, allowing the college to expand its programs and providing opportunities for research.

Remodeling and updates of the campus are an ongoing process. All of the campus buildings are accessible to the disabled.

Occupied in 1971, Holt Arena was the first enclosed football stadium on any university campus. The arena is used for football and basketball games, indoor track meets, and various trade and garden shows, as well as championship rodeos.

Remodeled in 2002, Reed Gymnasium provides a unique and exciting venue for basketball games, volleyball, and other sporting events. A world-class climbing wall is located in the Recreation Center along with racquetball courts, a running track, weight rooms, and other sports equipment as well as an Olympic-size swimming pool. The Recreation Center was expanded in 1996. A new \$7.7

million expansion, completed in April 2010, includes weight, cardio-training and fitness areas, dance/multipurpose rooms, offices, and lobby.

A new NCAA Women's Softball Field and locker room facilities have been completed and provide a competition-level practice and performance field for the ISU women's softball team.

Historic Davis Field provides a well-maintained, multi-use field and outdoor running track where Idaho State University hosts a variety of events including soccer and track tournaments and Special Olympics. Bartz Field is a 30 acre, dog-friendly field used for events such as softball, archery, sledding, cross country, golf, and rugby. The Pocatello Greenway passes through the campus above Davis Field, connecting with 13 miles of trail through the Portneuf Valley.

Outdoor recreation opportunities abound on the many acres of developed and undeveloped campus grounds. A disc golf course, challenging cross-country track, vertical challenge tower, bike trails, jogging trails, hiking areas, and walking paths are part of the Idaho State University campus. Softball, track, ultimate frisbee, soccer, and rugby are all options for the active student. Summer and winter sports, including rock climbing, skiing, and snowboarding, are also available only minutes away in the beautiful mountains surrounding the city. Just 35 miles away, located in the mountainous valley of the Portneuf River on the old route of the Oregon Trail and California Trail, the city of Lava Hot Springs is a popular resort location, noted for its numerous hot springs amenable to bathing, an Olympic-size swimming pool, and unique shops and restaurants.

The ISU-Idaho Falls campus provides modern classroom facilities and a student union. The university also has many outreach centers available to assist students in Southeast Idaho, Twin Falls, and Meridian.

The University Bookstore

The ISU Bookstore, called the University Bookstore, is located in the lower level of the Pond Student Union. The bookstore carries both new and used textbooks for all your courses, as well as school and office supplies, Bengal gear and gifts, and general interest books.

Bookstore hours are 8 a.m. – 5 p.m. Monday – Friday, and 10 a.m. – 2 p.m. on Saturdays during the fall and spring semesters, and 8 a.m. – 4 p.m. Monday – Friday during the summer. The bookstore can be reached at 208-282-3237, or online at <http://www.isustore.com>.

A bookstore is also located at the Idaho Falls campus called the University Place Bookstore, and they can be reached at 208-282-7940, or online at <http://www.idahofallsstore.com>.

Students can purchase their textbooks online by going to their concise class schedule, which can be found under Registration Tools on the Academic Tools page of BengalWeb (<https://bengalweb.isu.edu>). On the Concise Student Schedule, go to the bottom of the page and click on the link corresponding to your campus: "Buy Pocatello Books" or "Buy Idaho Falls Books."

Refunds will be paid with receipt through the first week of classes for fall and spring semesters, and during the first two days of summer classes. Refunds, with receipt, will be paid through the drop/add period with proof of dropped class. All refunded books must be returned in the condition purchased; new books that are marked or damaged will be refunded at the used book price. See store for details.

Information Technology Services

Idaho State University's Information Technology Services (ITS) is dedicated to meeting the computing needs of ISU's students. ITS maintains nine full-service computer labs in Pocatello, three in Idaho Falls, and two in Meridian. Visit our Classrooms and Computer Labs (<https://tigertracks.isu.edu/TDClient/KB/?CategoryID=9364>) page in TigerTracks for more information on locations, hours, capacity, and software available in each lab. Students get ~500 pages of free black and white printing each semester, available in our computer labs.

Many individual departments operate additional computer labs (partially supported by ITS) that often feature specialized discipline-specific software. ITS also provides kiosk computers in numerous locations on each campus to provide fast and convenient stand-up email and Internet access. And finally, ITS provides wireless access (TigerNet) for students on campus who have their own mobile devices. Information on wireless services on campus is available from our Wireless FAQ (<https://tigertracks.isu.edu/TDClient/KB/ArticleDet?ID=45048>) page in TigerTracks.

All ISU students are automatically given a free ISU email account with an assigned email address. ISU uses this account for ALL official communication, from waitlist notifications to pending deadlines. Students should check their ISU email often or have it forwarded to their preferred email address to avoid missing important university messages. TigerTracks contains an article entitled [Forwarding your ISU Email](#) with complete instructions.

BengalWeb (<https://bengalweb.isu.edu>) provides one-stop, personalized access to all of ISU's electronic resources. Students can use it to register for classes, print out class schedules, find book lists and campus maps, check on financial aid, pay for classes and fees, construct a graduation plan, check on grades, and request a transcript. It also provides links to campus news, advising, housing, library services, movie schedules, employment opportunities, and TigerTracks--an online resource for requesting help or looking up answers to questions. All admitted students have access to BengalWeb at <http://bengalweb.isu.edu>.

The IT Service Desk provides technology support to students accessing IT services, such as Moodle (<https://tigertracks.isu.edu/TDClient/KB/?CategoryID=8841>), BengalWeb (<https://tigertracks.isu.edu/TDClient/KB/?CategoryID=8949>), ISU e-mail, wireless access (<https://tigertracks.isu.edu/TDClient/KB/?CategoryID=8514>), and printing. This support is available through TigerTracks (<https://tigertracks.isu.edu/TDClient/Home>), by calling 208-282-HELP (4357), or by visiting one of the walk-in service locations (<https://tigertracks.isu.edu/TDClient/KB/ArticleDet?ID=43470>).

Student Unions

Idaho State University offers student union services in three locations: the Earl R. Pond Student Union and Hypostyle (Pocatello lower campus), the Samuel H. Bennion Student Union (Idaho Falls), and Union facilities in the new Rendezvous Center (Pocatello mid campus). These locations serve the campus as focal points for experiential education and provide student opportunities for campus employment.

The Earl R. Pond Student Union provides students with: lounges, automatic teller machine, food service, bowling, billiards, movie theater, computer lab, copy service, ballroom, barber shop, bookstore, meeting rooms, guest rooms, and much more. This facility is in constant use by students, organizations, university departments, and community groups.

The Pond Student Union and the Union Hypostyle house offices for the Associated Students of Idaho State University (ASISU), Student Affairs, including the Vice President for Student Affairs, Director of Student Life (University Judicial Officer), *The Bengal* student newspaper, the Outdoor Adventure Center (comprised of C.W. HOG, Outdoor Program, and Outdoor

Adventure Rentals), Craft Shop, Idaho State University Mail Center, KISU-FM Public Radio, Student Involvement and Orientation, Scheduling and Event Services, Student Activities Board (SAB), Student Organizations and Greek Life, Union Program Council (UPC), University Food Services, an ISU Credit Union branch, and the Bengal Card Services office.

The Samuel H. Bennion Student Union provides students with: lounges, automatic teller machine, food service areas, computer lab, multi-purpose room, bookstore, meeting rooms, the Student Health Center, TRiO Student Services, Parking and Bengal Card Services, Counseling, Testing, Career Services, Early Learning Center, and the offices of Student Services.

The Rendezvous Center offers additional student lounging areas, automatic teller machine, food service areas, computer lab, meetings rooms, and a convenience store.

University Housing

<https://www.isu.edu/housing>
 mailto:reslife@isu.edu
 208-282-2120
 745 S. 5th Avenue, Stop 8083
 Pocatello, ID 83209-8083

According to the American Council on Education, students who live on campus are more likely to succeed academically than students who live off campus. This includes earning higher grades and being more likely to complete a college degree. University Housing is here to contribute to your success at Idaho State University.

Housing Options

University Housing offers traditional residence halls and suites, as well as apartments. Traditional age first-year students are eligible to live in either the residence halls or the suites; however, returning students have priority and availability in the suites can be limited. On-campus apartments are available for sophomores and above, married students, and students with children. Floor plans and photos, as well as pricing, can be found at <https://www.isu.edu/housing>. The housing fee covers all utilities and basic cable television, laundry, and wireless internet.

Food Service

University food service is required for first-year and second-year students living in the residence halls, and is an option for other students, regardless of whether they live on campus.

To Apply

Applying for University Housing is separate from application to Idaho State University. Housing applications are completed and submitted online. To apply, simply go to the Housing website (<https://www.isu.edu/housing>) and then click the "Apply Now" link or the link can be found through the bengalweb portal, under University Resources. Then select either the residence hall or apartment application. If you have questions please email reslife@isu.edu.

University Library

The University Library, named for a former Library Director and intellectual freedom luminary, Eli M. Oboler, provides academic collections and services for the Idaho State University community. Two other ISU Library facilities provide service to ISU students, staff, and faculty: the ISU Library-Idaho Falls and the ISU Library-Meridian. The main ISU Library is on campus in Pocatello, and includes the Idaho Health Sciences Library (IHSL) and the Arthur P. Oliver Law Library.

Collections provided by the ISU Libraries include books, journals, newspapers, maps, governmental publications, streaming media collections, databases, special collections, and university archives. Services provided by the ISU Libraries include reference and research assistance, library instruction, interlibrary loan, and reserves. Visit the Libraries at <http://www.isu.edu/library>.

Library Courses

LLIB 1115 **Introduction to Information Research: 3 semester hours.** Develop life-long strategies for recognizing when you need information, locating it, evaluating it, and using it effectively and ethically. Explore a variety of tools and formats in order to find sources worth using/citing in support of academic projects. Satisfies Objective 8 of the General Education Requirements. F, S

LLIB 1125 **Introduction to Health Information Research: 3 semester hours.** Develop life-long strategies for recognizing when you need health information,

as well as how to find it, evaluate it, and use this information effectively and ethically. This course will focus on concepts such as evidence-based practice, developing a well-built clinical question, searching biomedical information resources, and using health-science research techniques. S

Graduate Programs and Graduate Courses

Idaho State University offers many master's and several doctoral programs as well as a Family Practice Residency Training Program for physicians. Numerous graduate courses are delivered in almost all disciplines. Undergraduates who are last semester seniors may take up to six credits at the graduate level in the 5000 series with permission. Enrollment in graduate courses requires admission to graduate school, except for the professional development courses that are the 5597 series. For additional information regarding graduate courses and programs of study, please see the *Graduate Catalog*.

Idaho Museum of Natural History

Director: Dr. Leif Tapanila

Mission Statement

The mission of the Idaho Museum of Natural History is to acquire, preserve, study, interpret, and display objects relating to the natural history of Idaho and the Northern Intermountain West for research and education. The Museum seeks to enhance in the citizens of Idaho and visitors an understanding of Idaho's natural and cultural heritage. Specific areas of interest encompass the anthropology, botany, geology, paleontology, and zoology of Idaho and the Northern Intermountain West. Audiences served include citizens of Idaho, visitors, and the national and international community of students and scholars. Information is disseminated through exhibitions, public and professional presentations, publications, formal and informal education, telecommunications, and other interpretive programs.

Curators in Anthropology, Earth Science, and Life Science lead national and international research. Our active research profile supports acquisition and use of collections for all areas of natural history research and education. ISU faculty and students have access to Museum collections for instruction, training, and graduate theses and dissertations.

Our Public Programs Division develops and implements programs and exhibitions on a wide range of science topics, emphasizing current Museum research and environmental and ecological themes. These programs are both university level and for K-12 education.

The Museum offers undergraduate and graduate students educational credits under the Museum subject code and through courses in Anthropology, Biology, Education, Geosciences, History, and other affiliate Idaho State University departments. See Museum course descriptions (p. 605) in the All Courses section of the catalog.

For more information, please visit the Idaho Museum of Natural History's website at: isu.edu/imnh/.

Faculty (p. 147)

Courses (p. 605)

Institutes

Institute for Biomedical Sciences at Idaho State University (IBSISU)

Director: Vacant

The Institute for Biomedical Sciences at Idaho State University (IBSISU) is an Idaho-centric, multidisciplinary and inter-professional biomedical research and educational entity that leverages and grows the biomedical sciences core theme at Idaho State University.

The Institute creates a synergy and brings together the collective expertise of faculty and researchers from several colleges within the University based on the ‘bench-to-bedside’ model of accelerated advances in biomedical research. The Institute draws heavily on support through competitive extramural grants from national and international funding agencies such as the National Institutes of Health, World Health Organization and others. The Institute seeks partnerships with private industry in research funding, technology transfer and commercialization.

Informatics Research Institute (IRI)

<http://www.iri.isu.edu/>

Director, Informatics Research Institute

Dr. Corey D. Schou
University Professor of Informatics
Professor of Computer Science
Director, National Information Assurance Training and Education Center

Research Faculty

Research Professor
Dr. Lawrence Leibrock

Research Assistant Professor
Dr. James Frost
Simplot Decision Support Center

Affiliate Faculty

Dr. Ronald E. Fisher
Zachary D. Tudor
Dr. Julie Ryan
Dr. Paul Cady
Dr. William Hugh Murray
Sean McBride
Dr. Frederick S. Albright
Robert A. Willis Jr.
Dr. Jill Slay
Dr. Kandi Truley-Ames
Dr. Edwin Armistead
Dr. Dennis Longley
Dr. George W. Romney
Jeremy S. Brown
Albert Ray Fox
Ashley Alley
John Howarth
Laura Martin
Ross Young

The Informatics Research Institute (IRI) is an academic unit providing coordination for several interdisciplinary degrees and research centers across

campus. Informatics is an integrative discipline that arises from the synergistic application of computational, informational, organizational, cognitive, and other disciplines whose primary focus is in the acquisition, storage and use of information in a broad spectrum of domains. It includes the study and application of information technology in the arts, sciences, commerce, medicine, and society in general. The IRI has a mission in teaching, research, and service. Activities include:

- Developing interdisciplinary programs in informatics
- Developing interdisciplinary degree programs
- Developing and offering outreach programs
- Coordinating activities of related centers on campus
- Providing leadership in critical infrastructure protection
- Developing educational programs
- Developing infrastructures to support research in diverse fields
- Coordinating interdisciplinary academic concentrations

The IRI coordinates activities among the National Information Assurance Training and Education Center (NIATEC), Simplot Decision Support Center (SDSC), Center for Innovative Technology in Archaeological Informatics (CITI-AI). The IRI charter includes development of interdisciplinary AA, AS, BA, BS, Masters and Doctoral programs as well as concentrations in Information Assurance.

Archaeological Informatics

CITI-AI – Center for Innovative Technology in Archaeological Informatics. The CITI-AI leads research in the organization and analysis of archaeological information. It creates and maintains active partnerships within the archaeological community and serves as an interdisciplinary center of activity uniting basic informatics research and modeling within the Informatics Research Institute, Idaho State University, and its affiliated faculty.

Simplot Decision Support Center

The Simplot Decision Support Center (SDSC) is a facility designed to increase group decision making effectiveness and efficiency. It is a research and development effort of Idaho State University resulting from the generosity of the Simplot Corporation. The Simplot Decision Support Center is one of a few dedicated facilities in the nation and is available as a resource to both local and national organizations. It has led the national effort in developing information assurance and computer security training and education standards for the federal government.

Information Assurance

NIATEC – The National Information Assurance Training and Education Center is a consortium of academic, industry, and government organizations to improve the literacy, awareness, training, and education standards in Information Assurance. As the federally designated cornerstone for essential education and training components of a strong Information Assurance initiative, the mission is to establish an effective Information Assurance infrastructure. NIATEC is associated with Idaho State University Center of Academic Excellence. It is a component in the national plan to establish a federal cyber-corps to defend against cyber-based disruption and attacks. Key to building such a cyber-corps is the implementation of robust graduate and undergraduate curricula in Information Assurance.

Institute of Emergency Management

Director: Mikitish

The Institute of Emergency Management (IEM), located on the Idaho State University - Meridian Health Science Campus, was created by the Idaho State Board of Education in July 2003. The purpose of the Institute is to offer workshops, courses, certificates, and degrees to meet the professional and career development needs of Idaho's emergency response community. IEM offers live-online Associate of Science and Bachelor of Science degrees in Emergency Management and Fire Services Administration, as well as the classroom-based Associate of Science degree in Paramedic Science and the B.S. in Health Science concentration in Emergency Medical Services. The Paramedic Science A.S. classes are conducted at the Meridian campus. For additional information visit <http://www.isu.edu/idiem/>.

Institute of Nuclear Science and Engineering (INSE)

Director and Associate Professor: Dunzik-Gougar

Idaho State University established an Institute of Nuclear Science and Engineering (INSE) with approval from the Idaho State Board of Education in 2003. The INSE objective is to expand research in nuclear engineering and science. The partners in this expanded research are the ISU College of Science and Engineering, the Office of Research, and the Center for Advanced Energy Studies. CAES is a research and education consortium comprised of the three Idaho public universities, the University of Wyoming, private industry, and the Idaho National Laboratory (INL). All of the faculty affiliated with INSE are also faculty of the Department of Nuclear Engineering and Health Physics programs in the College of Science and Engineering.

Idaho State University's proximity to INL and the INL's designation as the premier nuclear energy research laboratory in the U.S. create a great opportunity for nuclear engineering research at Idaho State University. A number of ISU's nuclear engineering faculty hold joint appointments at INL. Also, several faculty were previously employed at what is today the INL, in research and engineering projects.

INSE coordinates a scholarship program for students interested in pursuing a Bachelor of Science degree in nuclear engineering. Students at Idaho State University, the University of Idaho, or Boise State University may apply as sophomores in engineering. Completion of the Nuclear Engineering degree takes place at Idaho State University, on either the Idaho Falls or the Pocatello campus. Agencies within the U.S. nuclear industry, especially AREVA, the Department of Energy, and more recently, the Nuclear Regulatory Commission, have supported scholarships in this program. Participants are encouraged and assisted to find summer positions at INL.

For further information, visit <https://www.isu.edu/ne/facilities/>

Administration

For information about current university administration, please go to <http://isu.edu/administration/>, where you will find links to ISU's Organizational Chart, Mission Statement, Strategic plan, and other administrative information.

Idaho State University – Idaho Falls

Ann Howell, Director

Idaho State University–Idaho Falls
350 University Place
1784 Science Center Drive
Idaho Falls, ID 83402
7800 from campus telephones
(208) 282-7800 from off campus
<http://www.isu.edu/idahofalls/>

Idaho State University–Idaho Falls is the higher education center of one of Idaho's most dynamic cities. It offers a comprehensive general education curriculum as well as 40 complete degree programs, all from a Carnegie-classified research institution with more than 50 years of experience in helping Upper Snake River Valley residents achieve their goals. Idaho State University–Idaho Falls is the largest of Idaho State University's statewide network of higher education centers. It provides upper Snake River Valley students the opportunity to complete associate, bachelor, master, and doctoral degrees in Idaho Falls, making it the city's hometown university. Conveniently located at University Place on the banks of the Snake River, Idaho State University–Idaho Falls' neighbors include the U.S. Department of Energy headquarters for the Idaho National Laboratory, and the new Center for Advanced Energy Studies.

Students at Idaho State University–Idaho Falls take classes that are not only close to home, but also just a short drive from a three-state region's commercial, health care, business and government centers. Upper Valley residents who are seeking continuing-education opportunities find electives as well as noncredit professional- and personal-development courses. Day and evening classes also are available. Among the many degree programs that can be completed at Idaho State University–Idaho Falls are associate, bachelor, masters, and doctoral degrees in fields such as biology, business, history, mathematics and physics; the M.B.A.; the B.S. in nuclear engineering; the Ph.D. in Engineering and Applied Science (Nuclear Engineering); the B.S. in nursing; and the M.Ed. and Ed.D.

Through its partnership with the University of Idaho, students can take classes from either university. A joint partnership with the College of Eastern Idaho (CEI) allows for a smooth transition from a CEI associate degree to an ISU baccalaureate degree.

Idaho State University–Idaho Falls' contemporary facilities include up-to-date computing labs, a large auditorium and student-services offices. A campus centerpiece is the Samuel H. Bennion Student Union that includes study and games areas, cafeteria, lounge, bookstore, and computer lab.

Between classes, students can cross-country ski at adjacent Freeman Park, jog on the paved riverside greenbelt, or watch University Place's resident bald eagles and ospreys soar above the river.

To learn how Idaho State University–Idaho Falls can help you achieve your goals conveniently and affordably, call (208) 282-7800; visit the campus at 1776 Science Center Drive; or browse online at <http://www.isu.edu/idahofalls/>.

Idaho State University – Meridian

Sam and Aline Skaggs Health Science Center
1311 E Central Dr.
Meridian ID 83642
(208) 373-1700

<http://www.isu.edu/meridian/>

Idaho State University provides statewide leadership in the health sciences and related biomedical and pharmaceutical sciences and is committed to quality teaching, research, and services in Southwest Idaho.

ISU's presence in the Treasure Valley began in the early 1970s with clinical pharmacy rotations at the Veteran Affairs Medical Center in Boise and the Nampa State School. Since then, ISU— with approval from the Idaho State Board of Education— has added more than 32 graduate and undergraduate degrees to its academic offerings (<http://www.isu.edu/meridian/programs.shtml>) in the Treasure Valley. Most fields of study are in the health professions and sciences.

ISU-Meridian is located at the Sam and Aline Skaggs Health Science Center (<http://www.isu.edu/meridian/maps.shtml>), which houses eleven distance-learning classrooms; the L.S. Skaggs Pharmacy Complex; the L.S. & Aline Skaggs Treasure Valley Anatomy and Physiology Laboratories; human patient simulation and medical science laboratories. ISU-Meridian serves the Treasure Valley community by offering affordable clinic services (<https://www.isu.edu/meridian/clinics>) through the Delta Dental of Idaho Dental Residency Clinic, Speech/Language Clinic, Counseling Clinic, and Medication Therapy Management Clinic.

Unique to ISU-Meridian is its partnership with West Ada School District (<http://www.westada.org/site/default.aspx?PageID=1>), whose administrative offices and Renaissance High School are adjacent to the university. Renaissance students have the opportunity to graduate with an Associate of Arts in general studies from ISU through dual credit courses in the Early College Program.

Idaho State University – Twin Falls

Director: Chris Vaage, vaagchri@isu.edu

Assistant Director: Lesa Wagner, wagnlesa@isu.edu

Admin Assistant II: Maria Beltran, beltmari@isu.edu

Phone: (208) 933-2300

Fax: (208) 933-2309

CSI Hepworth Building, Su. 144

P.O. Box 1238

315 Falls Avenue

Twin Falls, ID 83303

<https://www.isu.edu/twinfalls/>

Idaho State University has offered courses in Twin Falls since the 1960s. As part of the University mission to serve southern Idaho residents, a center was officially established in Twin Falls in 1981 and soon after relocated to the campus of the College of Southern Idaho (CSI). As of 2018, residents of the Magic Valley are able to choose from 30 programs available to them through a hybrid of face-to-face, video conferencing and web courses, or fully online. They include associate through doctoral degrees and a variety of certification programs.

ISU-Twin Falls reports to the Office of the Provost, serving as liaisons to the community, to CSI, and to other ISU campuses. In addition, it provides full student support and services to prospective, transfer, and current ISU students, including those who are attending or planning to attend classes on other ISU campuses. Further support and assistance is available through an on-site Video Conference/Help Desk Manager, a fully-staffed TRIO office, and two full-time College of Education faculty.

For questions, assistance or more information, feel free to call, walk in, or visit our website!

Alumni Association and Foundations

Alumni Association

www.isu.edu/alumni
alumni@isu.edu
(208) 282-3755

The mission of the Idaho State University Alumni Association is to promote the welfare and to advance the objectives of Idaho State University through the sustained involvement of its alumni by providing philanthropic, intellectual, and social opportunities.

The Alumni Association is governed by a board of directors and administered through the Office of Alumni Relations, 554 S. 7th Avenue, Pocatello, in the Magnuson Alumni House, (208) 282-3755.

Specific goals are to identify alumni and friends to assist Idaho State University in strengthening support from its constituencies, to inform alumni and friends about Idaho State University, to provide for the efficient management of the Alumni Association, and to involve and motivate alumni and students to maintain their affiliation and support of Idaho State University.

The Alumni Board of Directors meets three times a year. The Director of Alumni Relations is appointed by the university administration.

Bengal Athletic Boosters

The Idaho State University Bengal Athletic Boosters (BAB) is a nonprofit organization formed to raise money for athletic scholarships. The main fund raising activities include an annual auction, scholarship fund drive, athlete-to-athlete phone-a-thon, several golf tournaments, and other special events held throughout the year.

The BAB was officially formed in September of 1976. It is governed by a board of directors and administered through the office of the Bengal Athletic Boosters located in Holt Arena. For information on becoming a member, contact the Bengal Athletic Boosters at (208) 282-2397.

Idaho State University Foundation, Inc.

The Idaho State University Foundation is a nonprofit corporation established in 1967 under the laws of the State of Idaho.

The mission of the Idaho State University Foundation is to stimulate voluntary private support from alumni, parents, friends, corporations, foundations, and others for the benefit of Idaho State University.

The foundation raises and manages private resources supporting the mission and priorities of the university, and provides opportunities for students and a degree of institutional excellence unavailable with state funding levels.

The foundation is dedicated to assisting the university in the building of the endowment to address, through financial support, the long-term academic and other priorities of the university.

The foundation is responsible for identifying and nurturing relationships with potential donors and other friends of the university; soliciting cash, securities, real and intellectual property, and other private resources for the support of the university; and acknowledging and stewarding such gifts in accordance with donor intent and its fiduciary responsibilities.

The Idaho State University Foundation is located on the first floor of the Administration Building.

Cooperative Education Programs

In addition to regular programs, Idaho State University students may be eligible to participate in any one of a number of special cooperative programs, both in-state and out-of-state. For specific information on requirements for pre-health professions programs, see the section on pre-health professional programs under the Kasiska Division of Health Sciences (p. 266).

Medical Specialty Programs

Idaho Dental Education Program (IDEP)

Depending on legislative appropriations, a certain number of Idaho residents are eligible to participate in the Idaho Dental Education Program. The program, a cooperative effort of Creighton University School of Dentistry and Idaho State University, provides Idaho residents with the opportunity to attend their first year of dental school at Idaho State University. Students will spend their second, third, and fourth years in Omaha, Nebraska. For further information, contact:

Idaho Dental Education Program
921 S 8th Ave Stop 8088
Pocatello, ID 83209-8088
(208) 282-3289
larsjeri@isu.edu

Or visit the IDEP website at: <http://www.isu.edu/idep/idep.shtml>.

Idaho residency for the IDEP program will be certified by:

Idaho State University
Office of the Registrar
921 S 8th Ave. Stop 8196
Pocatello, ID 83209-8196
irdw@isu.edu
(208) 282-2661

University of Washington School of Medicine

The Washington-Wyoming-Alaska-Montana-Idaho (WWAMI) Regional Medical Education Program (<http://www.uidaho.edu/academics/wwami>) allows a limited number of Idaho students the opportunity to study medicine using the combined resources of the University of Idaho and the University of Washington School of Medicine in Seattle.

Idaho residency for the WWAMI program will be certified by:

University of Idaho
Office of Registrar
875 Perimeter Dr MS4260
Moscow, Idaho 83844-4260

University of Utah School of Medicine

A limited number of Idaho residents are admitted to the University of Utah School of Medicine under an agreement with the University of Utah. Idaho partially subsidizes the cost of tuition and fees for each Idaho student admitted to the program.

Idaho residency for the University of Utah program will be certified by:

Idaho State University
Office of the Registrar
921 S 8th Ave. Stop 8196
Pocatello, ID 83209-8196
irdw@isu.edu

(208) 282-2661

Washington–Idaho Regional Veterinary Medical Education Program

The Washington–Idaho Regional Veterinary Medical Education Program (formerly WOI) allows a limited number of Idaho students the opportunity to study for a career in veterinary medicine using the combined resources of the University of Idaho College of Agricultural and Life Sciences Animal and Veterinary Science Department / Caine Veterinary Teaching Center–Caldwell, ID, and Washington State University College of Veterinary Medicine–Pullman, WA. Idaho partially subsidizes the cost of fees and tuition for each Idaho student admitted to this program.

For further information, contact:

College of Veterinary Medicine
Office of Student Services
Washington State University
Pullman, WA 99164

or

Pre-Health Professions Advisor
921 S 8th Ave Stop 8007
Pocatello, ID 83209-8007

Idaho residency for the Washington-Idaho Regional Veterinary Medical Education Program will be certified by:

University of Idaho
Office of Registrar
875 Perimeter Dr MS4260
Moscow, Idaho 83844-4260

Oak Ridge Associated Universities

Since 1993, students and faculty of Idaho State University have benefited from Idaho State University's membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility operated by ORAU, undergraduates, graduates, postgraduates, and faculty may access a multitude of opportunities for study and research. Students may participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found on the ORISE website (<https://orise.orau.gov/stem/internships-fellowships-research-opportunities/index.html>).

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal

facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs, visit the ORAU website at <https://orise.ora.gov/>.

Western Interstate Commission for Higher Education (WICHE) Programs

Professional Student Exchange Program

The Professional Student Exchange Program (PSEP) of the Western Interstate - Commission for Higher Education (WICHE) enables students in the 13 western states (including North Dakota) to enroll in professional programs in other states when those programs are not available in their home states. Students accepted in the program pay resident tuition at public schools (or one-third the standard tuition at private schools) and their home states pay a support fee to the admitting school to help cover educational costs. The exchange area supported by Idaho includes optometry.

To be certified as eligible for this program, the student must write to the WICHE Certifying Officer in his/her state of legal residence for the program application form.

For further information, contact the Certifying Officer for Idaho, WICHE Student Exchange Program:

Office of the State Board of Education
Room 307, Len B. Jordan Building
650 West State Street, Room 307
Boise, ID 83720
Phone (208) 334-2270
Fax (208) 334-2632

Western Regional Graduate Program

The Western Regional Graduate Program (WRGP) of WICHE provides Idaho residents an opportunity to enroll at resident tuition rates in selected graduate programs in 13 states which are not available in Idaho. Doctor of Arts programs in biology, English, mathematics, and political science are available at Idaho State University to graduate students from participating WICHE states. An interdisciplinary Master of Science (M.S.) in Environmental Science and Management is also available, as is a Master of Science (M.S.) in Deaf Education. Students pay tuition at the resident rate of the receiving institution, rather than the normal nonresident rate. For further information, contact:

ISU Graduate School
921 S 8th Avenue Stop 8075
Pocatello, ID 83209
Phone (208) 282-2150

Western Undergraduate Exchange

The Western Undergraduate Exchange (WUE) is a WICHE program that allows undergraduate students residing in 12 participating states the opportunity to enroll in specified programs at Idaho State University at a reduced cost. Interested - students must apply for admission by the scholarship deadline date of February 15 in order to be eligible for WUE. Because participation is limited, final selections are made based on GPA, test scores, and other criteria.

Idaho State University fees for Approved WUE Students are equal to 150% of the Idaho State University full-time resident fee rate. Fees for College of

Technology sessions (early or late eight-week sessions within a semester) are half that amount.

Time accrued while receiving WUE reduced fees will NOT contribute towards the length of time required for establishing Idaho residency status.

WUE recipients will receive notification from:

ISU Scholarship Office
Room 327, Museum Building
(208) 282-3315
<http://www.isu.edu/scholar/>

Division of Continuing Education and Workforce Training

Gary Salazar, Director
Division of Continuing Education and Workforce Training (CEWT)
921 S. 8 th Ave., Stop 8380
Pocatello, ID 83209, 8380
(208) 282-1059
cetrain@isu.edu
<https://cetrain.isu.edu/>

Continuing Education

Continuing Education encompasses three areas within our division. First, some of our courses help businesses and educators grow and develop in their respective fields. Several bodies throughout campus offer programs awarding Continuing Education Units (CEUs), and we support them administratively with our central repository of course data. We also work with other ISU departments and outside entities for conference support and courses that award CEUs. For more information on professional development courses with CEUs, please contact Shirley Hockett at mcelshir@isu.edu.

We incorporate non-credit community outreach courses within Continuing Education. These courses engage and enrich our community through cultural, social, and economic development. Course topics, including culinary arts, dancing, arts and crafts, physical fitness, and other topics, meet the needs of our young and adult audiences.

Lifelong Learning is supported through the Continuing Education office. Idaho State University has supported Elderhostel and Road Scholar programs for Idahoans 50 years of age and older for several years. These programs feature member-directed, peer-led programs throughout the fall and spring semesters on a wide variety of topics. Members join for one semester at a time, which allows them to attend any of the offerings for that group in that given semester. Currently, there are three lifelong learning chapters we support: New Knowledge Adventures in Pocatello (<https://cetrain.isu.edu/enrollment/course/nka-membership>), Friends for Learning in Idaho Falls (<https://cetrain.isu.edu/enrollment/friends-learning>), and New Knowledge Adventures in Treasure Valley (<https://cetrain.isu.edu/enrollment/new-knowledge-adventures-treasure-valley>).

Workforce Training

Workforce Training encompasses four areas within our division. One focus is on entry-level health programs such as Certified Nursing Assistant (CNA), Emergency Medical Technician (EMT), Phlebotomy, and Dental Assisting with supplemental programs in AHA BLS Provider CPR and Assistance with Medications. These programs are offered multiple times a year and help individuals begin new careers or maintain certifications needed for positions they currently or will potentially hold.

Second, we have trade courses and apprenticeship programs, which help students gain entry into new careers or upgrade existing training. The trade courses include welding, motor operated valve (MOV) design basics, and flagging. Our core apprenticeship programs include Electrical, HVAC, and Plumbing, each providing four years of in-class related training while the students also work in their industry occupations. We also help develop tailored apprenticeship programs with companies in our region. Contact Paul Dickey at pdickey@isu.edu to learn more about setting up a new apprenticeship program to meet your needs.

Third, we offer courses meant to upgrade skills and boost resumes on business related topics. Each semester we have a core offering of courses on the Microsoft Office Suite. We also cover topics like QuickBooks, marketing, building a business, computer coding, cyber security, dealing with difficult people, and many others. These courses are taught by professionals with years of experience to help attendees get real-life examples of how to put these tools to use in their current positions or when seeking new career opportunities.

Last, our division also meets community needs through our customized training offerings. Our Business Consultant, Scott Stephens, works with local and regional businesses to create custom programs on almost any topic and can be provided during the day, evening, or on weekends. Contact Scott Stephens at stepscot@isu.edu to learn more about our customized training opportunities.

Conferencing Services

Continuing Education and Workforce Training also hosts and provides services to assist with conferences. Our conference services are customizable to meet University and local needs. We have experience with small groups as well as larger enrollments of 500+ in attendance. We help manage the logistics such as registration, budget management, presenter coordination, space reservations, catering, and much more. Contact Shirley Hockett at mcelshir@isu.edu to learn more about our conferencing services.

For all other program information and current course offerings visit <https://cetrain.isu.edu/>.

Idaho Residency Requirements

Idaho Residency Requirements for Fee Payment

In determining residency for fee assessment purposes, Idaho State University is governed by Idaho Statute 33-3717B <https://legislature.idaho.gov/statutesrules/idstat/Title33/T33CH37/SECT33-3717B/> and Idaho State Board of Education Rules. <https://adminrules.idaho.gov/rules/current/08/080104.pdf>

Initial Determination of Residency Status

A student's residency status is determined during the admissions process based upon the information provided on ISU's admission application.

Changing Residency Status

If a student would like to request a change in residency status, the first step is to complete the Idaho Residency Determination Worksheet (IRDW). The IRDW can be downloaded from: <https://boardofed.idaho.gov/resources/residency-determination-worksheet/>

If the student is requesting that ISU certify the student's Idaho residency for application to the University of Utah Medical School, the process is the same. However, please clearly note across the top of the IRDW, "For University of Utah Medical School."

Please note that when completing the IRDW, the student's signature must be notarized (this service is available in the Office of the Registrar, as well as ISU satellite locations and most local banks/credit unions). The IRDW and supporting documentation can then be personally delivered, mailed, or emailed to the Office of the Registrar:

921 S. 8th Ave
Mail Stop 8196
Pocatello, ID 83209-8196
Phone: (208) 282-2661
Email: Residency Officer (irdw@isu.edu)

Non-Resident Tuition Waivers

There are Non-Resident Tuition Waivers available to undergraduate students from the Scholarship Office. Waivers are awarded based on current GPA, state of residency, and/or program of study. Contact the Scholarship Office at (208) 282-3315 for additional information. For information regarding Non-Resident Tuition Waivers for graduate students, please contact the Graduate School at (208) 282-2150.

Additional Information

For additional residency information, please contact the Office of the Registrar at (208) 282-2661 or Residency Officer (irdw@isu.edu). Residency information may also be found on the Office of the Registrar website at <https://isu.edu/registrar/residency/>.

Undergraduate Programs

College of Arts and Letters Programs

Program Description	Type	Degree
General Studies, B.A. (p. 127)	Degree	B.A.
General Studies, A.A. (p. 127)	Degree	A.A.
English, B.A., Literary Option (p. 121)	Degree	B.A.
English, B.A., Professional Writing Option (p. 121)	Degree	B.A.
English, B.A., Creative Writing Option (p. 120)	Degree	B.A.
Philosophy, B.A., Traditional option (p. 123)	Degree	B.A.
Philosophy B.A., Pre-law option (p. 123)	Degree	B.A.
Folklore, Minor (p. 125)	minor	
English, Minor - Literature (p. 124)	Minor	
English, Minor - Professional Writing (p. 124)	Minor	
English, Minor - Creative Writing (p. 124)	Minor	
Philosophy, Minor (p. 125)	Minor	
Philosophy and Religion, Minor (p. 125)	Minor	
Ethics, Minor (p. 125)	Minor	
Biomedical Ethics, Academic Certificate (p. 125)	Certificate	
Anthropology, B.A. (p. 96)	Degree	B.A.
Anthropology, Minor (p. 97)	Minor	
American Indian Studies, Minor (p. 97)	Minor	
Latino Studies, Minor (p. 98)	Minor	
Linguistics, Minor (p. 98)	Minor	
Shoshoni, A.A. (p. 96)	Degree	A.A.
Medical Anthropology, Academic Certificate (p. 98)	Certificate	
Art, B.A. (p. 101)	Degree	B.A.
Art, B.F.A. (p. 101)	Degree	B.F.A.
Art History, Minor (p. 102)	Minor	
Studio, Minor (p. 102)	Minor	
Communication, B.A., Corporate Communication Emphasis, Advertising Track (p. 106)	Degree	B.A.
Communication, B.A., Corporate Communication Emphasis, Leadership Track (p. 107)	Degree	B.A.
Communication, B.A., Corporate Communication Emphasis, Public Relations Track (p. 108)	Degree	B.A.
Communication, B.A., Multiplatform Journalism Emphasis (p. 109)	Degree	B.A.
Communication, B.A., Rhetoric and Media Affairs Emphasis (p. 109)	Degree	B.A.
Communication, B.A., Visual Communication Emphasis, Design Track (p. 109)	Degree	B.A.
Communication, B.A., Visual Communication Emphasis, Photo Media Track (p. 111)	Degree	B.A.

Communication, B.A., Visual Communication Emphasis, Video Track (p. 113)	Degree	B.A.
Communication, Minor (p. 114)	Minor	
Journalism, Minor (p. 114)	Minor	
Public Relations/Advertising, Minor (p. 114)	Minor	
Visual Media, Minor (p. 114)	Minor	
Global Studies, B.A., Political and Economic Development Concentration (p. 134)	Degree	B.A.
Global Studies, B.A., Language, Literature, and Culture Concentration (p. 132)	Degree	B.A.
Global Studies, B.A., The United States and World Affairs Concentration (p. 135)	Degree	B.A.
Global Studies, Minor (p. 137)	Minor	
Spanish, B.A., Option 1 (p. 137)	Degree	B.A.
Spanish, B.A., Option 2 (p. 138)	Degree	B.A.
Spanish for the Health Professions, B.A. (p. 139)	Degree	B.A.
French, Minor (p. 140)	Minor	
German, Minor (p. 140)	Minor	
Spanish, Minor (p. 141)	Minor	
Japanese, Minor (p. 140)	Minor	
French, Basic Certificate (p. 141)	Certificate	
German, Basic Certificate (p. 141)	Certificate	
Japanese, Basic Certificate (p. 141)	Certificate	
French, Advanced Certificate (p. 142)	Certificate	
German, Advanced Certificate (p. 142)	Certificate	
Spanish, Advanced Certificate (p. 142)	Certificate	
Japanese, Advanced Certificate (p. 142)	Certificate	
Political Science, B.A./B.S. (p. 162)	Degree	B.A./B.S.
Political Science, Minor (p. 162)	Minor	
Psychology, B.A./B.S. (p. 165)	Degree	B.A./B.S.
Psychology, Minor (p. 165)	Minor	
Sociology, B.A. (p. 168)	Degree	B.A.
Sociology, Criminology Concentration, B.A. (p. 168)	Degree	B.A.
Sociology, Minor (p. 171)	Minor	
Social Work, B.A. (p. 169)	Degree	B.A.
Criminology, A.A. (p. 170)	Degree	A.A.
Gender and Sexuality Studies, Minor (p. 171)	Minor	
History, B.A. (p. 145)	Degree	B.A.
History, Minor (p. 146)	Minor	
Military Science, Minor (p. 150)	Minor	
Music, B.M. (p. 154)	Degree	B.M.
Music, B.A./B.S. (p. 154)	Degree	B.A./B.S.
Music Education, B.M.E. (p. 155)	Degree	B.M.E.
Music, Minor (p. 156)	Minor	
Theatre, B.A. (p. 158)	Degree	B.A.
Theatre, Minor (p. 159)	Minor	
Dance: Choreography and Performance, B.A. (p. 159)	Degree	B.A.

Dance, Minor (p. 160)	Minor
Film Studies, Minor (p. 125)	Minor

College of Business Programs

Program Description	Type	Degree
Accounting, B.B.A. (p. 176)	Degree	B.B.A.
Business Informatics, B.B.A. (p. 195)	Degree	B.B.A.
Economics, B.B.A. (p. 180)	Degree	B.B.A.
Finance, B.B.A. (p. 184)	Degree	B.B.A.
General Business, B.B.A. (p. 188)	Degree	B.B.A.
Health Informatics, B.B.A. (p. 196)	Degree	B.B.A.
Management, B.B.A. (p. 201)	Degree	B.B.A.
Marketing, B.B.A. (p. 207)	Degree	B.B.A.
Economics, B.S. (p. 182)	Degree	B.S.
Healthcare Administration, B.S. (p. 193)	Degree	B.S.
Business, A.S. (p. 190)	Degree	A.S.
Informatics, Academic Certificate (p. 199)	Certificate	
Accounting, B.B.A. - Operations Management Emphasis (p. 177)	Degree	B.B.A.
Business Informatics, B.B.A. - Operations Management Emphasis (p. 196)	Degree	B.B.A.
Economics, B.B.A. - Operations Management Emphasis (p. 181)	Degree	B.B.A.
Finance, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 185)	Degree	B.B.A.
Finance, B.B.A. - Operations Management Emphasis (p. 186)	Degree	B.B.A.
General Business, B.B.A. - Operations Management Emphasis (p. 189)	Degree	B.B.A.
Health Informatics, B.B.A. - Operations Management Emphasis (p. 197)	Degree	B.B.A.
Management, B.B.A. - Human Resources Management Emphasis (p. 203)	Degree	B.B.A.
Management, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 202)	Degree	B.B.A.
Management, B.B.A. - Operations Management Emphasis (p. 204)	Degree	B.B.A.
Marketing, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 208)	Degree	B.B.A.
Marketing, B.B.A. - Operations Management Emphasis (p. 209)	Degree	B.B.A.
Native American Business Administration, Emphasis (p. 191)	Emphasis	
Business, Minor (p. 191)	Minor	
Business Administration, Minor (p. 191)	Minor	
Economics, Minor (p. 182)	Minor	
Informatics, Minor (p. 198)	Minor	
Marketing, Minor (p. 210)	Minor	

College of Education Programs

Programs Other Than Elementary or Secondary Education

Program Description	Type	Degree
Blended Early Childhood Education, B.A. (p. 222)	Degree	B.A.

Career and Technical Education, Certificate (p. 264)	Certificate	
Coaching, Minor (p. 258)	Minor	
Consumer Economics, Minor (Non-Certification) (p. 223)	Minor	
Deaf Education, Minor (Non-Certification) (p. 250)	Minor	
Exercise Science, Emphasis (for the B.A./B.S. in PE) (p. 253)	Emphasis	
Family and Consumer Sciences, Minor (Non-Certification) (p. 223)	Minor	
General Family and Consumer Sciences, B.S. (Non-Certification) (p. 222)	Minor	
Music Education, B.M.E. (K-12 Endorsement) (p. 155)	Degree	B.M.E.
Organizational Leadership, Baccalaureate Certificate (p. 264)	Certificate	
Outdoor Education, Emphasis (for the B.A./B.S. in PE) (p. 254)	Emphasis	
Outdoor Education, Minor (p. 259)	Minor	
Physical Education, B.A./B.S. (p. 253)	Degree	B.A./B.S.
Physical Education Teaching (K-12), Emphasis (for the B.A./B.S. in PE) (p. 256)	Emphasis	
Special Education, B.A./B.S. (K-12 Endorsement) (p. 250)	Degree	B.A./B.S.
Sport Management, Emphasis (for the B.A./B.S. in PE) (p. 257)	Emphasis	
Sport Management, Minor (p. 260)	Minor	
Training and Development, Certificate (p. 264)	Certificate	
Workplace Training and Leadership, B.S. (p. 262)	Degree	B.S.
Workplace Training and Leadership - CTE Option, B.S. (p. 263)	Degree	B.S.
Workplace Training and Leadership, Minor (p. 263)	Minor	

Elementary Education Programs

Program Description	Type	Degree
Biological Sciences, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
Earth Sciences/Geology, 20 Credit Endorsement (p. 238)	20 Credit Endorsement	
Elementary Education, B.A./B.S. (p. 225)	Degree	B.A./B.S.
English, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
English as a Second Language (ESL), 20 Credit Endorsement (p. 237)	20 Credit Endorsement	
History, 20 Credit Endorsement (p. 241)	20 Credit Endorsement	
Mathematics, 20 Credit Endorsement (p. 243)	20 Credit Endorsement	
Special Education, 20 Credit Endorsement (p. 227)	20 Credit Endorsement	

Secondary Education Programs

Program Description	Type	Degree
American Government, 20 Credit Endorsement (p. 231)	20 Credit Endorsement	
American Government, 30 Credit Endorsement (p. 231)	30 Credit Endorsement	
Art, 45 Credit Endorsement (p. 231)	45 Credit Endorsement	
Biological Sciences, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
Biological Sciences, 30 Credit Endorsement (p. 231)	30 Credit Endorsement	
Biological Sciences, 45 Credit Endorsement (p. 232)	45 Credit Endorsement	
Business Education, 20 Credit Endorsement (p. 232)	20 Credit Endorsement	
Business Education, 30 Credit Endorsement (p. 232)	30 Credit Endorsement	
Business Technology, 45 Credit Endorsement (p. 233)	45 Credit Endorsement	
Chemistry, 20 Credit Endorsement (p. 233)	20 Credit Endorsement	
Chemistry, 30 Credit Endorsement (p. 234)	30 Credit Endorsement	
Chemistry, 45 Credit Endorsement (p. 234)	45 Credit Endorsement	
Communication, 20 Credit Endorsement (p. 234)	20 Credit Endorsement	
Communication, 30 Credit Endorsement (p. 234)	30 Credit Endorsement	
Communication, 45 Credit Endorsement (p. 234)	45 Credit Endorsement	
Drama, 20 Credit Endorsement (p. 235)	20 Credit Endorsement	
Drama, 30 Credit Endorsement (p. 235)	30 Credit Endorsement	
Drama, 45 Credit Endorsement (p. 235)	45 Credit Endorsement	
Economics, 20 Credit Endorsement (p. 236)	20 Credit Endorsement	
Economics, 30 Credit Endorsement (p. 236)	30 Credit Endorsement	
English, 30 Credit Endorsement (p. 236)	30 Credit Endorsement	
English, 45 Credit Endorsement (p. 236)	45 Credit Endorsement	
English as a Second Language (ESL), 20 Credit Endorsement (p. 237)	20 Credit Endorsement	
Family and Consumer Sciences, 45 Credit Endorsement (p. 224)	45 Credit Endorsement	
French, 20 Credit Endorsement (p. 238)	20 Credit Endorsement	
French, 30 Credit Endorsement (p. 238)	30 Credit Endorsement	
Geology, 20 Credit Endorsement (p. 238)	20 Credit Endorsement	

Geology, 30 Credit Endorsement (p. 239)	30 Credit Endorsement	
Geology, 45 Credit Endorsement (p. 239)	45 Credit Endorsement	
German, 20 Credit Endorsement (p. 239)	20 Credit Endorsement	
German, 30 Credit Endorsement (p. 240)	30 Credit Endorsement	
Health Education Teaching, 20 Credit Endorsement (p. 240)	20 Credit Endorsement	
Health Education Teaching, 30 Credit Endorsement (p. 240)	30 Credit Endorsement	
Health Education, 45 Credit Endorsement (p. 240)	45 Credit Endorsement	
History, 20 Credit Endorsement (p. 241)	20 Credit Endorsement	
History, 30 Credit Endorsement (p. 242)	30 Credit Endorsement	
Journalism, 20 Credit Endorsement (p. 243)	20 Credit Endorsement	
Mathematics, 20 Credit Endorsement (p. 243)	20 Credit Endorsement	
Mathematics, 30 Credit Endorsement (p. 243)	30 Credit Endorsement	
Mathematics, 45 Credit Endorsement (p. 243)	45 Credit Endorsement	
Physical Education, 45 Credit Endorsement (p. 243)	45 Credit Endorsement	
Physics, 20 Credit Endorsement (p. 244)	20 Credit Endorsement	
Physics, 30 Credit Endorsement (p. 244)	30 Credit Endorsement	
Secondary Education, B.A./B.S. (p. 230)	Degree	B.A./B.S.
Social Studies, 30 Credit Endorsement (p. 244)	30 Credit Endorsement	
Spanish, 20 Credit Endorsement (p. 245)	20 Credit Endorsement	
Spanish, 30 Credit Endorsement (p. 245)	30 Credit Endorsement	

College of Health Professions Programs

Program Description	Type	Degree
Dental Hygiene, B.S. (p. 286)	Degree	B.S.
Dietetics, B.S. (p. 307)	Degree	B.S.
Dietetic Internship (DI), Post-Baccalaureate Certificate (p. 308)	Certificate	
Emergency Management, A.S. (p. 291)	Degree	A.S.
Emergency Management, B.S. (p. 291)	Degree	B.S.
Emergency Management, Minor (p. 292)	Minor	
Fire Services Administration, A.S. (p. 294)	Degree	A.S.
Fire Services Administration, B.S. (p. 294)	Degree	B.S.
Paramedic Science, A.S. (p. 299)	Degree	A.S.
Paramedic Science, Certificate (p. 299)	Certificate	
Community Paramedic, Certificate (p. 299)	Certificate	

Health Science, B.S. EMS Concentration (p. 273)	Degree	B.S.
Health Science, B.S. Health Science Concentration (p. 275)	Degree	B.S.
Medical Lab Science, B.S. (p. 303)	Degree	B.S.
Community and Public Health, B.A. or B.S., Community Health Concentration (p. 279)	Degree	B.A. or B.S.
Community and Public Health, B.A. or B.S., Addiction Studies Concentration (p. 278)	Degree	B.A. or B.S.
Community and Public Health, B.A. or B.S., School Health Concentration (p. 280)	Degree	B.A. or B.S.
Community and Public Health, Teaching Minor (p. 281)	Minor	
Community and Public Health, Non-Teaching Minor (p. 281)	Minor	
Idaho Dental Education Program (p. 289)	Other	
Interprofessional Geriatric Certificate (p. 276)	Certificate	
Radiographic Science, B.S. (p. 312)	Degree	B.S.
Diagnostic Medical Sonography, Certificate (p. 313)	Certificate	

College of Nursing Programs

Program Description	Type	Degree
Nursing, B.S. - Traditional (p. 320)	Degree	B.S.
Nursing, B.S. - Accelerated (p. 317)	Degree	B.S.
Nursing, B.S. - BS completion (p. 318)	Degree	B.S.

College of Pharmacy Programs

Program Description	Type	Degree
Pharmacy, Pharm.D (p. 327)	Degree	Pharm.D.
Joint Doctor of Pharmacy and Master of Business Administration (p. 330)	Degree	Pharm.D., M.B.A.
Pharmaceutical Sciences, Minor (p. 330)	Minor	

College of Rehabilitation and Communication Sciences Programs

Program Description	Type	Degree
Communication Sciences and Disorders, Pre-Speech-Language Pathology, B.S. (p. 336)	Degree	B.S.
Communication Sciences and Disorders, Pre-Audiology, B.S. (p. 337)	Degree	B.S.
Sign Language Interpreting, B.S. (p. 338)	Degree	B.S.
Sign Language Studies, A.S. (p. 338)	Degree	A.S.
Sign Language Studies, Minor (p. 339)	Minor	
Health Science, B.S. with Concentration in Pre-Occupational Therapy, Accelerated (p. 343)	Degree	B.S.
Health Science, B.S. with Concentration in Pre-Occupational Therapy (p. 344)	Degree	B.S.

College of Science and Engineering Programs

Program Description	Type	Degree
Biology, B.A. with Biology Education Concentration (p. 350)	Degree	B.A.

Biology, B.A. with Natural History Concentration (p. 351)	Degree	B.A.
Biology, B.S. with Biomedical Science Concentration (p. 351)	Degree	B.S.
Biology, B.S. with Ecology and Conservation Biology Concentration (p. 354)	Degree	B.S.
Biology, B.S. with Integrative Organismal Biology (p. 355)	Degree	B.S.
Biochemistry, B.S. (p. 358)	Degree	B.S.
Microbiology, B.S. (p. 357)	Degree	B.S.
Biology, Minor (p. 359)	Minor	
Microbiology, Minor (p. 360)	Minor	
Chemistry, B.A. (p. 363)	Degree	B.A.
Chemistry, B.S. (p. 363)	Degree	B.S.
Chemistry, Combined B.S./M.S. (p. 365)	Degree	B.S./M.S.
Chemistry, Minor (p. 366)	Minor	
Civil Engineering, B.S. (p. 375)	Degree	B.S.
Computer Science, B.S. (p. 371)	Degree	B.S.
Computer Science, Minor (p. 371)	Minor	
Earth and Environmental Systems, B.A. Environmental Systems Track (p. 382)	Degree	B.A.
Geology, B.A. (p. 381)	Degree	B.A.
Earth and Environmental Systems, B.S. Environmental Systems Track (p. 383)	Degree	B.S.
Earth and Environmental Systems, B.S. Geospatial Systems Track (p. 384)	Degree	B.S.
Geology, B.S. with Engineering Geology Emphasis (p. 381)	Degree	B.S.
Geology, B.S. (p. 381)	Degree	B.S.
Geology, Minor (p. 385)	Minor	
GeoTechnology, Minor (p. 385)	Minor	
Mathematics, A.S. (p. 389)	Degree	A.S.
Mathematics, B.S. (p. 388)	Degree	B.S.
Statistics, B.S. (p. 388)	Degree	B.S.
Applied Mathematics, Minor (p. 389)	Minor	
Mathematics, Minor (p. 389)	Minor	
Statistics, Minor (p. 390)	Minor	
Mechanical Engineering, B.S. (p. 378)	Degree	B.S.
Health Physics, A.S. (p. 398)	Degree	A.S.
Physics, A.S. (p. 395)	Degree	A.S.
Physics, B.A. (p. 395)	Degree	B.A.
Electrical Engineering Technology, B.S. (p. 399)	Degree	B.S.
Electrical Engineering, B.S. (p. 399)	Degree	B.S.
Health Physics, B.S. (p. 397)	Degree	B.S.
Nuclear Engineering, B.S. (p. 397)	Degree	B.S.
Physics, B.S. (p. 395)	Degree	B.S.
Physics, Minor (p. 396)	Minor	

College of Technology Programs

Program Description	Type	Degree
Advanced Automation and Manufacturing, A.A.S. (p. 409)	Degree	A.A.S.

Advanced Automation and Manufacturing, I.T.C. (p. 409)	Certificate		Early Childhood Care and Education, I.T.C. (p. 441)	Certificate	
Airframe and Power Plant, A.A.S. (p. 411)	Degree	A.A.S.	Energy Systems Electrical Engineering Technology, A.A.S. (p. 446)	Degree	A.A.S.
Power Plant, A.T.C. (p. 411)	Certificate		Energy Systems Instrumentation Engineering Technology, A.A.S. (p. 446)	Degree	A.A.S.
Airframe, I.T.C. (p. 411)	Certificate		Energy Systems Mechanical Engineering Technology, A.A.S. (p. 447)	Degree	A.A.S.
Electrical Apprenticeship, A.A.S. (p. 414)	Degree	A.A.S.	Energy Systems Nuclear Operations Technology, A.A.S. (p. 447)	Degree	A.A.S.
Plumbing Apprenticeship, A.A.S. (p. 414)	Degree	A.A.S.	Energy Systems Wind Engineering Technology, A.A.S. (INACTIVE) (p. 448)	Degree	A.A.S.
Registered Nursing, A.S. (p. 416)	Degree	A.S.	Industrial Controls, A.A.S. (p. 449)	Degree	A.A.S.
Automotive Collision Repair and Refinishing, A.A.S. (p. 418)	Degree	A.A.S.	Industrial Cybersecurity Engineering Technology, A.A.S. (p. 450)	Degree	A.A.S.
Automotive Repair and Refinishing, A.T.C. (p. 418)	Certificate		Industrial Cybersecurity Engineering Technology, I.T.C. (p. 450)	Certificate	
Automotive Collision Repair, I.T.C. (p. 418)	Certificate		Instrumentation and Automation Assistant, B.T.C. (p. 452)	Certificate	
Automotive Refinishing, I.T.C. (p. 419)	Certificate		Energy Systems Renewable Energy Technology, I.T.C. (INACTIVE) (p. 452)	Certificate	
Automotive Technology, A.A.S. (p. 421)	Degree	A.A.S.	Energy Systems Technology, I.T.C. (p. 451)	Certificate	
Automotive Technology, A.T.C. (p. 421)	Certificate		Health Information Technology, A.A.S. (p. 455)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.	Medical Coding, I.T.C. (p. 455)	Certificate	
Accounting Technology, A.A.S. (p. 423)	Degree	A.A.S.	Health Science, B.S. with Concentration in Health Occupations (http://coursecat.isu.edu/undergraduate/technology/healthoccupations/bs-hs-health-occ-conc)	Degree	B.S.
Administrative Management Technology, A.A.S. (p. 423)	Degree	A.A.S.	Information Technology Systems, A.A.S. (p. 460)	Degree	A.A.S.
Small Business Technology, A.A.S. (p. 423)	Degree	A.A.S.	Computer Network Technician, A.T.C. (p. 460)	Certificate	
Business Technology, B.T.C. (p. 424)	Certificate		Computer Network Technician, B.T.C. (p. 460)	Certificate	
Small Business Technology, B.T.C. (p. 425)	Certificate		Law Enforcement, A.A.S. (p. 462)	Degree	A.A.S.
Accounting Technology, I.T.C. (p. 424)	Certificate		Law Enforcement, B.T.C. (p. 462)	Certificate	
Administrative Technology, I.T.C. (p. 424)	Certificate		Law Enforcement, I.T.C. (p. 462)	Certificate	
Civil Engineering Technology, A.A.S. (p. 427)	Degree	A.A.S.	Massage Therapy, A.A.S. (p. 464)	Degree	A.A.S.
Civil Engineering Technician, A.T.C. (p. 427)	Certificate		Massage Therapy, I.T.C. (p. 464)	Certificate	
Materials Testing and Specification, B.T.C. (p. 428)	Certificate		Medical Assisting, A.A.S. (p. 466)	Degree	A.A.S.
Computer Aided Design Drafting Technology, A.A.S. (p. 430)	Degree	A.A.S.	Occupational Therapy Assistant, A.A.S. (p. 469)	Degree	A.A.S.
Computer Aided Design Drafting, A.T.C. (p. 430)	Certificate		Paralegal Studies, A.A.S. (p. 471)	Degree	A.A.S.
Architectural Drafting, I.T.C. (p. 430)	Certificate		Paralegal Studies, B.A.S. (p. 406)	Degree	B.A.S.
Mechanical Drafting, I.T.C. (p. 431)	Certificate		Pharmacy Technology, A.T.C. (p. 473)	Certificate	
Computerized Machining Technology, A.A.S. (p. 433)	Degree	A.A.S.	Pharmacy Technology, B.T.C. (p. 473)	Certificate	
CNC Operator, A.T.C. (p. 433)	Certificate		Physical Therapy Assistant, A.A.S. (p. 475)	Degree	A.A.S.
Machining Technology, A.T.C. (p. 433)	Certificate		Practical Nursing, I.T.C., Traditional Option (http://coursecat.isu.edu/undergraduate/technology/practicalnursing/itc-practical-nursing-traditional)	Certificate	
CNC Programmer, B.T.C. (p. 434)	Certificate		Practical Nursing, I.T.C., Vet to Nurse Option (p. 478)	Certificate	
Cosmetology, A.T.C. (p. 436)	Certificate		Respiratory Therapy, A.S. (p. 481)	Degree	A.S.
Nail Technology, B.T.C. (p. 436)	Certificate				
Diesel Technology, A.A.S. (p. 438)	Degree	A.A.S.			
On-Site Power Generation Technology, A.A.S. (p. 438)	Degree	A.A.S.			
Diesel Technology, A.T.C. (p. 438)	Certificate				
On-Site Power Generation Technology, A.T.C. (p. 439)	Certificate				
Early Childhood Care and Education, A.A.S. (p. 441)	Degree	A.A.S.			
Early Childhood Care and Education, B.T.C. (p. 442)	Certificate				

Robotics and Communications Systems Engineering Technology, A.A.S. (p. 484)	Degree	A.A.S.
Laser/Electro-Optics Technology, A.T.C. (p. 485)	Certificate	
Robotics and Communications Systems Engineering Technology, A.T.C. (p. 485)	Certificate	
Robotics Engineering Technology, B.A.S. (p. 407)	Degree	B.A.S.
Surveying and Geomatics Engineering Technology, B.S. (p. 487)	Degree	B.S.
Unmanned Aerial Systems, A.A.S. (p. 489)	Degree	A.A.S.
Unmanned Aerial Systems, B.T.C. (p. 489)	Certificate	
Unmanned Aerial Systems, I.T.C. (p. 489)	Certificate	
Welder-Fitter, A.A.S. (p. 491)	Degree	A.A.S.
Welder-Fitter, A.T.C. (p. 491)	Certificate	
Welder General, I.T.C. (p. 491)	Certificate	

Undergraduate Admissions

Before students may take classes at Idaho State University, they must first be admitted as either a degree seeking or non-degree seeking student. To apply for degree seeking admission, a person must submit a completed application for admission, a \$50 non-refundable application fee, official high school/college transcripts, and either ACT, SAT, and/or ALEKS test scores to the ISU Admissions Office:

Office of Admissions
921 S 8th Ave. Stop 8270
Pocatello, ID 83209-8270
(208) 282-2475
<http://www.isu.edu/future/>
email:admiss@isu.edu

Admission Process

The following information applies to undergraduate students applying for admission to academic programs. For students seeking information regarding admission to Career and Technical Education (CTE) programs, contact the College of Technology (p. 401). Graduate students should refer to the Graduate Catalog (<http://coursecat.isu.edu/graduate>). Doctor of Pharmacy students should refer to the College of Pharmacy (<https://isu.edu/pharmacy/prospective-students>). International Students should refer to the International Programs Office (<https://www.isu.edu/ipo>).

Idaho State University welcomes all students of good character who provide evidence of suitable preparation for work at the college level. 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 process. Future students are welcome to contact the Office of Admissions for information regarding the application process, or they may visit our web page at www.isu.edu/future.

The Office of Admissions notifies students of admission decisions within 14 days of receiving their completed application. Decisions may be delayed if documentation is incomplete upon submission. Students may be admitted with an in-progress transcript. However, the university reserves the right to restrict registration for the term following admission if all required documents, including final transcripts, are not submitted.

Failure to list and submit transcripts from all schools attended, or submission of inaccurate information, is considered fraud and is cause for refusal of admission or dismissal from Idaho State University. All required documentation must be received prior to admission.

When to Apply

To allow appropriate time for evaluation and admission decisions, all applications and documentation should be submitted to the Office of Admission by the application deadline (see below). Applications may be accepted after this deadline, but a \$20 late fee may be assessed and an admission decision cannot be guaranteed prior to the beginning of the ensuing semester.

Semester	Freshmen Applicants	Transfer Applicants	International Applicants
Fall	August 1	August 1	March 1
Spring	December 1	December 1	October 1
Summer	Contact Admissions	Rolling	Applications not accepted

Definitions

Admission Decision Definitions

Students are admitted to Idaho State University with a status of Assured Admission or Conditional Admission.

1. **Assured Admission** - The applicant has satisfied the full complement of admission requirements.
2. **Conditional Admission** - The applicant has satisfied most of the admission requirements. Conditional Admission is not a probationary status. Students conditionally accepted are considered for scholarships and have the rights and privileges granted to all students.

Idaho State University has different application processes and requirements for the following groups of students:

1. **Freshmen** - Students who have not enrolled in any college or university after graduating from high school (or receiving a GED).
 - a. Note: Students who have been enrolled in an early college or dual/concurrent enrollment program while still classified as high school students are considered freshmen, as long as they do not enroll in a post-secondary institution before attending Idaho State University.
2. **Transfer Students** - Students who have one (1) or more attempted and/or in-progress credit at any college or university after graduating from high school (or receiving a GED) prior to enrolling at Idaho State University. Students who have fewer than 14 credits are classified as a New Transfer student.
3. **Career and Technical** - Students who plan on enrolling in a career and technical program through the College of Technology. For students seeking information regarding admission to career and technical programs, contact the College of Technology (p. 401).
4. **Former** - Students who have been admitted and enrolled at ISU previously but have not enrolled in classes for the past 8 semesters (including summers).
5. **Post Baccalaureate** - Students who have a bachelor's degree or are in the process of completing their bachelor's degree. Students can be admitted with an in-progress transcript with the bachelor's degree not posted; the applicant is required to provide a final transcript with the degree posted.
6. **Non-Degree** - Students who are attending ISU without intention of seeking a degree. These students are limited to 7 credits a semester, do not qualify for financial aid, and can only complete 32 credits before applying as a degree-seeking student or signing a non-degree waiver.
7. **Early College** - Academically qualified high school students may enroll at Idaho State University through the Early College Program. High school students meeting the necessary requirements will be allowed to enroll as non-degree seeking students.
8. **International** - Refer to International Programs Office processes.

Citizenship status clarifications:

1. **Dual Citizen** - Students who have citizenship in the United States and another country are required to meet the admission requirements for

their student application type. Applicants need to submit appropriate documentation demonstrating their dual citizenship. If they were educated in a foreign country, they will also be required to provide proof of English proficiency (see English Proficiency Requirements (p. 54)).

2. **DACA (Deferred Action for Childhood Arrivals)** - Undocumented applicants who come to the U.S. as children. Applicants need to submit appropriate documentation demonstrating their DACA status.

Official Transcripts:

Official transcripts must come from the issuing institution. Transcripts by fax are permitted only when sent within the state of Idaho (from Idaho high schools or colleges.) Transcripts may also be accepted as official if sent through secure e-transcript services or mailed in a sealed envelope directly from the issuing institution. Transcripts will not be accepted directly from a student.

New Freshmen

Application Steps for New Freshmen

1. Apply for Admission – the form is online at <http://www.isu.edu/apply/>, and pay the \$50 non-refundable application fee.
2. Submit official ACT or SAT scores (students 21 years or older are exempt from submitting ACT/SAT scores).
3. Submit an official high school transcript or GED. Official transcripts must be mailed in a sealed envelope to Idaho State University by the awarding institution. Official transcripts by fax are permitted only when sent within the state of Idaho (from Idaho high schools or colleges). Transcripts may also be accepted as official if sent through secure e-transcript services directly from the issuing institution. Transcripts will not be accepted directly from a student.
4. Submit official transcripts to ISU for any non-ISU college credits for dual enrollment.
5. After high school graduation, an official copy of the final high school transcript must be sent to Idaho State University by the awarding institution.

High School Graduates

High School graduates who will be under the age of 17 at the start of the term they've applied for are required to petition for admission. Students from Idaho will be evaluated for completion of the Idaho State Board of Education core upon receipt of a final high school transcript with the graduation date posted.

Idaho State Board of Education College Entrance Core Requirements

Department	# Semesters
English (Composition, Literature)	8
Mathematics (Applied Math I, Applied Math II, Algebra I, Algebra II, Geometry, Analytic Geometry, Calculus, Statistics, Trigonometry; at least 4 semesters must be taken during grades 10 through 12)	6
Natural Science (Anatomy, Biology, Chemistry, Earth Science, Geology, Physiology, Physical Science, Physics, Zoology. Selected applied science courses may count for up to 2 semesters. At least 2 semesters must be for courses which include a laboratory science experience.)	6

Social Science (American Government, Geography, U.S. History, World History. Economics, Philosophy, Psychology, Sociology) 5

Humanities/Foreign Language (Literature, History, Philosophy, Foreign Language, and related study of 2 or more of the traditional humanities disciplines) 2

Other college prep (Speech, Studio/Performing Arts (Art, Dance, Drama, Music), additional Foreign Language. Up to 2 semesters of approved vocational courses may apply; consult your high school counselor) 3

Assured Admission Requirements:

1. Completed New Undergraduate Application and the \$50 nonrefundable application fee has been paid;
2. A 2.50 or better cumulative grade point average;
3. The completion of the Idaho State Board of Education high school core requirements;
4. A math minimum test score of 18 on the ACT or a 520 on the Redesigned SAT Math Section; and
5. An English minimum test score of 18 on the ACT or a 25 on the Redesigned SAT Reading Test.
6. If the SAT was taken prior to April 2016, test score requirements are 490 on SAT Math and 460 on SAT Critical Reading.

Applicants who meet the above criteria for GPA and test scores but lack up to two core high school classes will be granted Conditional Admission.

Conditional Admission Requirements:

1. Completed Undergraduate Application and the \$50 nonrefundable application fee has been paid;
2. A 2.25 or better cumulative grade point average;
3. A math minimum test score of 12 on the ACT or a 310 on the Redesigned SAT Math Section; and
4. An English minimum test score of 12 on the ACT or a 20 on the Redesigned SAT Reading Test.
5. If the SAT was taken prior to April 2016, test score requirements are 270 or higher on SAT Math and 360 or higher on SAT Critical Reading.

Home School Students

Assured Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. Home school transcript;
3. Meets one of the following:
 - a. Passing score on the GED (see GED Applicants requirements below);
 - b. If under 21, will need both ACT and SAT test scores with a home school transcript; or
 - c. Submits accredited high school transcript with GPA of at least a 2.50.
4. Received test scores meeting the following:
 - a. Composite score of at least a 20 on the ACT or a 1030 Total score on the Redesigned SAT;
 - b. Math score of at least 18 on ACT a 520 on the Redesigned SAT Math Section; and
 - c. English score of at least 18 on the ACT or a 25 on the Redesigned SAT Reading Test.

- d. If the SAT was taken prior to April 2016, test score requirements are 490 on SAT Math and 460 on SAT Critical Reading.

- d. If the SAT was taken prior to April 2016, test score requirements are 270 or higher on SAT Math and 360 or higher on SAT Critical Reading.

Conditional Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. Home school transcript;
3. Meets one of the following:
 - a. Passing score on the GED (see GED Applicants requirements below);
 - b. If under 21, will need both ACT and SAT test scores; or
 - c. Submits accredited high school transcript with a GPA of at least a 2.25.
4. Received test scores meeting the following:
 - a. Composite score of at least 14 on the ACT or a 730 total score on the Redesigned SAT;
 - b. Math score of at least 12 on the ACT or 310 on the Redesigned SAT Math Section Test;
 - c. English score of at least 12 on the ACT or 20 on the Redesigned SAT Reading Test; and
 - d. **If the SAT was taken prior to April 2016, test score requirements are 270 or higher on SAT Math and 360 or higher on SAT Critical Reading.**

GED Applicants

GED Applicants Younger than 18 Years of Age - GED students younger than 18 years of age must petition with the Admission Committee to be considered for admission.

GED Applicants Between 18 and 21 Years of Age (GED Taken in 2014 or later)

Assured Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. Passing GED scores with a minimum 170 score on each test and a total of 680 or higher;
3. Received test scores meeting the following:
 - a. Composite score of at least a 20 on the ACT or a 1030 Total score on the Redesigned SAT;
 - b. Math score of at least 18 on ACT and a 520 on the Redesigned SAT Math Section; and
 - c. English score of at least 18 on the ACT or a 25 on the Redesigned SAT Reading Test.
 - d. If the SAT was taken prior to April 2016, test score requirements are 490 on SAT Math and 460 on SAT Critical Reading.

Conditional Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. Passing GED scores with a minimum 160 score on each test and a total of 640 or higher;
3. Received test scores meeting the following:
 - a. Composite scores of at least 14 on the ACT or a 730 total score on the Redesigned SAT;
 - b. Math score of at least 12 on the ACT or a 310 on the Redesigned SAT Math Section; and
 - c. English score of at least 12 on the ACT or a 20 on the Redesigned SAT Reading Test.

GED Applicants Between 18 and 21 Years of Age (GED taken between 2002 through 2013)

Assured Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. Passing GED scores with a minimum 410 score on each test and an average of 450 or above; and
3. Received test scores meeting the following:
 - a. Composite scores of at least 14 on the ACT or a 730 total score on the Redesigned SAT;
 - b. Math score of at least 12 on the ACT or a 310 on the Redesigned SAT Math Section; and
 - c. English score of at least 12 on the ACT or a 20 on the Redesigned SAT Reading Test.
 - d. If the SAT was taken prior to April 2016, test score requirements are 270 or higher on SAT Math and 360 or higher on SAT Critical Reading.

Conditional Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. Passing GED scores with a minimum 410 score on each test and an average of 450 or above; and
3. Received test scores meeting the following:
 - a. Composite scores of at least 14 on the ACT or a 730 total score on the Redesigned SAT;
 - b. Math score of at least 12 on the ACT or a 310 on the Redesigned SAT Math Section; and
 - c. English score of at least 12 on the ACT or a 20 on the Redesigned SAT Reading Test.
 - d. If the SAT was taken prior to April 2016, test score requirements are 270 or higher on SAT Math and 360 or higher on SAT Critical Reading.

GED Applicants Over 21 Years Old (GED Taken in 2014 or later)

Assured Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid; and
2. Passing GED score with a minimum 170 score on each test and a total of 680.

Conditional Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid; and
2. Passing GED score with a minimum of 160 in each test and a total of 640.

GED Applicants Over 21 Years Old (GED Taken between 2002 and 2013)

Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid; and
2. Passing GED scores with a minimum 410 score on each test and an average of 450 or above.

GED Applicants Over 21 Years Old (GED Taken earlier than 2002)**Admission Requirements:**

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid; and
2. Passing GED scores with a minimum of 41 on each test and a total of 45 or higher.

Transfer Students

Applicants who have 1 (one) or more attempted and/or in-progress credits at any college or university after graduating from high school (or receiving a GED) prior to enrolling at Idaho State University.

Application Steps for Transfer Students:

1. Apply for admission online at apply.isu.edu, and pay the \$50 non-refundable application fee.
2. Submit an official transcript from each college previously attended, whether accredited or unaccredited, to Idaho State University. Official transcripts must be mailed in a sealed envelope to Idaho State University by the awarding institution. Official transcripts by fax are permitted only when sent within the state of Idaho (from Idaho high schools or colleges). Transcripts may also be accepted as official if sent through secure e-transcript services directly from the issuing institution. Transcripts will not be accepted directly from a student.
 - a. Joint Services Transcripts are not required for admission purposes nor are they articulated by the Office of the Registrar. However, transcripts from post-secondary institutions that are operated by the military are required.
3. If applying in mid-semester while attending elsewhere, applicants must submit an in-progress college transcript indicating grades earned through the most recent completed semester. Once they have completed the term, they will need to submit their final college transcript.
4. If applicants apply for admission and do not have 14 or more attempted credit hours (academic or technical) from an accredited university, they are considered a New Transfer and will need to submit:
 - a. their final high school transcript;
 - b. SAT or ACT scores, if the applicant is under the age of 21; and
 - c. Final, official transcript(s) from each college attended or an in-progress transcript if currently attending.

Assured Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. 2.0 or better cumulative grade point average; and
3. Submission of final, official transcript(s) from each college attended or in-progress transcript if currently attending.

Applicants with less than a 2.0 cumulative transfer GPA from previous college work are required to submit a petition to the Admission Petition Committee (see Admission by Petition).

Transfer Credit Evaluation

Please visit <https://isu.edu/registrar/transfer-credit-process/> for information about transfer credit evaluation.

Other Applicants**Former Students****Application Steps for Former Students:**

Students who have been admitted and enrolled in classes previously but have NOT enrolled in classes at Idaho State University for 8 semesters (including summers) are required to re-apply and submit the following to the Office of Admissions:

1. Apply for admission online at apply.isu.edu and pay the \$50 non-refundable application fee.
2. Resubmit all official documentation:
 - a. Submit all official transcripts from any college attended prior to enrolling to Idaho State University and after attending Idaho State University;
 - b. Submit high school transcript or GED score transcript, if applicable; and/or
 - c. Submit ACT/SAT scores, if applicable.

Assured Admission Requirements:

1. Completed Undergraduate Application and the \$50 non-refundable application fee has been paid;
2. 2.0 or better cumulative grade point average; and
3. Submission of final, official transcript(s) from each college attended or an in-progress transcript if currently attending.

Non-Degree Seeking Students

A person (16 years or older) may apply as a non-degree seeking student if he/she does not wish to attend for degree work but to pursue studies for personal reasons. Such a student may register for up to 7 credits per semester unless he or she is enrolled in the Early College Program.

A non-degree seeking student who has completed 32 credits must follow regular admission procedures at Idaho State University to enroll for additional degree credits or sign a non-degree waiver to continue as a non-degree seeking student. All admission requirements must be met before the University can assist this student in obtaining a degree. Such a student will be classified as non-degree seeking until all admission requirements are met for classification as a degree seeking student.

Non-degree seeking students are NOT eligible for federal financial aid.

Early College Program/High School Dual Credit

Academically qualified high school students may enroll at Idaho State University through the Early College Program. Dual credit allows high school students the opportunity to earn college credit while concurrently enrolled in high school courses. These courses may be taught at their high school by instructors approved as Idaho State University adjunct faculty.

High school students must complete the following:

1. Early College Program Application; and
2. Submit a Verification of Eligibility and Parent/Guardian Permission form with a high school official's signature, parent, and student written signatures.
3. High school students meeting the necessary requirements (3.0 cumulative GPA, 16 years old or completed half of their high school graduation requirements) will be allowed to enroll as non-degree seeking students.

If high school students wish to take courses on campus through the Early College Program, they must complete an On-Campus Registration request and Liability Waiver through the Early College office. High school students may enroll in

any class offered through Idaho State University for which they have met the prerequisites, but are limited to 1000 and 2000 level courses.

A student must hold the status of high school student for the entire Idaho State University course length in order to participate in the Early College Program. High school students are NOT eligible to receive federal financial aid for their dual credit courses.

For additional information or for help with registration, contact the Early College Program at (208) 282-6067 or visit <http://www.isu.edu/ecp/>.

Idaho State University, in conjunction with the Early College Program, has established the University Health High School (UHHS) program to offer high school students an opportunity to explore the numerous career possibilities in the health professions. Through an online learning platform, students will obtain credit for prerequisite courses specific to programs in the health professions. Please visit the UHHS website (<https://www.isu.edu/ecp/registration/university-health-high-school>) for course registration information.

Admission by Petition

Applicants who do not meet conditional admission standards may request further consideration for admission because of special circumstances.

Applicants who wish to petition must submit the following to the Office of Admissions:

1. Admission petition form explaining why they believe they can be successful at Idaho State University and documenting their special circumstances;
2. Current test scores (ACT, SAT, and/or ALEKS). Test scores are considered current if taken within 12 months; and
3. Letters of support from counselors, teachers, etc. are encouraged.

Admission petitions are reviewed by the Admission Petition Committee chaired by a representative of the Office of Admissions. The committee consists of at least five other members representing faculty, First Year Transition, Office of the Registrar, the Athletics Department, Disability Services, College of Technology, TRiO Student Services, or START program. Completed petitions are usually reviewed within one month.

Applicants whose petitions are approved must follow the guidelines set by the committee and First Year Transition. These requirements may include: signing an Admission Agreement that limits the number of credits the student may attempt; requiring registration in support or developmental courses; and requiring regular meetings with an assigned advisor from Central Academic Advising.

Re-Applying for Admission - Applicants not meeting requirements to be granted conditional admission have the opportunity to re-apply to the university after they complete the recommendations of the admission petition committee, if given. This may include completing 14 or more transferable semester hours (credits) at a regionally accredited college or university, receiving passing exam scores on the Test of Adult Basic Education (TABE), or completing the START program. An applicant may choose to complete any of these, even if not recommended by the admission petition committee, but must submit a letter explaining their decision to complete an alternative option.

Admission Deferment Policy

Admitted Freshmen students who decide to delay their enrollment at ISU in order to perform voluntary service (church mission, U.S. military, or other government or non-profit agency) may submit a one-time request to defer their admission to a future semester that is up to six subsequent semesters (not including the summer semesters) after the semester they were offered admission (example: A student admitted for the Fall 2019 semester could request a deferment up to and

including the Fall 2021 semester. See the table below for deadlines for additional semesters). This deferment assumes that the student:

- will remain a first-time freshman upon enrollment;
- will enroll at ISU as a first-time freshman upon return from the volunteer service; and
- will not enroll at another post-secondary institution prior to enrollment at ISU.

The Admission Deferment Request form (available at www.isu.edu/future/defer) must be submitted to the Office of Admissions by August 1 before the fall semester for which the student has been admitted, or December 1 for the Spring semester. The deferment guarantees admission to ISU but not necessarily admission to a particular academic major and/or program of study. More details on the Admission Deferment Policy can be found at www.isu.edu/future/defer.

Session Admitted: Spring 2020

Can defer admission until: Spring 2023

Deadline for ISU to receive Admissions Deferment Request Form: 12/1/2019

Session Admitted: Fall 2019

Can defer admission until: Fall 2022

Deadline for ISU to receive Admissions Deferment Request Form: 8/1/2019

Students Who were Admitted but did not Enroll

Students accepted for admission to Idaho State University who do not attend their first semester will be allowed to enroll the next academic term (not including summer) without reapplying, but they will need to request a semester change with an Admissions employee. Admission is granted for a two (2) term time frame unless the applicant files the Admission Deferment Form. If student do not attend the semester they applied for or request a semester change for the following semester, the students will have to reapply in order to attend.

Students with Behavioral Problems

Whenever an applicant for admission or a student (regardless of the program of study or whether full-time or part-time) exhibits behavior that poses a substantial threat to himself/herself or other members of the university community or is disruptive of the educational processes, said student or applicant will be subjected to a special screening process. This process has been formulated as a result of recommendations of a committee of the faculty and students of this institution and will apply to any admission or readmission request. In the event that the conduct or behavior of the individual or any other member of the university community is disruptive of the educational process of the institution, these procedures shall apply whether the cause of the condition is medical, psychiatric, behavioral, otherwise, or a combination of the above.

International Admissions

Idaho State University encourages and welcomes international students to apply. We are proud of the active part taken in student activities by students from around the world. Admission to Idaho State University for international students is dependent upon credentials showing proof that the students are able to perform well in an American academic environment. The Office of International Admissions recognizes there are no such things as equivalents between curricula in any other country and the United States. Thus, foreign courses must be evaluated in terms of approximations.

Applications

The priority dates for international student admission applications are March 1 for fall semester, and August 1 for spring semester. The form is online at www.isu.edu/apply/international/. The following additional items are needed:

1. Application Fee (\$50, nonrefundable);
2. Documents showing English Proficiency (e.g., IELTS, TOEFL);
3. Official Transcripts from all universities previously attended and statements of English proficiency when applicable; an official transcript is one that is sent directly from the institution to the International Programs Office at Idaho State University;
4. Official secondary or high school transcripts if fewer than 26 transfer college credits have been earned;
5. Declaration of Financial Support for one academic year along with supporting bank documents;
6. Copy of passport picture page;
7. Students transferring from another U.S. college or university are required to have the SEVIS Transfer Release form completed and submitted to the Office of International Admissions along with a copy of the current visa, I-94 and the current I-20 or DS-2019 forms issued to them by the school from which they wish to transfer; and
8. Online Verification Form (<https://www.isu.edu/ipo/forms/verify>).

It is critical that students submit necessary admission documents early so they may be cleared to register for classes. Those submitting application materials late cannot be assured of registration for the current semester. An official transcript is one that is sent directly from the college/university to the International Programs Office at Idaho State University. **Failure to list and submit transcripts from all schools attended, or submission of inaccurate information, is considered fraud and is cause for refusal of admission or dismissal from Idaho State University.**

English Proficiency

Students from other countries are required to provide evidence of a satisfactory score on one of the following standardized tests:

- Compass Test - 68 or higher,
- TOEFL - iBT of 61 or above,
- IELTS - overall band score of 5.5 or above, or a 5.0 on each of the sub-tests.
- SAT - critical reading 450 or above

Exemption from the English Proficiency requirement is possible for students who:

1. are coming from countries where English is the official medium of instruction.
2. are transferring 26 or more credits from another college or university in the United States.

3. have successfully completed their prescribed course of study at the ISU Intensive English Institute and who have the recommendation of the IEI staff.
4. can show English proficiency by completing Level 112 at any ELS program (<http://www.els.edu>).

To see whether you qualify, contact the International Programs Office at 208-282-4320. Test results must be sent directly to the ISU International Programs Office from the testing organization. To find test centers and to learn more about the tests, go to <http://www.ets.org/toefl/> or <http://www.ielts.org/> or <https://collegereadiness.collegeboard.org/sat/scores>.

International High School Graduates

Assured Admission requires:

1. A completed Undergraduate Admission Application with the \$50 nonrefundable application fee paid;
2. 2.50 or better cumulative grade point average;
3. Secondary school (high school) diploma and mark sheets (grades) in original, or copies certified by the school principal, or the controller of examinations. Documents must be sent in an official, sealed school envelope. Translation of these documents by a certified translator must be done if the documents are not in English; and
4. Meeting English proficiency requirements.

Conditional Admission requires:

1. A completed Undergraduate Admission Application with the \$50 nonrefundable application fee paid;
2. 2.25 or better cumulative grade-point average;
3. Secondary school (high school) diploma and mark sheets (grades) in original, or copies certified by the school principal, or the controller of examinations. Documents must be sent in an official, sealed school envelope. Translation of these documents by a certified translator must be done if the documents are not in English; and
4. Meeting English Proficiency requirements.

We do not require SAT or ACT scores for admission. However, we strongly encourage our students to take these. The scores can be used to determine English proficiency and Math or English placement.

International Alternative Admissions without High School Diploma

Assured Admission requires:

1. A completed Undergraduate Admission Application with the \$50 nonrefundable application fee paid;
2. Composite score of at least 21 on ACT or a 1050 combined SAT Critical Reading and Math score;
3. GED score with a 450 (45) average and no individual score below 410 (41) or both a Compass score in English of at least 68 and Algebra score of at least 40.

Conditional Admission requires:

1. A completed Undergraduate Admission Application with the \$50 nonrefundable application fee paid;

- Composite score of at least 20 on ACT or a 1000 combined SAT Critical Reading and Math score;
- GED score with a 450 (45) average and no individual score below 410 (41).

For both assured and conditional international alternative admissions, students may be required to provide either a TOEFL iBT score of 61 or above or an IELTS overall band score of 5.5 or above, or a 5.0 on each of the sub-tests to demonstrate their English proficiency if they score less than:

- 18 on the ACT English test,
- 450 on their SAT Critical Reading test,

Test results must be sent directly to the International Programs Office from the testing organization.

International Transfer Student Admission Requirements

- International students who have completed less than 2 semesters of full-time study (fewer than 26 credits) are required to submit secondary school (high school) diploma and mark sheets (grades) in original, or copies certified by the school principal, or the controller of examinations. Documents must be in an official, sealed school envelope. Students are also required to mail in official (original) post-secondary transcripts in a sealed envelope from the school. Copies should be certified by the school principal or the controller of examinations.
- If a student has completed at least 26 credits at a post-secondary institution, then the student is required to submit official (original) transcripts in a sealed envelope, bearing the stamp from the issuing institution. Copies should be certified by the school registrar or the controller of examinations. Students who have attended more than one college/university must submit official transcripts from each institution attended. Post-secondary institutions include colleges, universities, and technical institutions.
- Students who have already completed an associate's (2 year) or bachelor's (3 or 4 year) degree must also submit their diploma, or have their diploma posted on the transcript.
- All non-English documents must be translated by a certified translator.
- All international post-secondary documents must go through an evaluation service approved by the National Association of Credential Evaluation Services, Inc. (NACES). Students need to provide the International Programs Office with the official credential evaluation in addition to the official transcripts. **In order for an evaluation to be considered official, it must come to us directly from the evaluation service.** For evaluations, Idaho State University recommends:

SpanTran: The Evaluation Company (<https://www.spantran.com>), 713-789-6022
 Educational Credential Evaluators, (<https://www.ece.org/ECE>) 414-289-3400
 World Education Services, (<https://www.wes.org>) 212-966-6311
 Global Credential Evaluators, Inc. (<https://gceus.com>), 800-707-0979

- Students must meet English proficiency requirements.

Transfer of I-20/DS-2019 Form

International students who have attended any other college or university in the United States are required to have the SEVIS Transfer Release Form completed by the official International Student Advisor from their previous institution. The form should be submitted to the International Programs Office along with a copy of the student's I-20/DS-2019 and I-94 forms. All I-20's are generated and tracked by the International Programs Office. If you have questions regarding this process, please call (208) 282-4320 or email ipomail@isu.edu.

Declaration of Financial Support / Financial Statement

All international students must submit documentation showing that they are financially able to support themselves while attending Idaho State University. The Declaration of Financial Support Form from a sponsor along with an attached official bank statement will serve as proof of the student's financial ability to meet his/her educational costs. The designated sponsor must release funds when needed to pay for expenses as indicated on the declaration. Refer to the estimate of costs, shown below. International students receiving athletic scholarships from Idaho State University must have the Athletic Department submit written verification of such a financial award. Idaho State University reserves the right to require financial deposits from students before registration.

Scholarships

Based on academic merit and availability, new entering International students may be considered for non-resident fee waiver scholarships worth approximately \$15,520 per year. For more information, go to <https://www.isu.edu/scholarships/non-resident-tuition-waivers-/#d.en.31488>.

Estimated Costs

Undergraduate, Without Scholarship

Fee	Amount
Tuition and Fees*	\$22,940.00
Room and Meals	\$8,280.00
Other Expenses (Books, Supplies, and Medical Insurance)**	\$1,636.00
Total	\$32,856.00

Undergraduate, With Non-resident Tuition Scholarship

Fee	Amount
Tuition and Fees*	\$7,420.00
Room and Meals	\$8,280.00
Other Expenses (Books, Supplies, and Medical Insurance)**	\$1,636.00
Total	\$17,336.00

Note: Academic year includes Fall and Spring semesters only. Summer Semester costs are not included in the estimates. Costs are subject to change; see <https://www.isu.edu/costinfo/> for the most updated information.

* Some academic and most College of Technology programs require **additional** tool or class costs. Students need to contact individual departments or programs for these costs.

** Students must have the necessary funds to purchase medical insurance for themselves and their family. Costs for medical services provided while in the U.S. are NOT covered by the state of Idaho or the federal government.

Tuition costs include the basic fees paid by all students, plus Non-Resident Tuition which is required of all non-Idaho residents.

See University Housing (<https://www.isu.edu/housing>) for information about on-campus housing. Off-campus options are available. Married students accompanied by spouse and children must provide additional funds for them. International students are confronted with a different circumstance than resident students or even out-of-state students. These students may need to supplement their personal belongings with purchases after they arrive on campus. In addition, international students may be required to arrange for their own meals during vacations when residence hall cafeterias are closed.

Academic Information

Academic Policies

Academic policies fall under the purview of the Office of Academic Affairs. The Office of Academic Affairs seeks the input, advice, and recommendations of faculty representative constituent groups as follows:

The **Faculty Senate** represents the University Faculty in the initiation, consideration, recommendation, and implementation of policy within the purpose and powers of the University Faculty. The Faculty Senate considers matters referred to it by the University Faculty, Senators, the Provost/Vice President for Academic Affairs, the University President, or the President's representative. It recommends to the Provost changes in academic and other policies that affect the Faculty, and through the President recommends policy changes to the State Board of Education.

The **Academic Standards Council**, a Council of the Faculty Senate, is responsible for recommending university policy and procedures pertaining to undergraduate academic standards for admission, progression, and the granting of degrees and certificates.

The **Undergraduate Curriculum Council** is responsible for ensuring the quality and appropriateness of undergraduate courses and undergraduate degree programs offered by Idaho State University. All proposals for the addition of or changes in undergraduate courses and undergraduate degree programs must be approved by the Undergraduate Curriculum Council.

The **General Education Requirements Committee**, a subcommittee of the Undergraduate Curriculum Council, is responsible for courses and policies that relate to the University's general education requirements for appropriateness, rigor, assessment, and to make recommendations based on these evaluations to the Undergraduate Curriculum Council.

The **Graduate Council** is responsible for ensuring the quality and appropriateness of graduate courses and graduate degree programs. The Graduate Council provides recommendations concerning establishment and maintenance of requirements for graduation; allocation of privileges such as scholarships, honors, awards and grants-in-aid for graduate students; and the establishment of grade standards to be maintained by graduate students.

The **Research Council** is responsible for advising the Vice President for Research on the formulation, review, and application of policies touching on research matters. The Research Council provides oversight of subcommittees involved in the peer review and administration of internal grant awards funded by the Vice President for Research.

Courses Required of All Degree-Seeking Students

All degree-seeking students must fulfill departmental, General Education, and general graduation requirements for their particular fields of study. Departmental graduation requirements are course concentration requirements for a major in each field of study, and are listed under the college to which the department belongs. General Education requirements are course distribution requirements for particular degrees; all students pursuing a bachelor's degree or an academic associate's degree must complete eight (8) of the nine (9) General Education Objectives (p. 57). Graduation requirements regarding credits, grades, and residence are common to all bachelor's degrees and are described in the Degree Requirements (p. 62) section of this catalog.

General Education

The General Education Program

The General Education program at Idaho State University prepares students to be life-long, independent learners and active, culturally aware participants in diverse local, national, and global communities. As the foundation for all further studies, General Education promotes comprehensive literacy - including effective communication, mathematical, and technological skills; reasoning and creativity; and information literacy - and a broad knowledge base in the liberal arts.

General Skills and Abilities

Through completing the General Education program, students will be able to:

- Communicate effectively and clearly in standard written and spoken language;
- Use mathematical language and quantitative reasoning effectively;
- Think logically, critically, and creatively; and
- Locate relevant sources and use them critically and responsibly.

General Education Requirements: The Nine Objectives

All students must complete a minimum of 36 credits from the nine Objective areas as outlined below. All students must meet Objectives 1 through 6, Objective 9, and choose to meet either Objective 7 or 8.

Transfer Credits

A student with transfer credits that meet a specific Objective's course requirement, but who falls no more than one credit short of meeting its credit requirement will be deemed to have satisfied the Objective (a student missing more than one credit in an Objective must complete additional coursework specific to that Objective).

If a student has satisfied all nine Objectives but does not meet the total minimum credit requirement for general education (36), the student must complete additional coursework from any of the outlined Objective areas to meet the 36 credit minimum.

Objective 1, Written Communication:

Minimum of two (2) courses. (6 credits)

Upon completion of the courses in this category, students are able to demonstrate the following competencies:

- Use flexible writing process strategies to generate, develop, revise, edit, and proofread texts.
- Adopt strategies and genre appropriate to the rhetorical situation.
- Use inquiry-based strategies to conduct research that explores multiple and diverse ideas and perspectives, appropriate to the rhetorical context.
- Use rhetorically appropriate strategies to evaluate, represent, and respond to the ideas and research of others.
- Address readers' biases and assumptions with well-developed evidence-based reasoning.
- Use appropriate conventions for integrating, citing, and documenting source material as well as for surface-level language and style.
- Read, interpret, and communicate key concepts in writing and rhetoric.

Courses that satisfy Objective 1:

Code	Title	Credits
ENGL 1101	Writing and Rhetoric I	3
ENGL 1101P	Writing and Rhetoric I Plus	4
ENGL 1102	Writing and Rhetoric II ¹	3
HONS 1101	Honors Humanities I ¹	3

¹ Must obtain a minimum grade of C- or better.

Objective 2, Oral Communication:

Minimum of one (1) course. (2 credits minimum)

Upon completion of a course in this category, students are able to demonstrate the following competencies.

- Research, discover, and develop information resources and structure spoken messages to increase knowledge and understanding.
- Research, discover, and develop evidence-based reasoning and persuasive appeals for ethically influencing attitudes, values, beliefs, or behaviors.
- Adapt spoken messages to the diverse personal, ideological, and emotional needs of individuals, groups, or contexts.
- Employ effective spoken and nonverbal behaviors that support communication goals and illustrate self-efficacy.
- Listen in order to effectively and critically evaluate the reasoning, evidence, and communication strategies of self and others.
- Understand key theories, perspectives, principles, and concepts in the Communication discipline, as applied to oral communication

One course satisfies the objective:

Code	Title	Credits
COMM 1101	Fundamentals of Oral Communication	3

Objective 3, Mathematical Ways of Knowing:

Minimum of one (1) course. (3 credits)

Upon completion of a course in this category, a student is able to demonstrate the following competencies.

- Read, interpret, and communicate mathematical concepts.
- Represent and interpret information/data.
- Select, execute, and explain appropriate strategies/procedures when solving mathematical problems.
- Apply quantitative reasoning to draw and support appropriate conclusions.

Courses that satisfy Objective 3:

Code	Title	Credits
MATH 1123	Math in Modern Society	3
MATH 1123P	Mathematics in Modern Society Plus	4
MATH 1127	The Language of Mathematics	3
MATH 1130	Finite Mathematics	3
MATH 1143	College Algebra	3
MATH 1147	College Algebra and Trigonometry	5
MATH 1153	Statistical Reasoning	3

MATH 1153P	Statistical Reasoning Plus	4
MATH 1160	Survey of Calculus	3
MATH 1170	Calculus I	4
MATH 2256	Structure of Arithmetic for Elementary School Teachers	3
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3
MGT 2216	Business Statistics	3
RCET 1372	Calculus for Advanced Electronics	4
TGE 1140	Survey of Applied Mathematics	3

For further information about mathematics prerequisites and placement, see Placement in Mathematics (p. 65).

Objective 4, Humanistic and Artistic Ways of Knowing:

Minimum of two (2) courses. (6 credits.) Courses must be selected from **two different categories**: Humanities, Fine Arts, or Foreign Language.

Upon completion of a course in this category, students are able to demonstrate at least five (5) of the following competencies.

- Recognize and describe humanistic, historical, or artistic works within problems and patterns of the human experience.
- Distinguish and apply terminologies, methodologies, processes, epistemologies, and traditions specific to the discipline(s).
- Perceive and understand formal, conceptual, and technical elements specific to the discipline.
- Analyze, evaluate, and interpret texts, objects, events, or ideas in their cultural, intellectual, or historical contexts.
- Interpret artistic and/or humanistic works through the creation of art or performance.
- Develop critical perspectives or arguments about the subject matter, grounded in evidence-based analysis.
- Demonstrate self-reflection, intellectual elasticity, widened perspective, and respect for diverse viewpoints.

Courses that satisfy Objective 4:

Humanities

Code	Title	Credits
ENGL 1115	Major Themes in Literature	3
ENGL 1126	Art of Film I	3
ENGL 2257	Survey of World Literature I Beginnings through 16th Century	3
ENGL 1175	Literature and Ideas	3
ENGL 2258	Survey of World Literature II 17th Century to Present	3
HONS 1102	Honors Humanities II	3
PHIL 1101	Introduction to Philosophy	3
PHIL 1103	Introduction to Ethics	3
TGE 1257	Applied Ethics in Technology	3

Fine Arts

Code	Title	Credits
ART 1100	Introduction to Art	3
ART 1101	Survey of Art History I	3

ART 1102	Survey of Art History II	3
ART 2210/CMP 2250	History and Appreciation of Photography	3
DANC 1105	Survey of Dance	3
DANC 2205	Dance in the Modern Era	3
MUSI 1100	Introduction to Music	3
MUSI 1105	Survey of Rock Music	3
MUSI 1106	American Music	3
MUSI 1108	The World of Music	4
MUSI 1109	Survey of Jazz	3
THEA 1101	Survey of Theatre	3

Foreign Languages

Code	Title	Credits
ARBC 1101	Elementary Arabic I	4
ARBC 1102	Elementary Arabic II	4
CHNS 1101	Elementary Chinese I	4
CHNS 1102	Elementary Chinese II	4
CSD 1151	American Sign Language I	3
CSD 1152	American Sign Language II	3
FREN 1101	Elementary French I	4
FREN 1102	Elementary French II	4
GERM 1101	Elementary German I	4
GERM 1102	Elementary German II	4
JAPN 1101	Elementary Japanese I	4
JAPN 1102	Elementary Japanese II	4
LANG 1101	Elementary Foreign Language I	4
LANG 1102	Elementary Foreign Language II	4
LATN 1101	Elementary Latin I	4
LATN 1102	Elementary Latin II	4
RUSS 1101	Elementary Russian I	4
RUSS 1102	Elementary Russian II	4
SHOS 1101	Elementary Shoshoni I	4
SHOS 1102	Elementary Shoshoni II	4
SPAN 1101	Elementary Spanish I	4
SPAN 1102	Elementary Spanish II	4

Objective 5, Scientific Ways of Knowing:

Minimum of two (2) lecture courses and one (1) laboratory. (7 credits) Courses must be selected from **two different course prefixes**.

Upon completion of a course in this category, a student is able to demonstrate at least four (4) of the following competencies.

- Apply foundational knowledge and models of a natural or physical science to analyze and/or predict phenomena.
- Understand the scientific method and apply scientific reasoning to critically evaluate arguments.
- Interpret and communicate scientific information via written, spoken, and/or visual representations.
- Describe the relevance of specific scientific principles to the human experience.
- Form and test a hypothesis in the laboratory or field using discipline-specific tools and techniques for data collection and/or analysis.

Courses that satisfy Objective 5:

Code	Title	Credits
ANTH 2230 & 2230L	Biological Anthropology and Biological Anthropology Lab	4
BIOL 1100 & 1100L	Concepts of Biology and Concepts of Biology Lab (designed for non-science, non-health related majors) ^L	4
BIOL 1101 & 1101L	Biology I and Biology I Lab (designed for students preparing for majors in science, pre-medical fields, and health related professions) ^L	4
BIOL 2227 & 2227L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab ^L	4
CHEM 1100	Concepts of Chemistry ^L	4
CHEM 1101	Introduction to Chemistry	3
CHEM 1102 & CHEM 1103	Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory ^L	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab ^L	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab ^L	4
GEOL 1100 & 1100L	The Dynamic Earth and The Dynamic Earth Lab (this is the lab for students in Geoscience majors) ^L	4
GEOL 1101 & 1101L	Physical Geology and Physical Geology Lab ^L	4
NTD 2239	Nutrition	3
PHYS 1100	Essentials of Physics ^L	4
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ^L	4
PHYS 1111	General Physics I	3
PHYS 1112	General Physics II	3
PHYS 1113	General Physics I Laboratory ^L	1
PHYS 1114	General Physics II Laboratory ^L	1
PHYS 1152	Descriptive Astronomy	3
PHYS 1153	Descriptive Astronomy Laboratory ^L	1
PHYS 2211	Engineering Physics I	4
PHYS 2212	Engineering Physics II	4
PHYS 2213	Engineering Physics I Laboratory ^L	1
PHYS 2214	Engineering Physics II Laboratory ^L	1

^L Courses with an L notation will apply to Objective 5 as a Laboratory Experience

GEOL 1115 and 1115L taken prior to Fall 2013 may also be used toward Objective 5.

Objective 6, Social and Behavioral Ways of Knowing:

Minimum of two (2) courses. (6 credits) Courses must be selected from **two different course prefixes**.

Upon completion of a course in this category, students are able to demonstrate at least four (4) of the following competencies.

- Demonstrate knowledge of the theoretical and conceptual frameworks of a particular Social Science discipline.
- Develop an understanding of self and the world by examining the dynamic interaction of individuals, groups, and societies as they shape and are shaped by history, culture, institutions, and ideas.
- Utilize Social Science approaches, such as research methods, inquiry, or problem-solving, to examine the variety of perspectives about human experiences.
- Evaluate how reasoning, history, or culture informs and guides individual, civic, or global decisions.
- Understand and appreciate similarities and differences among and between individuals, cultures, or societies across space and time.

Courses satisfying Objective 6:

Code	Title	Credits
ANTH 1100	Discover Anthropology	3
ANTH 1102	Cultural Anthropology	3
ECON 1100	Economic Issues	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
EDUC 1110	Education and Schooling in the U.S.	3
HIST 1101	World History I	3
HIST 1102	World History II	3
HIST 1105	Foundations of Europe	3
HIST 1106	Modern Europe	3
HIST 1111	United States History I	3
HIST 1112	United States History II	3
GLBL 2203	International Organizations Today: Conflicts and Cooperation	3
POLS 1101	American National Government	3
PSYC 1101	Introduction to Psychology	3
SOC 1101	Introduction to Sociology	3
SOC 1102	Social Problems	3
TGE 1150	Applied Social Sciences in the Workplace	3

Objective 7, Critical Thinking:

Minimum of one (1) course from either Objective 7 or Objective 8. (3 credits)

Critical Thinking is defined as the ability to think analytically, creatively, and reflectively to make informed and logical judgements, draw reasoned and meaningful conclusions, and apply ideas to new contexts. Courses satisfying this Objective must include active learning.

Upon completion of a course in this category, students are able to demonstrate the following competencies.

- Formulate/frame problems and analyze how others do so.
- Recognize and apply appropriate practices for analyzing ambiguous problems.
- Identify and apply relevant information for problem solving.
- Create, analyze, and evaluate/interpret diverse perspectives and solutions.

- Establish a reasoned framework for drawing conclusions and/or recommending solutions.
- Effectively articulate the results of a thinking process.

Courses satisfying Objective 7:

Code	Title	Credits
ANTH/ENGL/LANG 1107	Nature of Language	3
CS 1181	Computer Science and Programming I	3
CMP 2205	Argumentation	3
GEOL 1107	Real Monsters	3
HIST 1100	History in Film	3
HIST 1118	US History and Culture	3
HIST 1120	Themes in World History	3
INFO 1181	Informatics and Programming I	3
PHIL 2201	Introduction to Logic	3
PHIL 2250	Contemporary Moral Problems	3
POLS 2202	Introduction to Politics Critical Thinking and Analysis	3
SOC 2248	Critical Analysis of Social Diversity	3
THEA 1118	Oral Interpretation of Literature	3
THEA 2251	Fundamentals of Acting	3

Objective 8, Information Literacy:

Minimum of one (1) course from either Objective 7 or Objective 8. (3 credits)

Information literacy is defined as the ability to recognize when information is needed and to locate, evaluate, and use information effectively. Courses satisfying this Objective must involve hands-on practice for students rather than merely the presentation of theoretical principles.

Upon completion of a course in this category, students are able to demonstrate the following competencies.

- Determine the nature and extent of the information/data needed to accomplish a specific purpose.
- Identify sources and gather information/data effectively and efficiently.
- Evaluate credibility of sources and information/data.
- Understand the economics, ethical, legal, and social issues surrounding the creation, collection, and use of information/data.
- Use information/data effectively to accomplish a specific purpose.

Courses satisfying Objective 8:

Code	Title	Credits
ACAD 1111	Info Literacy and Inquiry: Locating, Evaluating & Integrating Information for Research	3
CMP 2203	Media Literacy	3
FIN 1115	Personal Finance	3
HIST 2291	The Historian's Craft	3
INFO 1101	Digital Information Literacy	3
LLIB 1115	Introduction to Information Research	3

Objective 9, Cultural Diversity:

Minimum of one (1) course.* (3 credits)

Upon completion of a course in this category, students are able to demonstrate the following competencies.

- Identify the defining characteristics of culturally diverse communities in regional, national, or global contexts.
- Describe the influence of cultural attributes such as ability, age, class, epistemology, ethnicity, gender, language, nationality, politics, or religion inherent in different cultures or communities.
- Apply knowledge of diverse cultures to address contemporary or historical issues.

Courses satisfying Objective 9:

Code	Title	Credits
ANTH/SHOS 2201	Intermediate Shoshoni I	4
ANTH/SHOS 2202	Intermediate Shoshoni II	4
ANTH/ENGL 2212	Introduction to Folklore and Oral Tradition	3
ANTH 2237	Peoples and Cultures of the Old World	3
ANTH 2238	Peoples and Cultures of the New World	3
ANTH 2239	Latino Peoples and Cultures	3
ARBC 2201	Intermediate Arabic I	4
ARBC 2202	Intermediate Arabic II	4
CHNS 2201	Intermediate Chinese I	4
CHNS 2202	Intermediate Chinese II	4
CMLT 2207	Contemporary European Culture	3
CMLT 2208	Cultures of the Spanish Speaking World	3
CMLT 2209	Cultures of East Asia	3
CSD 2210	Human Communication, Differences, and Disorders through Literature and Media	3
CSD 2256	Deaf Culture and Community	3
EDUC 2204	Families Community Culture	3
ENGL 2210	American Cultural Studies	3
FREN 2201	Intermediate French I	4
FREN 2202	Intermediate French II	4
GERM 2201	Intermediate German I	4
GERM 2202	Intermediate German II	4
GLBL 2202	The World Today:Introduction to Global Issues	3
GLBL 2270	World Regional Geography and Cultures	3
HIST 2201	Women In U.S. History	3
HIST 2251	Latin American History and Culture	3
HIST 2252	East Asian History	3
HIST 2254	Middle East History and Culture	3
HIST 2255	African History and Culture	3
JAPN 2201	Intermediate Japanese I	4
JAPN 2202	Intermediate Japanese II	4
LATN 2201	Intermediate Latin I	4
LATN 2202	Intermediate Latin II	4
PHIL 2210	Introduction to Asian Philosophies	3
RUSS 2201	Intermediate Russian I	4
RUSS 2202	Intermediate Russian II	4

SCPY 1001	Psychology of Diversity and Learning in Schools	3
SOC 2201	Introduction to Gender and Sexuality Studies	3
SPAN 2201	Intermediate Spanish I	4
SPAN 2202	Intermediate Spanish II	4

*Credit by CLEP exam does not fulfill Objective 9, the Cultural Diversity Objective.

Degree Requirements

Idaho State University Resident Credit Requirements

Resident credits are credits earned at Idaho State University for ISU credit-bearing courses. The following lists the resident credit requirements of the University.

- For an undergraduate certificate requiring 30 credits or less, at least 50% of credits applied to the certificate must be resident credits, as defined above.
- For the associate degree and undergraduate certificates requiring 31 credits or more, at least 15 credits in the major area of study must be resident credits*, or 15 credits of the last 25 credits applied to the degree must be resident credits, as defined above.
- For the bachelor's degree:
 - At least 30 credits in the major area of study must be resident credits*, or 30 of the last 50 credits applied to the degree must be resident credits, as defined above.
 - At least 15 upper division credits required for the major must be resident credits, as defined above.
 - At least 6 credits required for the minor must be resident credits, as defined above.
- Additional resident credit is granted as specified in the "Alternative Credit Opportunities (p. 88)" section of this catalog.

**To graduate using this resident credit requirement, please contact dgwaudit@isu.edu. (dgwaudit@isu.edu)*

Please note: Resident credits are not synonymous with Idaho State residency definitions for tuition purposes (see the section on "Idaho Residency Requirement for Fee Payment (p. 42)" in the About Idaho State University section of this catalog).

Resident credit for graduate programs is addressed in the Graduate Catalog (<http://coursecat.isu.edu/graduate>).

Degree Credit Requirements

To be eligible for any undergraduate academic or technical certificate, a student must:

- Complete all major requirements with a minimum grade point average of 2.0;
- Meet Resident Credit Requirements as defined above;
- Have an overall ISU cumulative GPA of 2.0; and
- Have a completed and cleared degree audit.

To be eligible for an associate of applied science (A.A.S.) degree, a student must:

- Complete General Education requirements;
- Complete all major requirements with a minimum grade point average of 2.0;
- Meet Resident Credit requirements as defined above;
- Complete 60 credits of coursework;
- Have an overall ISU cumulative undergraduate GPA of 2.0; and
- Have a completed and cleared degree audit.

To be eligible for an associate of arts (A.A.) or an associate of science (A.S.) degree, a student must:

- Complete General Education requirements;
- Complete all major requirements with a minimum grade point average of 2.0;
- Meet Resident Credit requirements as defined above;
- Complete 60 credits of coursework, of which at least 30 need to be academic credits;
- Have an overall ISU cumulative undergraduate GPA of 2.0; and
- Have a completed and cleared degree audit.

To be eligible for a bachelor's degree, a student must:

- Complete General Education Requirements;
- Complete all major requirements with a minimum grade point average of 2.0;
- Meet Resident Credit requirements as defined above;
- Complete 36 credits of upper division coursework;
- Complete 120 credits of coursework, of which at least 60 need to be academic credits;
- Have no more than 60 credits earned through specialized credit or alternate credit opportunities;
- Have an overall ISU cumulative undergraduate GPA of 2.0; and
- Have a completed and cleared degree audit.

Specialized Credit Limitations

Graduation requirements may be met by no more than the number of credits in certain groups as listed below.

- No more than 30% of the program requirements can be fulfilled through credit by examination. **
- No more than 25% of the program requirements can be fulfilled with Experiential Learning Assessment. ***
- No more than 8 credits allowed from Professional Development workshop courses.
- No more than 8 credits allowed from ensemble participation in music. (Music majors may count 8 credits of ensemble participation in music as free electives.)
- No more than 8 credits allowed from physical activity courses (including all PEAC courses, DAAC courses, and MSL 1110 /PEAC 1110)

Catalog Requirements

Candidates for associate or bachelor's degrees may choose to fulfill the degree requirements stated in any one catalog in effect during their enrollment at Idaho State University, subject to the stipulations below. Regardless of the catalog the student chooses, deviations may be required for accreditation, licensing, or State Board of Education mandates.

1. Candidates for bachelor's degrees must use a catalog in effect the year they matriculate or any later year. For students who change majors, this is determined by the department in consultation with the student at the time they are accepted into the major.
2. The catalog cannot precede the academic year in which the student graduates by more than 8 years.
3. Selection of a catalog for certifying graduation requirements must be approved by the department's chair, program director, or designee.
4. Students with a gap in enrollment at the university for eight semesters or more (including summers) from the date of last attendance must meet degree requirements as outlined in the catalog in effect at the date of their

re-enrollment, or any subsequent catalog published prior to their degree conferral date.

5. If a major program is discontinued by the university and the State Board of Education, students enrolled will be assisted in transferring to an equivalent program in the state. If there is no similar program within the state, currently enrolled students will be permitted to complete the program in accordance with existing graduation requirements.

Graduation with Distinction

Idaho State University recognizes outstanding student scholarship in baccalaureate and associate degree graduates by granting the following distinctions:

- Summa Cum Laude (gold honor cord): to those having an Idaho State University GPA of 3.950-4.00
- Magna Cum Laude (silver honor cord): to those having an Idaho State University GPA of 3.750-3.949
- Cum Laude (white honor cord): to those having an Idaho State University GPA of 3.500-3.749

Acknowledgement of academic achievement at commencement will be based on the student's cumulative ISU GPA at the conclusion of the term prior to the ceremony. Distinction recorded on the diploma and final official transcript, however, will be based on all semesters completed.

Revocation of Degrees

The university reserves the right to revoke a previously granted degree, either for failure to satisfy the degree requirements (i.e., a mistake in granting the degree), or for fraud or other academic misconduct on the part of the recipient discovered or acted upon after the degree has been awarded.

Second Associate Degree

Earning two associate degrees concurrently: A student who has satisfied the individual requirements of each degree will be allowed to graduate with two degrees or more concurrently.

Earning a subsequent associate degree (when previous degree has been awarded by ISU): A former student who previously earned an associate degree from Idaho State University may be awarded a second associate degree from ISU by:

1. Completing a minimum of 8 additional credits at ISU.
2. Satisfying all courses required by the department beyond the general education requirements fulfilled by the first degree.

Earning a subsequent associate degree (when previous degree has not been awarded by ISU): A student with an associate degree from an external accredited institution may be awarded a second associate degree from ISU by:

1. Completing a minimum of 15 resident credits at ISU.
2. Satisfying all courses required by the department beyond the general education requirements fulfilled by the first degree.

A student with an academic associate degree (A.A., A.S.) earned from a regionally accredited institution in Idaho will be considered to have met Idaho State University's General Education Requirements when seeking a second associate degree. Degrees earned from regionally accredited institutions outside the state of Idaho may be reviewed for General Education waiver consideration.

Second Bachelor's Degree

Earning two baccalaureate degrees concurrently: A student who has satisfied the individual requirements of each degree will be allowed to graduate with two degrees concurrently.

Earning a subsequent bachelor's degree (when previous degree has been awarded by ISU): A former student who previously earned a baccalaureate degree from Idaho State University may be awarded a second baccalaureate degree from ISU by:

1. Completing a minimum of 15 additional credits at ISU.
2. Satisfying upper division requirements in the major field as required by the department in which the second degree is to be granted.
3. Satisfying lower division courses required by the department beyond the general education requirements fulfilled by the first degree.

Earning a subsequent bachelor's degree (when previous degree has not been awarded by ISU): A student who previously earned a baccalaureate degree from another accredited institution may be awarded a second baccalaureate degree from ISU by:

1. Completing a minimum of 30 additional credits at ISU.
2. Satisfying upper division requirements in the major field as required by the department in which the second degree is to be granted.
3. Satisfying lower division courses required by the department beyond the general education requirements fulfilled by the first degree.

A student with a bachelor's degree from a regionally accredited institution in Idaho will be considered to have met Idaho State University's General Education Requirements when seeking a second bachelor's degree.

Majors

Each degree-seeking student admitted to Idaho State University will indicate a choice of major on the admissions application. All students are expected to contact their major department and formally declare their major and request an advisor assignment as early as their first semester of attendance and before completing 58 credits. Students wishing to change their major must contact the department that offers the desired major. Some majors require a separate and subsequent application to the department. In those cases, the student will only be able to choose a pre-major and should contact the department for details of the program admissions requirements and process.

Minors

Minors at Idaho State University are optional unless specified as required by the major. More than one minor may be declared and earned. To declare a minor, the student must contact the appropriate department. A student declaring a minor must do so before or at the time of application for graduation.

A minimum of 18 semester hours with a minimum grade point average of 2.0 is required in the minor. Not all departments offer a minor. Those that do may require more than the minimum number of credits. Consult departmental catalog entries for more information.

***See Alternative Credit Opportunities in the Academic Information section of this catalog for specific information.*

*****Idaho State University follows Northwest Commission on Colleges and Universities (NWCCU) (<http://www.nwccu.org>) policies 2.C.3 and 2.C.7 in awarding credit for prior experiential learning.**

Individualized Degree Programs

The degrees described below are administered by faculty committees that approve course choices designed to meet the student's goals.

- Bachelor of Applied Science
- General Studies
 - Associate of Arts in General Studies
 - Bachelor of Arts in General Studies

Placement into English and Mathematics Courses

Composition Sequence Placement

ENGL 1122 Academic Writing for Non-Native Speakers of English, Part I

Placement: IELTS* 5.0 – 5.5 or TOEFL 35-59 (iBT)

Placement for Intensive English Institute (IEI) students only:

Recommendation from the IEI; equivalent of average grade of C-, C, or C+ in the final session of the Institute's prescribed course of study.

ENGL 1123 Academic Writing for Non-Native Speakers of English, Part II

Placement: IELTS 6.0 – 6.5 or TOEFL 60-93 (iBT) OR completion of ENGL 1122 with C- or better

Placement for IEI students only: Recommendation from the IEI; equivalent of average grade of B-, B, or B+ in the final session of the Institute's prescribed course of study.

ENGL 1101P Writing and Rhetoric I Plus

Placement: High School GPA below 2.50 OR completion of ENGL 1123 with C- or better OR completion of ENGL 0090 with an S.

Placement for IEI students only: Recommendation from the IEI; equivalent of average grade of A- or A in the final session of the Institute's prescribed course of study. International Students will need to consult the Chair, Department of English and Philosophy, concerning placement into ENGL 1101P.

ENGL 1101 Writing and Rhetoric I

Placement: High School GPA of 2.5 or above, ACT English 18 - 24, Compass 68 - 94, or SAT (old version) 450 - 560, SAT (new version) 26-31, or ELTS 8.0 – 9.0 or TOEFL 110 – 120 (iBT), OR completion of ENGL 1123 with C- or better OR completion of ENGL 0090 with an S.

Placement for IEI students only: Recommendation from the IEI; equivalent of average grade of A- or A in the final session of the Institute's prescribed course of study.

ENGL 1102 Writing and Rhetoric II

Placement: Students with an ACT English score of 25-30, an SAT score (old version) of 570-690, or an SAT score (new version) of 32-36 receive three (3) ENGL 1101 (<http://coursecat.isu.edu/undergraduate/academicinformation/placementintoenglishandmathematicscourses>)-equivalent credits and register for ENGL 1102 (<http://coursecat.isu.edu/undergraduate/academicinformation/placementintoenglishandmathematicscourses>). Students with a Compass score of 95-99 register for ENGL 1102; credit for ENGL 1101 will be assigned with a grade of "Satisfactory" upon passing ENGL 1102 with a grade of C- or better, unless they already have a transcribed grade for ENGL 1101. The Compass Test cannot be used to replace an earned grade in a course for purposes of GPA calculation.

* Overall IELTS band score of 5.5 or at least 5.0 on each of the subtests; and so forth for each level.

Students admitted to the university without IELTS, TOEFL, ACT, or SAT scores or without having IEI completion grades must consult the Chair, Department of English and Philosophy, for placement.

Students with an ACT score over 30 or SAT score (old version) of 700 or higher or SAT score (new version) of 37 or higher receive three (3) ENGL 1101-equivalent credits with a grade of "Satisfactory" and three (3) ENGL 1102-equivalent credits with a grade of "Satisfactory" unless they already have a transcribed grade for the course.

Advanced Placement Options

1. Transfer students who have taken a three-credit freshman-level course in expository or argumentative writing which is equivalent to Idaho State University's ENGL 1101 or ENGL 1101P course may proceed to ENGL 1102.
2. Students who have achieved scores of 3 or 4 on the Composition and Literature or the Language and Literature Advanced Placement Examination administered by Educational Testing Service receive a grade of "Satisfactory" and three ENGL 1101 or ENGL 1101P-equivalent credits. Students who receive a 5 on the same test(s) will receive two grades of "Satisfactory" and three ENGL 1101-equivalent credits and three ENGL 1102-equivalent credits.

Because Objective 1 courses advance acquisition of writing skills important for - academic success, students are encouraged to complete them in a timely fashion. Accordingly, ENGL 1101 or ENGL 1101P should normally be completed during the freshman year, ENGL 1102 by the conclusion of the sophomore year.

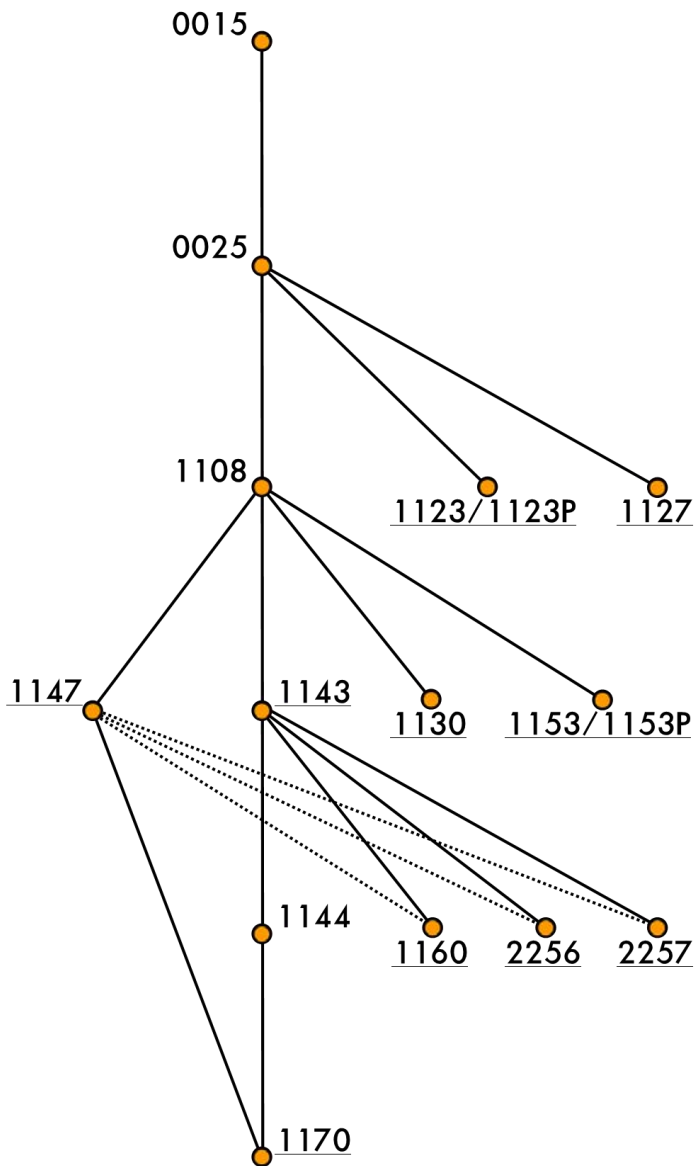
Mathematics

All mathematics courses except MATH 0015 and MATH 0090 have prerequisites. Students place into a course either by completing the prerequisite courses with a grade of C- or better or by achieving appropriate scores on the ACT exam, SAT exam, ALEKS exam, or Compass mathematics placement exam. For placement purposes, prerequisite coursework or placement examinations must have been taken within the last seven years.

MATH 0090 is intended for students with some math background where a student needs to fill in mathematical gaps. It is a self-paced alternative to any subsequence of MATH 0015, MATH 0025, MATH 1108, MATH 1143, and MATH 1144. Starting with MATH 0015, students sequentially complete modules and then take a mastery exam for each course. Scoring 90% or above on each exam earns placement equivalent to having passed the corresponding course. MATH 0090 is intended for students with enough mathematics background to work independently. Credits earned do not count toward graduation credits. The course is intended to be used as an alternate pathway to the traditional math sequence shown below.

The following diagram shows the chain of prerequisites for basic mathematics courses.

Figure 1. Objective 3 Prerequisite Tree



Courses that fulfill Objective 3 are underlined. The dotted lines indicate that MATH 1147 also fulfills the prerequisite for any course that has MATH 1143 as a prerequisite. Students should plan their mathematics coursework according to their intended majors. Some majors, for instance, require MATH 1153, and others require MATH 1160. Students who will take calculus must be especially careful to determine whether MATH 1160, Applied Calculus, or MATH 1170, Calculus I, is appropriate. Taking one after the other counts as a repeat and provides no further credit toward graduation. Students place into courses higher than MATH 0015 by achieving any one of the following scores on their ACT, SAT, ALEKS, or Compass placement examinations (Objective 3 courses are **bolded**):

MATH	ACT	SAT (old)	SAT (new)	Compass	ALEKS
0015 ¹	---	---	---	---	0-13
0025 ²	16	390	430		14-29
1123P ²	16-18	390-450	430-490		14-29
1153P ³	17-22	420-530	460-550		30-45
1108 ³	17	420	460	--	30-100
1123, 1127 ⁴	19	460	500	--	30-100
1130, 1143, 1153 ⁵	23	540	560	--	46-100
1147	23	540	560		50-100
1144, 1160, 2256, 2257 ⁶	27	620	640	--	61-100
1170 ⁷	29	650	680	--	76-100

- ¹ There is no prerequisite course for MATH 0015, and no scores are necessary.
- ² A student must pass MATH 0015 or achieve one of the listed test scores to take MATH 0025 or MATH 1123P.
- ³ A student must pass MATH 0025 or achieve one of the listed test scores to take MATH 1108 or MATH 1153P.
- ⁴ A student must pass MATH 0025 or achieve one of the listed test scores to take MATH 1123 or MATH 1127.
- ⁵ A student must pass MATH 1108 or achieve one of the listed test scores to take MATH 1130, MATH 1143, MATH 1147, or MATH 1153.
- ⁶ A student must pass MATH 1143 or achieve one of the listed test scores to take MATH 1144, MATH 1160, MATH 2256, or MATH 2257.
- ⁷ A student must pass MATH 1144 or MATH 1147 or achieve one of the listed test scores to take MATH 1170.

Advising Resources

ISU is committed to providing advising resources for all students and at every stage of their college career.

Student Services (<https://www.isu.edu/tech/departments/student-services>) **College of Technology (COT)**

COT Student Services has a staff of professional advisors to serve students seeking a Certificate, an Associate of Applied Science degree, an Associate of Science degree, or a Bachelor of Science degree in a **professional-technical field**. COT faculty also advise students on discipline-specific topics.

First Year Transition (<https://www.isu.edu/fyt>) **(FYT)**

FYT Instructors/Academic Coaches provide **advising and academic coaching for academic freshman (0-25 credits), as well as all new freshmen with any number of Early College/Dual Enrollment credits**. FYT Instructors/Academic Coaches teach First Year Transition (ACAD 1104), College Learning Strategies (ACAD 1101), College Learning Strategies for Math (ACAD 1103), and Peer Instruction Seminar (ACAD 2220). FYT is located on the Pocatello campus, Rendezvous 323.

Central Academic Advising (<https://www.isu.edu/advising>) **(CAA)**

CAA serves as the coordinator of **general advising services** and supports the ISU community of students, faculty, and staff advisors. CAA has specific advising responsibilities for **academic sophomores (26-57 credits), first semester transfer students, pre-Social Work students, and students on academic probation**.

CAA advisors are located in Pocatello and at the regional campus sites in Idaho Falls, Twin Falls, and Meridian.

Online advising session content and delivery are also managed by CAA (<https://www.isu.edu/advising/oas/>):

1. The Fundamentals of Advising and Registration (FAR) – for first term “New” Freshmen and “Former,” returning ISU students
2. Transfer Fundamentals of Advising and Registration (TFAR) – for all first term Transfer students
3. Probation Workshop (STAR) – for all students on Academic Probation.

College Advising Coordinators

Each ISU college has faculty and professional advising Coordinators who manage the advising function in the college or division, <https://www.isu.edu/advising/meet-your-advisors/departmental-advisors/>.

Faculty Advisors

Each department has professors who serve as Faculty advisors. Students are assigned a **Faculty advisor** for their major or minor program of study, <https://www.isu.edu/advising/meet-your-advisors/departmental-advisors/>.

Credit and Grading Policies

Credit or Credit Hour

The credit, sometimes referred to as semester credit or semester hour, is a unit of academic work. One credit is defined to require fifty minutes in a class each week for one semester (or the equivalent).

One semester credit hour in academic courses requires (1) fifty minutes in class each week for one semester (which assumes approximately twice this amount of time in study and preparation outside the classroom), or (2) approximately two and one-half hours in laboratory each week for a semester, or (3) equivalent combinations of (1) and (2). For purposes of equivalency calculations, a semester is assumed to be sixteen weeks. Short term courses of one week (five days) or more require time in class, laboratory, and preparation equivalent to the above for a total of 45 clock hours per credit.

Credits Allowed per Semester

Students may enroll for up to 18 credits per semester, and may enroll for a larger number with permission of the dean. To be eligible for participation in student activities, a student must be enrolled for at least 8 credits.

The number of credits awarded for a graduate thesis and other courses varies from department to department, and students may spread the registration for those credits over several semesters.

Grade Reports and Transcripts

Final grades are not automatically sent to students at the end of the semester. Students may access final grades electronically by logging on to <https://bengalweb.isu.edu>.

Current students and students who have attended since the Summer 2008 semester may also access their unofficial transcripts at <https://bengalweb.isu.edu>.

Students who wish to order official Idaho State University transcripts will find the latest ordering information on the web at <http://isu.edu/registrar/transcripts/>. Official transcript requests will be processed within 3 to 5 working days, unless there is a financial obligation on record for the student requesting the transcript. For additional information, or if you have specific questions about the process, please email transcriptordering@isu.edu.

Grading System

Idaho State University uses a graduated letter grading system to indicate the instructor's evaluation of a student's performance in a course. These letter grades are converted to a numerical value for computing a student's semester and cumulative grade point averages (GPAs). At the beginning of each course, an instructor should inform students via the course syllabus or other written means of the criteria to be used in evaluating their performance. *There is no campus-wide grading criteria.*

Idaho State University uses letter grades with the four (4) point maximum grading scale. The grade A is the highest possible grade, and a grade of F is considered failing. Plus (+) or minus (-) symbols are used to indicate grades that fall above or below the letter grades. The grades of A+, F+, and F- are not used. For purposes of calculating grade points and averages, the plus (+) increases the grade's point value by 0.3 and minus (-) decreases the grade's point value by 0.3 (e.g., a grade B+ is equivalent to 3.3 and A- is 3.7). A student's work is rated in accordance with the following definitions:

Grade	Value	Description
A	4.00	Excellent Performance
A-	3.70	Excellent Performance
B+	3.30	Good Performance
B	3.00	Good Performance
B-	2.70	Good Performance
C+	2.30	Adequate Performance
C	2.00	Adequate Performance
C-	1.70	Adequate Performance
D+	1.30	Marginal Performance
D	1.00	Marginal Performance
D-	0.70	Marginal Performance
F	0.00	Unacceptable Performance
X	0.00	Stopped Attending

Courses in which any A, A-, B+, B, B-, C+ or C grade is earned are always acceptable toward an undergraduate program and graduation requirements unless specifically excluded for a particular course, program, or degree. Courses in which a C-, D+, D or D- grade is earned are acceptable towards graduation requirements unless otherwise noted. No credits are awarded for any course in which an F grade is earned. A grade of C+, C, C-, D+, D, D-, or F is considered failing for students pursuing graduate level programs or degrees.

Other Grade Symbols

Other grading symbols used are: I - Incomplete; IP - Thesis work "in progress;" W - Withdrawal after the close of the registration period; P or NP - the Pass or No pass option; S or U, for Satisfactory/Unsatisfactory performance; and X for no basis for grade. Each of these grades has special conditions which are described below.

Incomplete Grades

An incomplete grade, I, may be awarded only as a final grade and only at the discretion of the instructor. To be eligible for an incomplete grade, a student must have satisfactorily completed a substantial portion of the course. No grade points are awarded for a course in which an Incomplete grade is earned.

The instructor must complete a Course Completion Contract that stipulates the assignment(s) required to finish the course and the allowable time period. No student will be allowed more than one year to complete the required assignment(s). Both the student and the instructor must sign the contract, a copy of which is to be given to the student. The instructor retains a copy and a third copy is kept on file by the department head. Upon the student's timely satisfaction of the Course Completion Contract, the instructor will fill out a Change of Grade Form and send it to the Registrar.

Students should NOT re-register for a course in which an incomplete grade has been assigned. If the Registrar does not receive a Change of Grade Form within a one-year time period following the recording of the Incomplete, the Registrar's Office will automatically convert the Incomplete to an F. Only in extreme circumstances will a student be allowed an extension of the time stipulated by the instructor. A normal petition process may be used for those circumstances that would extend the allowable time period beyond one calendar year following the recording of the Incomplete grade.

Pass/No-Pass Grades

P/NP grades are given in courses taken under the pass/no-pass option. This option is offered as an inducement for students to take courses outside their major curriculum. The following restrictions apply: the option applies only to undergraduate courses; the option must be declared using a schedule change card (<https://www.isu.edu/media/libraries/registrar/ScheduleChangeCard2013.pdf>) signed by the instructor and the department no later than the last day to add or drop courses; credits earned under the option will not satisfy specific graduation requirements except that they may be counted towards total credits required; students taking a course under this option must comply with the established prerequisites or obtain the permission of the instructor; students may not register for more than one P/NP course per semester.

No credits are awarded for any course in which an NP grade is earned.

Satisfactory/Unsatisfactory

S/U grades are awarded in such courses as student teaching and special projects to which the regular performance grades are not applicable. The use of S/U grades must be specifically approved by the University Curriculum Council. All students in such courses are graded either S or U. There is no method for incorporating these grades into a student's grade point average. No credits are awarded in any course for which a U grade is earned.

X Grade

An instructor can give an X grade when a student has not attended or stops attending, therefore giving the instructor no basis to calculate a grade for the student. The X grade is equivalent to an F. No credits or grade points are awarded in any courses for which an X grade is reported.

Withdrawal Grades

A student may drop a course within the add/drop period; no transcript entry will reflect his/her ever having been in the course.

From the end of the add/drop period to the end of the withdrawal period, a student may withdraw at his/her option. After the withdrawal period, a student may withdraw from individual courses only by the procedure described in the section covering withdrawal procedures. In both of these two cases, a W grade will be recorded, and no grade points will be awarded.

If a student simply ceases to attend classes without formally withdrawing from the university, an F or an X grade will be recorded for each affected class. A student may be withdrawn from a course or receive a reduced grade as a result of disruptive classroom behavior.

Information about add/drop periods and withdrawal periods can be found on the Academic Calendar (<http://isu.edu/registrar/calendars/academic-calendar>). Information on withdrawing from classes can be found in the Withdrawal Procedures (p. 80) section of this catalog.

Midterm Grades

Instructors are required to report all grades in lower-division courses at midterm, including A, B, C, D, F, S, U, NP (not passing), X, NB (no basis to grade) to help improve student retention. Instructors are encouraged to report midterm grades for upper-division courses as well. Midterm grades are not recorded on the student's transcript and are not used in grade point average computations.

Grade Point Average

A grade point average (GPA) is computed each semester by dividing the sum of the products of grade points and credits for each course by the sum of the credits for the courses. Numerical grade points for each course credit are assigned as shown earlier, on a scale in which an A is 4.00 points and an F is 0.00 points.

For purposes of calculating grade points and averages, the plus (+), if present, increases the grade's value by .3 and minus (-) decreases the grade's value by .3 (e.g., a grade B+ is equivalent to 3.3 and A- is 3.7).

An accumulated grade point average (Accum. GPA) is computed by the same process, but the student's entire record is covered by the computation.

To maintain "academic satisfactory progress" and avoid probation and/or academic dismissal, a student must maintain a minimum Idaho State University GPA of 2.0.

Repeating Courses

A course in which an F grade is earned must be repeated if that course is required for graduation. Courses in which a D grade is earned must be repeated if the major department so requires. Also, a student may elect to repeat a course provided he/she has not completed a course for which that course was a prerequisite. If a course is repeated at ISU, the latest grade is used in computing grade point average unless the description includes language indicating the maximum number of credits for which the course may be repeated.

Credits and Grades for Transfer Courses

Idaho State University recognizes, accepts and requires all college-level coursework attempted at institutions with regional accreditation status be submitted for credit evaluation.

Idaho State University honors the originating institutions course level classifications (i.e. lower division, upper division, professional technical, remedial etc.)

Coursework classified as correspondence, extension, ELA or credit by exam by the issuing institution is subject to reclassification in accordance with ISU governing authorities.

Coursework taught under a different system from ISU's will be converted (ex. quarter hours) to semester hours.

Transferred coursework is subject to university limits as defined in the degree requirements section of the catalog. Where there is a question as to whether transferred courses satisfy specific department requirements, a review of the transfer work will be conducted in consultation with the department concerned.

Transfer course grades are converted to the ISU equivalent with no corresponding grade point average.

The university reserves the right to reclassify repeated credit in accordance with its own policy governing the acceptance and limitation of such credit.

Transfer grades and credits are not used in calculating the Idaho State University grade point average. Students who repeat an ISU course elsewhere may use the transfer course in accordance with ISU's repeat course policy but the ISU grade point average will not be impacted.

Awarding of Credit from Non-Accredited Institutions

The process for considering possible transfer credits and recognizing undergraduate degrees granted by non-accredited colleges and universities is as follows:

The student must petition the appropriate academic department at Idaho State University. In addition to formal evaluation of the request, the department may require competency verification.

In the petition, the student must explain how s/he wishes to deviate from university policy. Some scenarios include:

- a) wishing to have certain courses from the non-accredited institutions substitute for courses at Idaho State University that fulfill General Education Objectives;
- b) a request to have designated courses from the non-accredited institution substitute for Idaho State University courses that fulfill requirements in the student's major;
- c) a request that an entire degree from a non-accredited institution be recognized as equivalent to that earned from an accredited institution.

Academic Renewal Policy

The purpose of this policy is to allow undergraduate students who are returning or transferring to Idaho State University after having been away from college for a number of years a chance for a fresh start. Idaho State University has a petition process for one-time-only use in which the student may request that consecutive terms of course work be disregarded in calculating the GPA for graduation. To apply, a student must file an Academic Renewal petition with the dean of his/her college. Eligibility for the program will be subject to the following conditions:

1. A minimum of three (3) years will have elapsed since last enrollment at an institution of higher education before petition may be filed.
2. Applicants must have a previous cumulative ISU GPA of less than 2.00.
3. This policy will not be used for individual courses.
4. The petition to be filed by the student will specify consecutive terms of undergraduate courses on the transcript to be disregarded.
5. Academic renewal may be awarded one time only.
6. Academic renewal shall not apply to any credits earned for a completed, prior academic degree.
7. Before the petition may be filed, the student must have completed a semester or semesters of an additional 12 credit hours of course work at Idaho State University with a minimum grade point average of 2.5 or at least 24 credit hours of course work with a minimum grade point average of 2.00.
8. Upon approval of the petition, the student's permanent official academic record will be suitably annotated to indicate that no work taken during the disregarded term(s) may apply toward the computation of credits and grade points, academic standing, and graduation requirements. However, all work will remain on the records, ensuring an accurate academic history.
9. Students should be aware that this policy MIGHT NOT BE ACCEPTED at transfer institutions. Academic Renewal granted elsewhere is not transferable to Idaho State University. Idaho State University conditions must be met.

Academic Integrity and Dishonesty Policy

Policy #4000 (<https://www.isu.edu/policy/academic-affairs>)

Effective Date: July 27, 2015

Revised: August 3, 2016

Annual Review: August 3, 2017

I. INTRODUCTION

“The core principles of integrity create a foundation for success in all of life’s endeavors. Integrity in academic settings is a fundamental component of success and growth in the classroom. It prepares students for personal and professional challenges as well as providing a blueprint for future fulfillment and success” (The International Center for Academic Integrity, “About Integrity,” <http://www.academicintegrity.org/ica/Integrity-1.php>, downloaded on 03-26-14).

II. POLICY STATEMENT

Academic integrity is expected of all individuals in academe. Behavior beyond reproach must be the norm. Academic dishonesty in any form is unacceptable.

- A. Academic dishonesty includes, but is not limited to, cheating and plagiarism.
- B. This policy applies to all forms of university educational activities, including but not limited to, classroom, lab, and online formats.
- C. Instructors are encouraged to include specific information in the course syllabus on academic integrity and dishonesty guidelines specific to the course format and evaluation activities, as well as the link to this policy.
- D. Students should not assume that any materials or collaborative learning activities are authorized unless explicitly stated by the instructor in the course syllabus.

III. AUTHORITY AND RESPONSIBILITIES

The Academic Dishonesty Policy is administered and supervised by Academic Affairs. Instructors are responsible for addressing suspected incidents of academic dishonesty within their respective courses. Deans serve as appellate officers when students challenge the findings and outcomes determined by instructors. Revisions and modifications to this policy are managed by the Office of the Provost and Vice President for Academic Affairs.

IV. DEFINITIONS

- A. **CHEATING** is defined as using or attempting to use materials, information, or study aids that are not permitted by the instructor in examinations or other academic work.
Cheating includes, but is not limited to:
 1. Obtaining, providing, or using unauthorized materials or devices for an examination or assignment, whether verbally, visually, electronically, or by notes, books, or other means.
 2. Acquiring examinations or other course materials, possessing them, or providing them to others without the explicit permission of the instructor. This includes buying or selling an assignment or exam, or providing any information about an examination in advance of the examination.
 3. Taking an examination in place of another person or arranging for someone else to take an examination in one’s place.

4. Submitting the same work or substantial portions of the same work in two different classes without the explicit prior approval of the instructor.
5. Fabricating information for any report or other academic exercise.
6. Fabricating or misrepresenting data.
7. Copying down answers when provided during course testing or other standardized testing and giving them to other students who have not taken the test. This includes using smartphones to photograph and transmit restricted test materials.
8. Removing the test instrument or test information from the testing room or other location without the instructor’s explicit permission.
9. Assisting another student without the instructor’s permission.
10. Deceiving instructors or other university officials about academic work.
11. Altering grades on one’s own or another student’s work.
12. Offering money or other remuneration in exchange for a grade.

B. PLAGIARISM is defined as presenting or representing another person’s words, ideas, data, or work as one’s own.

Plagiarism includes, but is not limited to:

1. The exact duplication of another’s work and the incorporation of a substantial or essential portion without appropriate citation.
2. The acts of appropriating creative works or substantial portions in such fields as art, music, and technology and presenting them as one’s own.

The guiding principle is that all work submitted must properly credit sources of information. In written work, direct quotations, statements that are paraphrased, summaries of the work of another, and other information that is not considered common knowledge must be cited or acknowledged. Quotation marks or a proper form of identification shall be used to indicate direct quotations. Students should be aware that most instructors require certain forms of acknowledgement or references and may evaluate a project on the basis of proper form.

C. ACADEMIC as used in this policy is synonymous with “scholastic” and refers to school-related endeavors, whether the school is vocational or academic.

D. INSTRUCTOR/FACULTY MEMBER as used in this policy is defined as a person who is responsible for the teaching of a class or laboratory or other instruction. These terms include professors regardless of rank, instructional staff, graduate assistants, visiting lecturers, and adjunct, affiliate, or visiting faculty.

V. PROCEDURES TO IMPLEMENT

A. Academic Integrity and Dishonesty

1. **Penalties for Academic Dishonesty**
 - a. Any penalty imposed by an instructor for academic dishonesty shall be based on the instructor’s professional judgment and wisdom.
 - b. Penalties that may be imposed by the instructor are:

- i. **Written Warning:** The instructor informs the student in writing that further academic dishonesty will result in other penalties being imposed.
 - ii. **Re-submission of work:** The instructor may inform the student in writing that he or she requires that the work in question be redone to conform to proper academic standards or may require that a new project be submitted. The instructor may specify additional requirements in writing.
 - iii. **Grade reduction:** The instructor may lower a student's grade or assign a failing grade for a test, project, or other academic work. The instructor will notify the student, department chair, dean, Office of the Vice President for Student Affairs, and Office of the Registrar in writing when these actions are taken.
 - iv. **Fail the Course:** The instructor may assign an "F" for the course. The instructor will notify the student, department chair, dean, Office of the Vice President for Student Affairs, and Office of the Registrar in writing when this action is taken.
- c. Penalties that may be imposed at the University level are:
- i. **Suspension from the University:** This is the administrative withdrawal of the student found responsible by the University. The student is suspended for a length of time, determined by the University Academic Dishonesty Board, which may depend upon the circumstances that led to the sanction. This action is permanently recorded on the student's transcript.
 - ii. **Expulsion from the University:** This is the most severe penalty for academic dishonesty and may be imposed by the University Academic Dishonesty Board for extreme or multiple acts of academic dishonesty. Once expelled, the student is not eligible for readmission to the University. This action is permanently recorded on the student's transcript.
- d. Both an instructor penalty and University level penalty may be imposed (see Section B. Academic Dishonesty Board).
- e. Withdrawal from a course does not exempt a student from penalties for academic dishonesty. In no case should an instructor recommend that a student withdraw from the course to avoid charges and/or penalties.

2. Procedures for Determination of Academic Dishonesty and Imposition of Penalties

- a. The instructor of the course is responsible for investigating each suspected incident of academic dishonesty. The instructor is encouraged to consult with the Office of the Provost and Vice President for Academic Affairs or the Office of the Vice President for Student Affairs for guidance on adhering to the policy process, as needed. Students alleged to have violated this policy may consult with the Office of the Vice President for Student Affairs for guidance on rights and responsibilities regarding the Academic Dishonesty Policy.

When the instructor witnesses such an incident, has evidence of one, or is informed of one by a witness, the instructor shall proceed as follows:

- i. The instructor may intervene and shall gather evidence to see whether further action is necessary.
- ii. If the instructor feels that a penalty of a grade reduction or failing the course is warranted, he/she shall discuss the incident with his/her

department head. If, after this meeting, the instructor decides not to impose penalties, then no further action is necessary.

- iii. If, after the meeting, the instructor decides to proceed, he/she shall inform the student or students involved (orally and in writing) of the evidence of academic dishonesty and request a meeting with the student(s). Students will be given at least three (3) school days to schedule an appointment with the instructor. The instructor shall then meet with the student, consider the student's response (which should be given orally and in writing), and collect any available evidence and testimony from witnesses. In cases of suspected plagiarism, the instructor may ask the student to supply the references used and the student must comply with such a request.
 - iv. On the basis of this information and the preponderance of the evidence, the instructor may decide to impose a penalty. If the penalty is only a written warning or a written demand that work be resubmitted, then no further action is necessary.
 - v. If, after those steps, the instructor concludes that academic dishonesty has occurred, he/she shall inform the accused student in writing within 10 school days following their face to face meeting. The notification should include sanctions (resubmit assignment, fail assignment or exam, etc.) or state that an incident report is being filed by the instructor that will include sanctions imposed.
 - vi. If the instructor decides to impose a penalty of grade reduction or failing the course, he/she shall prepare a written incident report (a sample incident report template is included herein – see Addendum). The report shall include the student's name, the date of the incident, a description of the incident and the available evidence, and the instructor's decision regarding penalties. The report shall state the specific penalties imposed—grade reduction or failing the course. When more than one student is involved in academic dishonesty for a course assignment, the instructor will prepare individual reports and ensure that all students' FERPA rights are protected.
 - vii. The instructor shall keep a copy of the report and send copies to:
 1. *the student,*
 2. *the chairperson (or designee) of the department in which the instructor holds an appointment,*
 3. *the chairperson (or designee) of the department in which the student is a major,*
 4. *the dean (or designee) of the college in which the instructor holds an appointment,*
 5. *the dean (or designee) of the college in which the student is a major,*
 6. *the Office of the Vice President for Student Affairs, and*
 7. *the Office of the Registrar. A copy of the incident report shall be placed in the student's permanent file in that office.*
 - viii. The instructor shall also inform the student of the procedures for appeal outlined in Section 5 below.
- b. For incidents that occur near the end of the semester, the instructor will issue an incomplete grade to the accused student(s) while the investigation and resolution of the accusation continues. Once the

instructor has rendered a decision and imposed a penalty, if any, the grade will be updated.

- c. Any student who is found responsible for academic dishonesty and receives “Fail the Course” penalties for two separate incidents is subject to university suspension or expulsion. When a student receives a second “Fail the Course” penalty, the Office of the Registrar shall notify the Office of the Provost and Vice President for Academic Affairs and the Office of the Vice President for Student Affairs. The VPSA’s Office will then convene the Academic Dishonesty Board. This Board will then decide whether the student should be suspended, expelled, or neither, following the procedures in Section B below.

3. Procedures for Students’ Appeal of Imposed Penalties

- a. The student may appeal penalties for academic dishonesty to the dean (or designee) of the college in which the course was offered. This is the final level of appeal for penalties of re-submission of work, grade reduction, or failing the course that are imposed for academic dishonesty by the instructor.
- b. The appeal to the dean (or designee) must be filed, in writing, no later than fifteen (15) business days after the student has received written notification of the instructor’s final decision and penalties regarding academic dishonesty.
- c. When a student files an appeal, the dean (or designee) shall set a date for a formal hearing to discuss the allegations and penalties. He/she shall chair and conduct the hearing and keep a written record of it. The hearing shall include the instructor, the student, the chairperson (or designee) of the department in which the instructor holds an appointment, the chairperson (or designee) of the department in which the student is a major, and the dean (or designee) of the college in which the student is a major. In addition, the student may bring one support person (faculty, staff, or student), but this individual does not participate in the hearing. Within five (5) business days following the hearing, the dean shall issue a final determination in writing of responsibility or non-responsibility based upon a preponderance of the evidence.
- d. If the formal hearing results in the student being exonerated of all charges of academic dishonesty, the dean (or designee) of the college in which the course was offered shall prepare a letter of memorandum stating that the student has been exonerated and requesting that all records about the alleged act of dishonesty be destroyed, other than the dean’s own record of the hearing.

The dean (or designee) shall send copies of the letter of memorandum to:

- i. the instructor,
- ii. the student,
- iii. the chairperson of the department in which the instructor holds an appointment,
- iv. the chairperson of the department in which the student is a major,
- v. the dean of the college in which the student is a major,
- vi. the Office of the Vice President for Student Affairs, and
- vii. the Office of the Registrar. That office shall remove all records about the alleged dishonest conduct from the student’s permanent file.

- e. If the student is not exonerated of all charges, then the dean (or designee) of the college in which the course was offered shall send copies of the written record of the formal hearing to parties (i – vii above).
- f. If the penalty is reduced or rescinded as a result of the hearing, the dean (or designee) of the college in which the course was offered shall direct the Registrar to make any changes in the student’s grade.
- g. Penalties for academic dishonesty may not be challenged through the scholastic appeals process.
- h. The decision of the dean (or designee) is final.

4. Procedures for Implementation of Penalties at the University Level

- a. Authority to assign the penalties of suspension or expulsion from the University rests with the Academic Dishonesty Board. See Section B below.

B. Academic Dishonesty Board

1. Charge and Scope of Academic Dishonesty Board

- a. The Academic Dishonesty Board considers significant infractions of academic honesty. It is the sole body with authority to assign the University level penalties of suspension or expulsion for academic dishonesty. Cases coming before the Board must be fully documented by evidence. The Board shall not hear matters subject to the jurisdiction of the Student Conduct Board or general academic complaints that should be referred to a dean or the Provost and Vice President for Academic Affairs. Its decision is final and may not be challenged through the scholastic appeals process.

2. Procedures

- a. Notice from the Registrar that a student has received two “Fail the Course” penalties for academic dishonesty violations activates the Board (see section A.4.g. on notice from the Registrar). An instructor may also ask the Academic Dishonesty Board to consider suspension or expulsion when he/she deems the incident of academic dishonesty to be significant and warranting a university level penalty. Such a request shall be in writing and shall include complete documentation, including all documents presented at any formal hearing before the dean. Finally, an instructor or administrator may ask the Academic Dishonesty Board to consider university suspension or expulsion of a student with multiple penalties for academic dishonesty. Such a request shall again be in writing; it must include the reasons for recommending suspension or expulsion and shall include supporting documents.
- b. The Academic Dishonesty Board will consist of seven voting members:
 - i. A faculty member selected by the Faculty Senate to serve as chair,
 - ii. The ASISU Vice President, who serves as vice chair,
 - iii. Three members chosen by the Academic Dishonesty Board chair from a pool of faculty members selected by the Faculty Senate, and
 - iv. Two members chosen by the Academic Dishonesty Board vice chair from a pool of students selected by the ASISU Senate.
 There shall also be a non-voting member from the Office of the Vice President for Student Affairs.
- c. Once the Board is constituted, the Office of the Vice President for Student Affairs shall give the instructor's request, along with supporting

documents, to the Academic Dishonesty Board Chair. The Office of the Vice President for Student Affairs will notify the student, outlining the procedures, informing the student that he/she may review the materials in the VPSA's Office, and allowing the student a reasonable amount of time to present to that office any documents in his/her defense.

- d. The Academic Dishonesty Board Chair shall then set a date for a formal hearing, one that allows the student sufficient time to prepare a defense and allows Board members sufficient time to review all the materials held in the Office of the Vice President for Student Affairs, including any submitted by the student. The student may choose one ISU student, staff, or faculty member to accompany her/him to the hearing. However, this person does not directly participate in the hearing. In addition, the person who initiated the Board review (Registrar, instructor, or administrator) shall be invited to give testimony.
- e. All members of the Board must be present at the hearing. However, neither the student nor the person who initiated the review need be present for the Board to act.
- f. After the formal hearing, the Board will vote on whether to suspend or expel the student, or neither. A majority of the Board members must vote for suspension or expulsion for such an action to occur. The length of any suspension shall also be determined by majority vote.
- g. The Board Chair will send a written record of the Board's decision to the Vice President for Student Affairs, who will be responsible for relaying the decision to the student, the Registrar, and the Provost and Vice President for Academic Affairs. The Office of the Vice President for Student Affairs will hold all materials related to the case permanently.
- h. The Board's decision shall be implemented by the Provost and Vice President for Academic Affairs (or designee).
- i. When the Board imposes suspension, the Office of the Registrar shall record "Suspension for Academic Dishonesty" on the student's permanent transcript. When the Board imposes expulsion, "Expulsion for Academic Dishonesty" shall be recorded on the student's permanent transcript.

Idaho State University gratefully acknowledges the International Center for Academic Integrity and the University of Alaska Anchorage for resources and ISU faculty for comments and suggestions that greatly assisted in providing updates to this policy.

Academic Standing

Good Academic Standing

Students are considered to be in Good Academic Standing at Idaho State University when their cumulative Idaho State University GPA is a 2.0 or above.

Academic Warning and Academic Probation

Academic standing is calculated once at the end of the semester. At that time, undergraduate students whose cumulative Idaho State University GPA does not meet a minimum of 2.0 will be placed on Academic Warning. Students on Academic Warning are required to complete the Online Probation Workshop (<http://isu.edu/advising/online-advising-sessions->) and are expected to meet with their academic advisor of record prior to registering for classes.

Students on Academic Warning will remain on Academic Warning as long as: 1) their semester GPA in subsequent semesters is at least a 2.0, and 2) their cumulative GPA remains below a 2.0. If students are on Academic Warning and their semester GPA in the next semester of record is below a 2.0, they will be placed on Academic Probation. Students on Academic Probation are required to complete the Online Probation Workshop (<http://isu.edu/advising/online-advising-sessions->), and are expected to meet with their academic advisor of record prior to registering for classes. Students on Academic Probation who do not earn at least a 2.0 in their next semester of record will be dismissed from the university. For policies regarding readmission after academic dismissal see Petition Policies (p. 79).

Students on Academic Warning or Academic Probation who attain a cumulative GPA of 2.0 or higher are removed from warning or probation.

Non-Degree Seeking Status

Each non-degree-seeking student admitted to Idaho State University will declare himself/herself as such by selecting the non-degree-seeking application for admission. A non-degree-seeking student may change their status to that of a degree-seeking student by complying with admissions criteria for degree-seeking students (detailed in the Undergraduate Admission (p. 49) section of this catalog). A maximum of 32 credits may be earned by non-degree-seeking students.

Course Policies

All-University Courses

Departments in colleges of the university may offer any of the following courses subject to adequate student interest. The following course numbers are regarded as “reserved” for these uses.

0198P, 0298P, 1198P, 2298P, 3398P, 4498P Professional Development Workshop 0-3 credits. New methods and opportunities to enhance and supplement skills. Subject to the approval of the dean of the student’s college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option. May be repeated. May be graded S/U. Courses and course instructors are approved by the appropriate department chairs and college deans. Idaho State University maintains responsibility for the academic quality of all programs and courses through management and supervision by Idaho State University faculty and administrators. Credit for these courses is established using the same methods as a normal semester course (i.e. 15 contact hours equals one credit.). Course assignments and tests should be used for outcomes assessment and should be clearly linked to the course goals.

0199, 0299, 1199, 2299, 3399, 4499 Experimental Courses 1-6 credits. The content of these courses is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times.

4493 Senior Thesis 1-4 credits. Supervised by a committee of at least two faculty members, the thesis must be approved by the chairperson(s) of the department(s) involved. The thesis topic may be interdisciplinary, with up to six credits total conferred by one or more departments. May be repeated for up to 6 credits. PREREQ: Senior standing and permission of chairperson(s) involved.

4497 Professional Development 1-3 credits. A course for practicing professionals (certified Idaho teachers) aimed at the development and improvement of skills. May not be applied to undergraduate or graduate degrees. May be repeated. May be graded S/U.

Attendance

Students are expected to attend all meetings of classes in which they are registered. Students who do not attend any sessions of a class during the first week and have not made prior arrangements with the instructor may be dropped from the class by the instructor to make room for students who are interested in adding the class.

No student may be absent from the campus in connection with extracurricular activities more than sixteen college instructional days per semester. No one extracurricular activity may take students away from the campus more than twelve college instructional days.

Auditing Courses

An auditor is a person who is permitted to attend a course as an observer without participating in class discussions or class activity or submitting work for a grade. Students must pay the part-time credit hour fee to audit a course. This fee is waived in the case of full fee paying students. A final grade of AU is recorded at the time of registration. Changing from audit to credit is not allowed at any time.

To register for audit, a student must submit a completed Schedule Change Card to the Office of the Registrar during the published Add/Drop period for the term. In a full semester course, students may not change from credit to audit after the 10th

day of class. In an 8 week course, students may not change from credit to audit after the 5th day of class.

Schedule Change Cards are available at <https://isu.edu/media/libraries/registrar/ScheduleChangeCard2013.pdf>.

Course Numbering

Courses numbered 0000-0099 do not apply towards an academic degree.

Courses numbered 0100-0999 are technical courses. RCET courses numbered 3000-4999 are both upper division and technical.

Courses numbered 1000-2999 are lower division courses, while courses numbered 3000-4999 are upper division courses.

Courses numbered 55xx, 66xx, 77xx and 88xx are graduate level courses and are for students admitted into the Graduate School only.

Courses numbered 99xx are currently reserved for the Doctor of Pharmacy (Pharm.D.) program.

Course Scheduling

To assist with your academic planning, courses in the Undergraduate Catalog are designated according to the semester they are usually offered. Unanticipated faculty vacancies and academic program changes may affect future course scheduling. Therefore, students should always contact the academic department to verify future course offerings, especially when specific courses are needed for graduation.

The following letters which appear after the course descriptions indicate the anticipated course scheduling:

- F = Fall Semester, every year
- S = Spring Semester, every year
- Se = Sequential; a series of courses is presented until all have been taught.
- Su = Summer Semester, every year
- EF, ES, ESu = Even-numbered years, Fall, Spring, or Summer Semester
- OF, OS, OSu = Odd-numbered years, Fall, Spring, or Summer Semester
- D = Students should contact the department to ask when this course will be offered.
- R1 = Course is rotated every year, either Fall or Spring
- R2 = Course is rotated every two years, either Fall or Spring
- R3 = Course is rotated every three years, either Fall or Spring

Cross-listing

Any university program leading to an academic degree that approves courses taught by College of Technology faculty for inclusion in the academic curriculum may cross-list the course(s) using the academic department’s prefix and the College of Technology department’s prefix.

Prerequisites and Corequisites

Courses showing the abbreviation “COREQ” require simultaneous registration with each course named as a corequisite.

The abbreviation “PRE-or-COREQ” means that each course named may have been taken prior to or may be taken concurrently with the course for which it is required.

Courses showing the abbreviation “PREREQ” require the courses named as prerequisites to have been taken previously.

Special Course Fees

A special course fee is an additive fee on top of the standard per credit hour fee which may be charged to students enrolled in a specific course for materials and/or activities required for that course. Special course fees, or changes to such fees, are established and become effective in the amount and at the time specified by the chief executive officer or provost, and must be prominently posted so as to be readily accessible and transparent to students, along with other required course cost information. These fees shall be reported to the State Board of Education upon request.

At Idaho State University, the recognition for and establishment of course fees is a responsibility assigned to individual academic units. This effort must be consistent with all elements of the State Board of Education Policy on Special Course Fees as outlined below. Guidelines for establishing or removing course fees are available at the Academic Affairs Web-page: <http://www.isu.edu/academicaffairs/faculty-support/>.

Oversight of course fees and the assurance of implementation of State Board of Education Policy with respect to special course fees for example, the required 3-year review and maintenance of special course fees, their use, and accounting practices associated with these fees (i.e. sections c), d), and e) below) are a specific job assignment and responsibility of the University Business Officer assigned to each academic unit having localized jurisdiction over these fees.

Those course fees not reviewed and reapproved after a 3-year period shall automatically be removed by the University Business Officer.

Petition Policies

An undergraduate student may petition the appropriate college dean or committee for consideration of problems of curricula or admission which are not covered by stated procedures. Curricular petitions must: 1) include a recommendation from the undergraduate student’s advisor, 2) a recommendation by the chair of the department offering courses in the subject field or by a special committee overseeing the requirement, and 3) catalog copy of descriptions of courses transferred from other institutions if the course is to be considered in a test of course equivalency. All copies of the petition are to be advanced to the Registrar’s Office for action after all signatures are affixed. Decisions may require several weeks, and notice of the result will be mailed to the undergraduate student. An undergraduate student may petition for:

- **Readmission following a dismissal.** Undergraduate students with extenuating circumstances that warrant a review of the dismissal status may petition the Readmission Review Board (RRB) located in Central Academic Advising. Students that have been academically dismissed may not return to ISU for at least one full Fall or Spring semester. To be considered for readmission to ISU, all dismissed students will:
 - Complete an ISU admissions application,
 - Submit official transcripts from other universities attended,
 - pay the current application fee, regardless of the number of semesters since their last enrollment,
 - Submit a readmission petition and personal statement accompanied by relevant documentation from appropriate sources,
 - Be admitted under the catalog year in effect at the time of readmission, if readmission is granted.

The RRB will be guided in its decision by evidence of academic potential and readiness to handle the curriculum in a satisfactory

a) Special course fees shall be directly related to academic programming. Likewise, special course fees for career technical courses shall be directly related to the skill or trade being taught.

b) Special course fees may only be charged to cover the direct costs of the additional and necessary expenses that are unique to the course. This includes the costs for lab materials and supplies, specialized software, cost for distance and/or online delivery, and personnel costs for a lab manager. A special course fee shall not subsidize other courses, programs or institution operations.

c) A special course fee shall not be used to pay a cost for which the institution would ordinarily budget including faculty, administrative support and supplies.

d) Special course fees shall be separately accounted for and shall not be commingled with other funds; provided however, multiple course fees supporting a common special cost (e.g. language lab, science lab equipment, computer equipment/software, etc.) may be combined. The institution is responsible for managing these fees to ensure appropriate use (i.e. directly attributable to the associated courses) and that reserve balances are justified to ensure that fees charged are not excessive.

e) The institution shall maintain a system of procedures and controls providing reasonable assurance that special course fees are properly approved and used in accordance with this policy, including an annual rolling review of one-third of the fees over a 3-year cycle.

Reference: <https://boardofed.idaho.gov/board-policies-rules/board-policies/financial-affairs-section-v/v-r-establishment-of-fees-04-2016/>

manner; evidence of motivation to pursue an educational goal; evidence of corrective measures undertaken by the undergraduate student. Readmitted undergraduate students will have stipulations placed upon their readmission which may include: repeating courses previously taken, limiting the number of credits attempted, enrolling in specific courses, having regular follow-up with an advisor or faculty member, receiving specific assistance from the Career Center or other ISU resources, and/or participating in specified study labs or help groups. The deadline for petitions is July 15 for Fall semester and November 15 for Spring semester. Students may not be readmitted to the summer semester. Decisions reached by the RRB are final.

- **Substitution of departmental requirements.** An undergraduate student may petition to substitute courses in lieu of departmental requirements. The course or courses the undergraduate student wishes to substitute must be approved by the departmental chairperson.
- **Substitution of the General Education requirements.** An undergraduate student who transfers from another institution may petition to have courses with similar content but different titles than those offered at Idaho State University substituted for courses listed in the General Education requirements. Petitions must be approved by the Provost.

Withdrawal Procedures

Before the last day to add or drop courses in a semester or session, students may drop and add classes freely. No entry will be made on a student's transcript for classes dropped during this period.

After the last day to add or drop courses, students may withdraw from a class or from all classes until the last day to withdraw from the semester or session. Check the Academic Calendar (p. 30) for the withdrawal date for each semester or session. The time in which withdrawals are allowed is called the Withdrawal Period. A grade of W is recorded on the student's transcript for each course from which he or she withdraws.

Before Withdrawal Deadline (see Academic Calendar (p. 30) for dates):

To initiate a withdrawal from a class prior to the deadline, a student may use BengalWeb (<https://bengalweb.isu.edu>). In extreme cases where the student does not have the ability to access BengalWeb, contact the Office of the Registrar (<http://isu.edu/registrar>) for assistance.

To withdraw from the university (withdraw from all classes) prior to the deadline, the student may use BengalWeb (<https://bengalweb.isu.edu>) and withdraw from all classes. In extreme cases where the student does not have the ability to access BengalWeb, contact the Office of the Registrar (<http://isu.edu/registrar>) for assistance. Students are encouraged to meet with an advisor before withdrawing completely.

Other Policies

Closed/Finals Week Policy

Any final examination must be conducted during the officially scheduled time slot except in laboratory courses or sections where the final examination may be conducted during the last regularly scheduled class session. Any exception to this policy may be allowed only on an individual student basis, to be arranged - between the professor and the student.

Other required tests or quizzes on which the professor bases any part of the course grade are prohibited during the 7 calendar days immediately preceding the first day of final examinations week except in performance sections, night classes, 8-week courses, Saturday courses, and sessions during the summer semester.

Graduate-level courses and activities are exempt from this closed week and final exam policy.

Final Examinations

Regular final examinations are held during an examination period at the end of the semester in accordance with a schedule published by the Registrar. They shall not be rescheduled outside of the period, nor to a different time within it. No examination shall be longer than the scheduled time. Special examinations may be arranged for individual students within the examination period.

Saturday Classes–Vacation Policy

Saturday Classes will recognize the following holidays during the Fall and Spring semesters: Fall–Labor Day and Thanksgiving weekends; Spring–the Saturday at the end of Spring Break. Saturday classes will be held on the Saturdays prior to all other Monday holidays, and on the Saturday at the beginning of Spring Break.

After Withdrawal Deadline (see Academic Calendar (p. 30) for dates):

After the deadline, all withdrawals are limited to those involving exceptional, documented circumstances beyond the student's control that prevented the student from withdrawing in a timely manner. Students should contact the dean of the college in which the student is enrolled to begin the process (College of Technology students should contact the Student Services Office (<https://www.isu.edu/tech/departments/student-services>)). The dean will follow the same procedure used in the petitioning process for considering extraordinary academic issues.

Medical Withdrawal

For information regarding Medical Withdrawal, please see the Student Handbook (<https://www.isu.edu/media/libraries/student-affairs/Student-Handbook-1.pdf>) or contact Student Affairs. (<https://www.isu.edu/studenta>)

Refunds after Withdrawal

For refund information, see ISU's Refund Policy and Refunds for Exceptional Circumstances Policy in the Expenses (p. 16) section of this catalog. If you wish to initiate an appeal for refund of fees, please contact Financial Services at (208) 282-2287.

Registration

Questions about academic regulations or registration should be directed to:

Office of the Registrar
921 S 8th Ave Stop 8196
Pocatello ID 83209-8196
(208) 282-2661
mailto:reginfo@isu.edu (reginfo@isu.edu)
http://isu.edu/registrar/

New Students

You must apply for and be accepted for admission. Contact the Central Academic Advising Office to complete the Fundamentals of Advisement and Registration (Mandatory Advising) session (online at <http://www.isu.edu/advising/>) and for assistance with registration.

Transfer Students

You must apply for and be accepted for admission. After notification of admittance, you must complete the online Transfer Fundamentals of Advisement and Registration session at <http://www.isu.edu/advising/>; upon completion, you should make an appointment with your major advisor.

Former Students

If you are a student who has attended within the last eight semesters, you are eligible to register for classes without readmission. However, your program of study may require separate departmental readmission. Also, if any prior restrictions exist, they must be cleared. You are required to provide the Office of Admissions with current address, telephone number, major, and a transcript from any university or college you have attended and have not previously reported. You are encouraged to contact the Office of Admissions to indicate your intent to reenroll. Former students NOT enrolled for eight semesters must reapply. Once accepted, make an appointment with your major advisor.

Continuing Students

Students who major within the College of Science and Engineering, the College of Pharmacy, or selected departments within the Kasiska Division of Health Sciences, must see their advisor before attempting to register.

All students are expected to know academic requirements and policies. They are also expected to assume major responsibility for planning their individual programs of study in accordance with university and major requirements and policies, as described in the Undergraduate Catalog.

Academic Calendar

The Academic Calendar is available online at: <http://www.isu.edu/registrar/calendars/academic-calendar/> or from the ISU homepage at <http://www.isu.edu>. Choose "Quick Links;" then choose "Calendars/Schedules."

Students are expected to know the Add/Drop and Withdrawal deadlines for the semester and any sessions within a semester.

Class Schedule

The class schedule is available online and may be accessed by students and non-students alike by navigating as follows: From the ISU homepage at <http://www.isu.edu>, choose "Quick Links;" then choose "Class Schedule." Enrolled students should access the class schedule through BengalWeb. For more detailed information about accessing the Class Schedule and registering for classes, visit

the TigerTracks Knowledge Base (<https://tigertracks.isu.edu/TDCClient/KB/ArticleDet?ID=52826>).

Registration Schedule

Registration activity can be performed 24 hours a day through BengalWeb (<https://bengalweb.isu.edu>). The dates that registration opens for a particular semester can be found at: <http://www.isu.edu/registrar/calendars/registration-dates/>.

Class Level

Sophomore: 26 credit hours

Junior: 58 credit hours

Senior: 90 credit hours

Part-Time/Full-Time Student Status

To be considered a full-time student for academic and financial aid purposes, an undergraduate must be enrolled for 12 or more credits. Graduate students are full time when enrolled for 9 or more credits.

For financial aid purposes, an undergraduate may qualify for half-time financial aid when enrolled for 6-8 credits, and three-quarter time financial aid when enrolled for 9-11 credits (for a semester or any of the sessions within the semester).

Please contact ASISU to determine eligibility for ASISU elective or appointed office.

Please note: in order to graduate in four years, an undergraduate student must complete an average of 30 credits per year and all required coursework. Students paying by the credit hour pay "full-time" fees if taking 10 or 11 credits. However, full-time status depends on the credit hours attempted, not the fees actually paid.

Applying to Graduate

Please refer to the Degree Requirements (p. 62) and General Education (p. 57) pages for specific program requirement information.

Graduation Application

Students on track to graduate are strongly encouraged to complete a graduation application at least one full semester before their anticipated graduation term. Refer to the Academic Calendar (p. 30) for graduation application deadlines.

All students seeking a degree or certificate must apply for a graduation term. Formally submitting an application for graduation begins the faculty recommendation process to the governing authorities responsible for formally conferring degrees and certificates.

- The Office of the Registrar coordinates with departments, and communicates with students about the application, to ensure the student is on track to meet all graduation requirements by the anticipated graduation date.
- Students work with their academic advisor to meet *all degree, major, and/or minor* requirements. Approved adjustments to the program of study must be formally recorded on the student's official degree audit record.

How To Apply

- On-line: <https://bengalweb.isu.edu>

Processing Fee

- All candidates will have a non-refundable \$20.00 diploma and processing fee applied to their student account per application.

Additional Deadlines

Transfer Work

- All pending transfer coursework taken in a student's graduating term must be reported to the ISU graduation staff in the Office of the Registrar.
- All transfer coursework applied to the program must be completed by the end of the ISU term in which the student plans to graduate. See Academic Calendar (p. 30) for dates.
- Transfer in-progress (TIP) grades will prevent the awarding of a degree or certificate. Students with TIP grades must have an official transcript sent directly from the issuing institution to the ISU Office of the Registrar with final grades posted before a degree or certificate can be awarded.
- Transfer coursework taken during the graduating term must be received by ISU no later than three weeks after the date of graduation. A final grade must be posted for the degree to be formally awarded in that ISU posting period. ISU awards degrees three times a year: May, August, and December.

Incomplete Grades

- All incomplete (I) or in-progress (IP) grades received in ISU courses must be cleared prior to awarding of degrees.

<https://www.isu.edu/registrar/graduation/>

Degrees, diplomas, or certificates may not be granted unless all degree requirements are fulfilled. A certificate or degree awarded in error, or upon fraudulent claims, will be withdrawn immediately and the student record corrected accordingly.

Student Success Center

Overview

The Student Success Center provides services and programs that are essential to student academic and intellectual development at Idaho State University. We encourage all students to realize their potential as prepared, responsible, and self-actualized members of an increasingly complex, diverse, and global society. The Student Success Center houses the following academic services and programs: Bengal Bridge, First Year Transition, Intensive English Institute/English for Speakers of Other Languages, Student Opportunity Development, TRiO Access and Opportunity Programs, University Honors Program, and University Tutoring.

Pocatello:

Rendezvous Building, 3rd Floor
(208) 282-3662
isu.edu/success
success@isu.edu (ssc@isu.edu)

Idaho Falls:

Center for Higher Education, Room 220
(208) 282-7925

Mailing address for both locations:

921 S 8th Ave Stop 8010
Pocatello ID 83209-8010

Bengal Bridge

Rendezvous Building, 3rd Floor, Room 323
(208) 282-3662
<https://www.isu.edu/bengalbridge/>
bengalbridge@isu.edu

Bengal Bridge is a summer program for recently graduated high school students who want to start college early and earn a semester's worth of credits toward their degrees. Bengal Bridge provides a low-cost, supportive environment focused on helping students transition to college.

First Year Transition

Rendezvous Building, 3rd Floor, Room 323
(208) 282-3662
isu.edu/fyt
bengalbridge@isu.edu

The First Year Transition (FYT) program offers one-to-one academic coaching for all first-year students as well as academic success courses designed to maximize student success. FYT encourages all first-year students to enroll in First Year Transition ACAD 1104. This program empowers students to take ownership of their own learning, become engaged in the university community, and utilize a range of strategies to meet their chosen goals.

Intensive English Institute/English for Speakers of Other Languages

Rendezvous Building, 3rd Floor, Room 338
(208) 282-3662
<https://www.isu.edu/iei/>
iei@isu.edu

The Intensive English Institute (IEI) and English for Speakers of Other Languages (ESOL) program provide academically-oriented English language

instruction, tutoring, and cultural support for international students before and during their degree programs. All services are provided by instructors with advanced degrees, Teaching English to Speakers of Other Languages (TESOL) credentials, and relevant experience.

Student Opportunity Development

Rendezvous Building, 3rd Floor, Room 333
(208) 282-3662
isu.edu/studentopportunity
opportunities@isu.edu

Student Opportunity Development prepares and connects students with experiential learning opportunities that allow them to apply their academic skills outside of the classroom. Student Opportunity Development works directly with undergraduate students to help them find internships around the state, along with opportunities for volunteer work, international experiences in coordination with our Study Abroad program, and service learning to combine community service with academic activity.

TRiO Access and Opportunity Programs

Museum Building, 4th Floor, Room 446
(208) 282-3242
isu.edu/trio
trio@isu.edu

TRiO Access and Opportunity Programs prepare first generation and/or limited income students to enroll in and successfully complete post-secondary programs ranging from certificate programs all the way through doctoral degrees.

University Honors Program

Rendezvous Building, 3rd Floor, Room 304A
(208) 282-1383
isu.edu/honors
honors@isu.edu

The University Honors Program is an academic learning community that offers a broad range of enriched educational experiences, typically found at a small private college, for bright, talented, and ambitious undergraduate students. The main goals of the program are:

1. Interdisciplinary Scholarship – developing the ability to integrate knowledge to express well-constructed insight and originality of thought through multidisciplinary courses and methodologies.
2. Intellectual and Creative Engagement – using the appropriate methodology and theoretical framework that includes design, synthesis, and interdisciplinary research.
3. Citizen Scholar – addressing real-world problems and finding ethical solutions, a process that culminates in reflective civic engagement, respect for diversity, and service-oriented action.

The University Honors Program offers interdisciplinary, theme-driven course sequences. These courses are designed for students who are motivated to develop their critical and creative thinking in a more personalized atmosphere than may be expected in non-honors lower division courses. Honors courses are offered in small classes (25 maximum enrollment) by campus faculty, deal with broad and/or interdisciplinary issues, and confront some aspect of the human condition. Innovative teaching and assignments are encouraged, and interaction with faculty and class members is lively. Please check isu.edu/honors for this year's core

curriculum themes and additional information. Questions about the University Honors Program and courses may be directed to the address above.

The University Honors Program Curriculum fulfills many of the General Education Requirements.

University Tutoring

Rendezvous Building, 3rd Floor, Room 304A
(208) 282-1383
isu.edu/tutoring
cat@isu.edu

Content Area Tutoring

The Content Area Tutoring (CAT) Program provides small-group tutoring in all academic areas except writing and math, which are handled through the Writing and Math Centers. Students may request tutoring in courses from anthropology to zoology at the CAT offices in Pocatello's Rendezvous Center (REND 323, 282-3662) or Idaho Falls (CHE 220, 282-7925).

Tutoring support for College of Technology students is available at the Resource Center on the 2nd floor of the the Roy F. Christensen Building, Room 262. For more information, contact Angie Lion at (208) 282-3208. A request form is available at <https://www.isu.edu/tech/tutoring/>.

Math Center

The Math Center provides drop-in tutoring services to help students on the Pocatello (REND 327) and Idaho Falls (CHE 220) campuses understand concepts in undergraduate math and math-related courses. Tutors ask questions to clarify what students know and how the concept has been taught to them. They help students see what they have been doing incorrectly, and they work other examples with students to suggest approaches to the problems that students are doing.

Writing Center

The Writing Center provides individualized tutoring in Pocatello (REND 323), Idaho Falls (CHE 220), and online to help students improve the quality of their writing for undergraduate and graduate courses in all subjects. Tutors are available by appointment to work with students at any stage of the writing process, from generating ideas to revising full drafts. They assist with organization and development of ideas for particular audiences and purposes, as well as with issues of punctuation and usage.

ACAD Courses (p. 498)

Academic Opportunity Programs

Rendezvous Building, 3rd floor

Central Academic Advising

JoAnn Hertz, Director of Advising

Museum Building, Room 307
921 S 8th Ave Stop 8054
Pocatello ID 83209-8054
(208) 282-3277
<https://www.isu.edu/advising/>
advinfo@isu.edu

Central Academic Advising (CAA) serves as a general advising resource and support service for ISU students, faculty, and professional advisors, and as a specialized resource for academic sophomore level students (26 to 57 credits),

921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
(208) 282-3933
isu.edu/success
success@isu.edu (ssc@isu.edu)

Philosophy and Mission

Academic Opportunity Programs believes that student success is built on the pillars of self-efficacy and engagement. Students who take ownership of their own learning and make meaningful connections across campus and beyond are more likely to continue their education successfully, as well as contribute positively to the success of others. In the process, they build the skills they need to encounter new academic and career challenges.

The mission of Academic Opportunity Programs is to maximize student success by developing students who take ownership of their own learning, are engaged in the university community, and can utilize a range of strategies to meet their chosen goals ethically and effectively.

Program Description

Academic Opportunity Programs seeks to support the development of academic strategies, facilitate successful transitions to progressively more complex university environments and expectations, and promote the development of leadership skills and community connections. Coursework focused on academic strategies builds students' abilities to identify, analyze, evaluate, and apply academic information ethically and effectively. Coursework focused on transition generates critical awareness of university culture and helps students successfully navigate the changing expectations they experience in the university environment. Coursework focused on leadership development enhances individual student strengths and interpersonal skills by connecting students to key components of the university and our local community. All coursework enhances students' ability to communicate effectively in a variety of academic and professional contexts. Together, these four interrelated foci are designed to enhance academic engagement and self-efficacy, supporting students' efforts to identify and meet their own goals in the university setting and beyond.

Goals

In line with this mission, and with the intention of supporting students in developing self-efficacy, Academic Opportunity Programs has four goals:

- Goal 1. To prepare students at all levels with effective academic strategies that will help them to succeed in their academic coursework.
- Goal 2. To develop students' ability to critically engage with the expectations they encounter as they progress within a university environment.
- Goal 3. To develop students' leadership skills.
- Goal 4. To develop students' interpersonal communication skills.

first semester transfer students, and pre-Social Work majors. Undecided students and students on Academic Warning and Academic Probation also receive support from CAA. CAA advisors provide a wide array of assistance including academic success strategy development, campus resource information and referral, campus policy and procedure clarification, course schedule development, and degree planning guidance.

Online Advising Sessions

Completion of an online advising session is required before course registration is allowed for academic degree seeking freshmen and transfer students prior to their first semester of attendance at Idaho State University. Former ISU students (who have not enrolled in classes for the past 8 semesters, including summers) also complete the online advising session before course registration. The Fundamentals of Advising and Registration (FAR) session (for freshmen and former students) and the Transfer (TFAR) session (for transfer students) can be found on the Central Academic Advising website: <https://www.isu.edu/advising/oas/>.

Online advising sessions at Idaho State University are not intended to replace direct advising with faculty or professional advisors.

University Honors Program

Rendezvous Building, Room 304A
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
Office: (208) 282-3662
honors@isu.edu

Overview

As the only Honors Degree granting institution in Idaho, the University Honors Program (UHP) at Idaho State University is an academic program for students who aspire to a more engaging and enriching collegiate experience. The program synthesizes the idea of a structured learning community within an interdisciplinary curriculum. Each class is fashioned into small cohorts and led by extremely dedicated and passionate professors who devote themselves to the development of their students.

Goals

1. Interdisciplinary Scholarship – the ability to integrate knowledge to express well-constructed insight and originality of thought through multidisciplinary courses and methodologies.
2. Intellectual and Creative Engagement – using the appropriate methodology and theoretical framework that will include design, synthesis, and interdisciplinary research.
3. Citizen Scholar – addressing real-world problems and finding ethical solutions, a process that culminates in reflective civic engagement, respect for diversity, and service-oriented action.

The University Honors Program offers opportunities for broader, deeper, and more complex learning experiences for students through interdisciplinary, theme-driven course sequences. Courses are designed for students who are motivated to develop their critical and creative thinking in a more personalized atmosphere than may be expected in typical courses. These courses are offered in small class sizes (25 maximum enrollment), deal with broad and/or interdisciplinary issues, and confront some aspect of the human condition.

The University Honors Program is bigger than academics alone. The University Honors Program (UHP) offers students a living/learning community, leadership and civic engagement opportunities, individualized advising, undergraduate research, a group of committed scholars, and a community that values and recognizes the whole person. Please check www.isu.edu/honors for additional information.

The University Honors Program curriculum fulfills many of the General Education Requirements. Honors sections of courses are offered on a rotating basis and are dependent on departmental approval.

Admission

Admission to the University Honors Program (UHP) is competitive. Please check <http://www.isu.edu/honors> for admission requirements.

Transfer students from honors programs at other institutions are welcome to apply to the University Honors Program, and honors credits will be evaluated. Students who wish to enter the program in their sophomore or junior years should consult with the Honors Program Director and/or Coordinator.

Student Progress

Students admitted to the Honors Program are required to maintain a cumulative grade point average of 3.2. Students must show evidence of continuous progress toward their degrees. Students dropping below the 3.2 requirement have one probationary semester to raise the GPA before facing dismissal from the program.

Graduation from the University Honors Program

Students have two primary Honors curriculum paths depending upon the course selections and curriculum decisions made by individual students. Students may complete either an Honors Distinction or an Honors Degree. The Honors Distinction requires 19 Honors credits completed during a Bachelor's or Associate's coursework. The Distinction is awarded at the completion of the Bachelor's degree. The Honors Degree requires 32 Honors credits and includes an Honors thesis/project. The Honors Degree is noted on the student's diploma, transcript, and at commencement.

Requirements for Distinction in the University Honors Program

Code	Title	Credits
Honors coursework		18
(Honors coursework may include any combination of the following: H designated courses e.g., ECON 2202-H, CHEM 1111-H), Honors specific courses (e.g., HONS 1101, HONS 1102), and Honors Contract courses (see description below).		
HONS 3391	Honors Seminar	1
Total Credits		19

Requirements for Degree in the University Honors Program

Code	Title	Credits
Honors Coursework		23
(Honors coursework may include any combination of the following: H designated courses (e.g., MGT 3312-H, CHEM 3301-H), Honors specific courses (e.g., HONS 2220, HONS 3393), and Honors Contract courses (including Independent Problems (e.g., EE 4481) or Senior Thesis (e.g., BIOL 4493), also see description below).		
Upper Division Honors Coursework		6
HONS 3391	Honors Seminar (HONS 3391 must be taken twice.)	2
HONS 3393 or HONS 4493	Introduction to Honors Thesis Honors Senior Thesis or Project	1-3
Defense of Honors Thesis		
Total Credits		32-34

Interdisciplinary Seminars

University Honors students take at least one Honors Seminar (HONS 3391), and students seeking an Honors degree must take two Honors Seminars. These seminars seek to introduce a specialty topic in a creative manner. Instructors are challenged to teach a topic in their field of expertise in a way that makes the

material understandable from a wide range of majors. In general, at least two Honors Seminars will be offered each semester.

Honors Contract Courses

Honors Contract courses are departmental courses offered under an “Honors Contract” between the student and instructor. An “Honors Contract” course requires that the student and instructor agree, on a case-by-case basis, to a set of requirements for the course. All Honors Contracts must be approved by the Honors Program Director. In general, any academic class can be contracted with the proper permission from the instructor and UHP Director.

Honors Project or Thesis

Each University Honors Degree student is required to complete an honors project or thesis at the senior level in the department of his or her major or minor.

The capstone project (1-6 credits) requires the University Honors student to prepare a project proposal for review by a departmental Honors Advisor. The project could be a research-based senior thesis or another appropriate project. The completed project is presented in a public forum and defended before a committee comprised of the Honors Advisor within the major department, another faculty member in the department, and the director of the University Honors Program. Appropriate public venues for the presentation include but are not limited to: a departmental seminar, the Idaho State University Undergraduate Research Symposium, an honors regional or national conference, or a discipline specific conference.

Honors Degrees

Graduates of the University Honors Program who complete 32 honors credits will receive one of the following degrees:

- Honors Bachelor of Arts
- Honors Bachelor of Science
- Honors Bachelor of Business Administration
- Honors Bachelor of Fine Arts
- Honors Bachelor of Music
- Honors Bachelor of Music Education

HONS Courses (p. 655)

Alternative Credit Opportunities

Students at Idaho State University have the opportunity to earn undergraduate credit for prior learning through a wide variety of means:

Credit by Examination

- College Entrance Examination Board Advanced Placement Program (AP)
- College Level Examination Program (CLEP)
- Credit through the Defense Activity for Non-Traditional Education Support (DANTES)
- Credit by Challenge Examination

Other Alternative Credit Opportunities

- Credit for Military Service (JST)
- Experiential Learning Assessment (ELA)
- Study Abroad

Credits earned through any of the above means affect total credits toward a particular degree but generally do not impact the student's grade point average. Grades for all said credits, except challenge, are recorded as Satisfactory (S). The student is responsible for providing Idaho State University with an official copy of grades/scores from the appropriate educational, testing, or reporting agency.

When the credit awarded is dependent upon evaluation by Idaho State University faculty, such as Experiential Learning Assessment and Challenge, credit will be counted as resident credit; that which is standardized or not evaluated by Idaho State University faculty will be counted as non-resident credit.

College Entrance Examination Board Advanced Placement Program (AP)

Idaho State University affirms the principle of advanced placement and acknowledges the accomplishments of students who have taken college-level courses in high school. The university encourages participation in the College Entrance Examination Board Advanced Placement Program.

Advanced Placement Examination credit will not be posted on an official Idaho State University transcript to other agencies or institutions until the student is accepted to Idaho State University. Credit from Advanced Placement is classified as non-resident credit.

Advanced Placement Scores Required for Credit

Idaho State University will grant credit for approved AP exams and scores. An "S" grade is entered on the student's record for credit earned in this way. Credit for AP examinations when an official score report from College Board is received. Please see <https://isu.edu/registrar/credit-by-exam/> for information regarding what course credit will be awarded for each AP score accepted by ISU.

College Level Examination Program (CLEP)

Elective credit only is granted toward graduation for achievement of satisfactory scores on any of the four CLEP general examinations: humanities, natural science, mathematics, and social science/history.

With the exception of Objective 9, subject-area CLEP examinations may satisfy specific objectives in the General Education Requirements at the discretion of the departments whose courses satisfy those objectives. Similarly, at the discretion of the department, credits earned on the CLEP subject-area examinations may be allowed toward that department's major program.

An "S" grade is entered on a student's record for credit hours earned through CLEP examinations. Transfer students need to submit official CLEP score reports for Idaho State University evaluation. CLEP credits cannot be granted for college courses previously taken. Credit from CLEP is classified as non-resident credit. Please see <https://isu.edu/registrar/credit-by-exam/> for information regarding what course credit will be awarded for each CLEP score accepted by ISU.

Information including costs may be obtained from the website <http://www.isu.edu/ctc/> or by contacting the Counseling and Testing Center at Idaho State University at (208)-282-2130.

Counseling and Testing Center,
Graveley Hall, 3rd Floor South
921 S 8th Ave Stop 8027
Pocatello, ID 83209-8027

Credit by Challenge Examination

Enrolled Idaho State University students may obtain credit by course-specific examinations only with permission of the department and the college. Other relevant policies are as follows:

- Students may challenge a course through examination by 1) **obtaining approval** through petition, and 2) **passing** the challenge examination.
- Students must procure the petition from the office of the dean of the college of their major.
- If the petition to take the examination is approved, students must pass the examination at the level required by the course in order for challenge credits to be awarded.
- A student may sit for a challenge examination only in a course in which s/he has not yet registered. Students may not receive credit by challenge examination either for courses already completed or for courses that are prerequisite to courses already completed.
- Only one challenge examination for the course in question is allowed.
- When a challenge examination is taken, whatever grade is earned is recorded. Should the grade from a challenge examination be undesirable to the student, the student may take the course for credit to exclude the challenge grade.
- Credits obtained by challenge examination are not used in determining a semester's credit load or for financial aid purposes in the semester in which the examination is taken.
- Grades obtained by challenge examination are not used in determining grade point average for that semester, but are used in calculating the cumulative grade point average.
- The cost of each credit earned by challenge examination is 33% of the current cost per credit hour, payable to the Idaho State University Cashier's Office **prior to the examination**.
- Credits earned by passing a challenge examination are considered resident credit.

Credit through DANTES

The College Level Examination Program (CLEP) general and specific subject-area examinations administered through Defense Activity for Nontraditional Education Support (DANTES) are treated in the same manner as those taken through the traditional CLEP. Please see <https://isu.edu/registrar/credit-by-exam/> for information regarding what course credit will be awarded for each CLEP score accepted by ISU.

Credit for Military Service (JST)

Students who have earned Military Service credit through a regionally accredited Military school must provide ISU with an official transcript during the admission process.

Students who received military training, recorded on their Joint Service Transcript (JST), may ask to have these training modules assessed and evaluated for college bearing credit using ISU's ELA policy. If a student wishes to initiate this process, please provide the Veteran's Coordinator with an official JST after official acceptance to ISU and an official declaration of a major.

Experiential Learning Assessment

Experiential Learning Assessment (ELA) is an avenue by which a student may be awarded undergraduate credit for work, volunteer, or lived experiences outside of the university curriculum. The program assists in the process for requesting academic credit through the portfolio method. In a portfolio, a student thoroughly describes and documents knowledge gained experientially and also demonstrates how knowledge gained outside the classroom is related to college-level learning.

Eligibility

- Credit by ELA is awarded only for experiential learning in subject areas and curricula offered at ISU.
- Student must be currently enrolled at ISU as a degree-seeking student in good academic standing to be considered for ELA credit in a given semester.
- Each college and department may determine which courses, if any, in their curricula may be met through experiential learning portfolios.
- Students must submit petitions and portfolios by the deadlines published on the ELA website.

Application of Credits

- Credit by ELA may be used to meet a maximum of 25% of credits required for an associate or bachelor's degree or an undergraduate certificate.
- Up to 30 credits by ELA can be used toward meeting the graduation requirement of 120 undergraduate credits for a baccalaureate degree. Up to 15 credits by ELA can be used toward meeting the 60 credits required for an associate degree.
- Credit by ELA can be used to meet the graduation requirement for 36 upper-division credits if awarded as upper-division credit.
- Credit by ELA is not allowed toward graduation if it is discovered that the ELA credits are duplicated by specific courses taken before or after ELA has been awarded. The Registrar will correct the transcript to show duplicated ELA credits are not counted toward cumulative credits earned.
- Credit by ELA is considered resident credit.
- Credit by ELA may be used to meet general education requirements.

Process

- Students must submit the ELA Petition form requesting permission to submit a Portfolio to the department and college that house the courses for which the student wants ELA credit, and the petition must be approved prior to preparation and submission of ELA Portfolio. Petition and Portfolio deadlines are posted on the ELA website.
- Each college and department may develop additional policies and procedures to further define their own internal processes for ELA evaluation.
- A single portfolio may include multiple courses from the same department or program, but separate portfolios must be submitted for courses from multiple departments or programs.

- The department and college that house the courses for which the student requests ELA credit determine if the experiential learning demonstrated in the portfolio meets the learning outcomes of those courses.
- If the Portfolio is not approved, the department and college evaluation report must include an explanation.
- A student may request one time only, within 45 business days after ELA credit has been denied, reconsideration of an ELA evaluation by department/college. A revised portfolio addressing the reasons provided for denying credit must be submitted to ELA Coordinator for reconsideration.

Transcription

- Upon official notification of approval of ELA credit from the Dean of the appropriate college, the Office of the Registrar will record the credit with a note identifying the credit as "Experiential Learning Credit by Portfolio."
- The grade posted for ELA credit is "S" for satisfactory. If no credit is awarded, nothing will be added to the transcript regarding the ELA request.

For more information about the ELA process please visit this page: <http://www.isu.edu/academicaffairs/academic-information/Experiential%20Learning%20Assessment>.

Study Abroad

The Idaho State University International Programs Office provides information and assistance to students who wish to augment their education with study outside the United States. Study abroad is a viable option for students to enhance their curriculum and professional prospects. A study abroad program is an excellent way to develop foreign language skills. An international educational experience also helps students gain a competitive edge in the global marketplace. And since many programs are taught in English or located in English-speaking countries, students without foreign language skills may also study abroad in a wide range of disciplines.

Idaho State University participates in a wide variety of quality study abroad programs, providing students access to programs in more than 50 countries. Coursework in these programs is recognized as resident credit at Idaho State University and allows students to use financial aid to support their study abroad. Idaho State University also has cooperative agreements with The University of Plymouth in England, Al Akhawayn University in Morocco, The University of Valencia and The Polytechnic University of Valencia in Spain, Paderborn University in Germany, Kansai Gaidai University and KCP International in Japan, Umea University in Sweden, the University of Burgundy in France, ITESO University in Mexico, InHolland University in The Netherlands, and Universidad ORT in Uruguay.

The International Programs Office assists students in identifying appropriate programs, works with academic advisors and departments in preparation for transfer of study abroad credit, and advises students on financial aid and other related matters. For more information on study abroad and related opportunities, contact the Office of International Programs and Services at (208) 282-4320 or ipomail@isu.edu.

Students may register for Study Abroad credits after their program is approved by an advisor and the International Programs Office. The course description is as follows.

Study Abroad Courses

STUA 2200, STUA 3300, STUA 4400 Study Abroad 12-18 credits each . Pre-arranged, planned courses of study at selected academic institutions outside of the United States. Student is responsible for resident credit arrangements with department(s) and the Office of International Programs and Services prior to

departure. Prefix and course name will be replaced on Idaho State University transcript when study abroad transcript arrives. Graded S/U. F, S, Su

College of Arts and Letters

921 S. 8th Ave., Stop 8087
Pocatello, ID 83209-8087
(208) 282-3204
<http://www.isu.edu/cal/>

Overview

Programs of study in the College of Arts and Letters introduce students to ways of thinking and expression intrinsic to the arts, humanities, and social and behavioral sciences. Students are thereby aided in the development of intellectual skills and personal values which serve them in career planning and lifelong learning. The College is organized into a Division of Fine Arts and Humanities and a Division of Social and Behavioral Sciences.

Curricular offerings in the College lead to Associate of Arts, Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Master of Arts, Master of Fine Arts, Master of Public Administration, Master of Science, Doctor of Arts, and Doctor of Philosophy degrees. Courses leading to these degrees provide an introduction to a variety of academic disciplines and in-depth specialization in numerous areas. Degrees from programs in the College of Arts and Letters may lead directly to employment in certain occupations or prepare an individual for more advanced study. Students planning to engage in graduate or professional training (for example, law or medicine) should pay particular attention to the admission requirements of the programs that they plan to pursue.

Mission

The College of Arts and Letters offers a variety of academic programs that develop skills in written and oral communication and critical thinking while exploring the diversity and scope of the human experience with both undergraduate and graduate students. Faculty in the College provide instruction and training of superior quality in the fine arts, humanities, social sciences, and behavioral sciences and produce innovative scholarship that advances knowledge. Through student and faculty collaborative endeavors, the College promotes opportunities for research and creative activities that investigate and enrich our shared cultural, economic, environmental, health, political, and social systems.

General Education Requirements

All Associate and Bachelor of Arts and Bachelor of Science degree programs include a general education component intended to provide a depth of knowledge in liberal studies as a necessary background for the specialized knowledge acquired in the discipline in which the student majors. Additionally, the General Education Requirements are intended to assist the student in developing the intellectual flexibility necessary for a fulfilling career.

By meeting these requirements, students develop their critical thinking skills as well as competency in oral, written, and mathematical communication. They also acquire habits of thought traditionally associated with the well-educated person: the ability to analyze and propose solutions to problems; the ability to recognize and assess value structures; and the ability to investigate and understand the literary and expressive arts. The General Education Requirements (p. 57) are described in the Academic Information section of this catalog.

Transfer Students

Students transferring to Idaho State University who seek a bachelor's degree in the College of Arts and Letters should refer to the section, "Transfer Credits toward General Education Requirements" in the Undergraduate Admission (p. 49) section of this catalog.

Major Requirements

In addition to the general education component, all Bachelor of Arts and Bachelor of Science degree programs require a concentration in a departmental major of at least 24 credits, of which at least 16 credits must be in courses numbered 3000 and above. The particular course requirements of the departmental majors in the College of Arts and Letters are outlined under the department headings in the catalog.

The Teacher Education Program

The College of Arts and Letters shares responsibility with the College of Education for the Teacher Education Program. Students may fulfill the requirements of the Teacher Education Program while majoring in a discipline within the College of Arts and Letters. The Teacher Education Program admission and completion requirements are detailed in the College of Education (p. 211) section of this catalog.

Pre-Law Advising

The successful attorney is one who understands how changes within society affect the relationships between and among people. An effective attorney should have an understanding of human behavior; social, political, and economic change; our ecological systems; and the general influence of our philosophical, literary, and historical heritage. Hence, the student with a broad undergraduate preparation and a developed insight into many facets of life attains the best educational preparation for the practice of law.

The student who aspires to attend law school should seek the counsel of one of the Pre-Law Advisors:

Dr. Zac Gershberg, Communication, Media, and Persuasion
Dr. Thomas Eckert, Political Science
Dr. Justin Stover, History
Dr. Russell Wahl, Philosophy

These advisors will help create a pre-law curriculum designed to accommodate the student's major and help him/her prepare for the Law School Admission Test and a career in accordance with the principles discussed above.

College Leadership (p. 92)

College of Arts and Letters Leadership

Turley-Ames, Kandi Jo, Founding Dean, College of Arts and Letters; Professor, Psychology. B.S. 1990, M.S. 1993, Idaho State University; Ph.D. 1996, Washington State University. (1997)

Brumley, Michele R.,* Associate Dean of Social and Behavioral Sciences; Associate Professor, Psychology. B.A. 1999, DePaul University; Ph.D. 2005, University of Iowa. (2007)

Gribas, John S., Associate Dean of Fine Arts and Humanities; Professor, Communication, Media, and Persuasion. B.S. 1984, Montana State University - Billings; M.A. 1990, Ph.D. 1993, University of Kansas. (1996)

College of Arts and Letters Programs

Program Description	Type	Degree		
General Studies, B.A. (p. 127)	Degree	B.A.		
General Studies, A.A. (p. 127)	Degree	A.A.		
English, B.A., Literary Option (p. 121)	Degree	B.A.		
English, B.A., Professional Writing Option (p. 121)	Degree	B.A.		
English, B.A., Creative Writing Option (p. 120)	Degree	B.A.		
Philosophy, B.A., Traditional option (p. 123)	Degree	B.A.		
Philosophy B.A., Pre-law option (p. 123)	Degree	B.A.		
Folklore, Minor (p. 125)	minor			
English, Minor - Literature (p. 124)	Minor			
English, Minor - Professional Writing (p. 124)	Minor			
English, Minor - Creative Writing (p. 124)	Minor			
Philosophy, Minor (p. 125)	Minor			
Philosophy and Religion, Minor (p. 125)	Minor			
Ethics, Minor (p. 125)	Minor			
Biomedical Ethics, Academic Certificate (p. 125)	Certificate			
Anthropology, B.A. (p. 96)	Degree	B.A.		
Anthropology, Minor (p. 97)	Minor			
American Indian Studies, Minor (p. 97)	Minor			
Latino Studies, Minor (p. 98)	Minor			
Linguistics, Minor (p. 98)	Minor			
Shoshoni, A.A. (p. 96)	Degree	A.A.		
Medical Anthropology, Academic Certificate (p. 98)	Certificate			
Art, B.A. (p. 101)	Degree	B.A.		
Art, B.F.A. (p. 101)	Degree	B.F.A.		
Art History, Minor (p. 102)	Minor			
Studio, Minor (p. 102)	Minor			
Communication, B.A., Corporate Communication Emphasis, Advertising Track (p. 106)	Degree	B.A.		
Communication, B.A., Corporate Communication Emphasis, Leadership Track (p. 107)	Degree	B.A.		
Communication, B.A., Corporate Communication Emphasis, Public Relations Track (p. 108)	Degree	B.A.		
Communication, B.A., Multiplatform Journalism Emphasis (p. 109)	Degree	B.A.		
Communication, B.A., Rhetoric and Media Affairs Emphasis (p. 109)	Degree	B.A.		
Communication, B.A., Visual Communication Emphasis, Design Track (p. 109)	Degree	B.A.		
Communication, B.A., Visual Communication Emphasis, Photo Media Track (p. 111)	Degree	B.A.		
Communication, B.A., Visual Communication Emphasis, Video Track (p. 113)	Degree	B.A.		
Communication, Minor (p. 114)	Minor			
Journalism, Minor (p. 114)	Minor			
Public Relations/Advertising, Minor (p. 114)	Minor			
Visual Media, Minor (p. 114)	Minor			
Global Studies, B.A., Political and Economic Development Concentration (p. 134)	Degree	B.A.		
Global Studies, B.A., Language, Literature, and Culture Concentration (p. 132)	Degree	B.A.		
Global Studies, B.A., The United States and World Affairs Concentration (p. 135)	Degree	B.A.		
Global Studies, Minor (p. 137)	Minor			
Spanish, B.A., Option 1 (p. 137)	Degree	B.A.		
Spanish, B.A., Option 2 (p. 138)	Degree	B.A.		
Spanish for the Health Professions, B.A. (p. 139)	Degree	B.A.		
French, Minor (p. 140)	Minor			
German, Minor (p. 140)	Minor			
Spanish, Minor (p. 141)	Minor			
Japanese, Minor (p. 140)	Minor			
French, Basic Certificate (p. 141)	Certificate			
German, Basic Certificate (p. 141)	Certificate			
Japanese, Basic Certificate (p. 141)	Certificate			
French, Advanced Certificate (p. 142)	Certificate			
German, Advanced Certificate (p. 142)	Certificate			
Spanish, Advanced Certificate (p. 142)	Certificate			
Japanese, Advanced Certificate (p. 142)	Certificate			
Political Science, B.A./B.S. (p. 162)	Degree	B.A./B.S.		
Political Science, Minor (p. 162)	Minor			
Psychology, B.A./B.S. (p. 165)	Degree	B.A./B.S.		
Psychology, Minor (p. 165)	Minor			
Sociology, B.A. (p. 168)	Degree	B.A.		
Sociology, Criminology Concentration, B.A. (p. 168)	Degree	B.A.		
Sociology, Minor (p. 171)	Minor			
Social Work, B.A. (p. 169)	Degree	B.A.		
Criminology, A.A. (p. 170)	Degree	A.A.		
Gender and Sexuality Studies, Minor (p. 171)	Minor			
History, B.A. (p. 145)	Degree	B.A.		
History, Minor (p. 146)	Minor			
Military Science, Minor (p. 150)	Minor			
Music, B.M. (p. 154)	Degree	B.M.		
Music, B.A./B.S. (p. 154)	Degree	B.A./B.S.		
Music Education, B.M.E. (p. 155)	Degree	B.M.E.		
Music, Minor (p. 156)	Minor			
Theatre, B.A. (p. 158)	Degree	B.A.		
Theatre, Minor (p. 159)	Minor			
Dance: Choreography and Performance, B.A. (p. 159)	Degree	B.A.		
Dance, Minor (p. 160)	Minor			
Film Studies, Minor (p. 125)	Minor			

Anthropology

Programs

Program Description	Type	Degree
Anthropology, B.A. (p. 96)	Degree	B.A.
Anthropology, Minor (p. 97)	Minor	
American Indian Studies, Minor (p. 97)	Minor	
Latino Studies, Minor (p. 98)	Minor	
Linguistics, Minor (p. 98)	Minor	
Shoshoni, A.A. (p. 96)	Degree	A.A.
Medical Anthropology, Academic Certificate (p. 98)	Certificate	

Mission

The mission of the Department of Anthropology is to research and teach about global human diversity from the distant past to the present. Anthropology applies theoretical and practical tools to understanding the human past, human biology and evolution, language, contemporary society, and culture, and provides cross-cultural, environmental, and global perspectives on past and present human behavior. Our mission is to apply anthropological concepts to the resolution of important social, cultural, health, and environmental problems of our times. The Department of Anthropology offers courses leading to the Bachelor of Arts degree and the Master of Arts or Master of Science degrees. For a full description of the M.A. and M.S. degrees, refer to the Graduate Catalog (<http://coursecat.isu.edu/graduate>). The Anthropology major provides training in the four sub-disciplines of archaeology, biological anthropology, anthropological linguistics, and sociocultural anthropology. The department also offers an Associate of Arts degree in Shoshoni; minors in Anthropology, American Indian Studies, Latino Studies, and Linguistics; and specialization in archaeological science, ecological anthropology, medical anthropology, applied anthropology, forensics, and language preservation.

Undergraduate Learning Objectives And Outcomes

Program Objectives – Students who have completed an undergraduate major in Anthropology at Idaho State University should be able to:

1. Understand basic methods, concepts, theories and approaches, and modes of explanation appropriate to each of the sub-fields of the discipline.
2. Read and understand anthropological theory at the level of Bachelor of Arts.
3. Understand the use of quantitative and qualitative analyses in anthropological research.
4. Understand a comparative approach to the human condition, both cross-culturally and chronologically.
5. Demonstrate technical writing skills at the level of Bachelor of Arts.

Learning Outcomes – Students in the Senior Seminar will demonstrate the following competencies based on the above objectives:

1. Apply knowledge of anthropological methods, approaches, and modes of explanation to contemporary social issues.
2. Use theory to formulate a testable explanation for a given cultural behavior.
3. Select and perform quantitative and qualitative analytical techniques at a basic level.

4. Carry out a research project using cross-cultural and/or diachronic comparative methods.
5. Write a competent senior research paper.

Anthropology Faculty (p. 95)

ANTH Courses (p. 501)

SHOS Courses (p. 646)

Anthropology Faculty

Chair and Professor

Reedy, Katherine L., Department Chair and Professor, Anthropology. B.A. 1997, University of Wisconsin; Ph.D. 2004, University of Cambridge, U.K. (2007)

Professors

Cartwright, Elizabeth, Professor, Anthropology. B.A. 1983, M.A. 1988, University of Wyoming; B.S. 1989, Ph.D. 1998, University of Arizona. (1999)

Loether, Christopher, Professor, Anthropology. Program Director, American Indian Studies Program. B.A. 1981, M.A. 1988, Ph.D. 1989, University of California, Los Angeles. (1989)

Associate Professor

Dudgeon, John V., Associate Professor, Anthropology. B.A. 1990, University of Colorado; M.A. 1998, University of Washington; Ph.D. 2008, University of Hawaii. (2008)

Assistant Professors

Blatt, Samantha H., Assistant Professor, Anthropology. B.S., 2004, Rutgers, The State University of New Jersey; M.A., 2007, The Ohio State University; Ph.D., 2013, The Ohio State University. (2018)

Getz, Sara M., Assistant Professor, Anthropology. B.S., 2008, Penn State University; M.S., 2011, Mercyhurst University; Ph.D., 2017, Penn State University. (2018)

Speer, Charles A., Assistant Professor, Anthropology. B.A. 2003, M.A. 2006, Ph.D. 2013, University of Texas San Antonio. (2015)

Lecturers

Petersen, Christian, Associate Lecturer, Anthropology. B.S. 1992, M.S. 2002, Ph.D. 2017, Idaho State University. (2005)

Thomas, Lewis K., Assistant Lecturer, Anthropology. B.A. 1989, M.A. 1995, Idaho State University; ABD, University of Illinois at Urbana-Champaign. (1998)

Native Language Lecturer

Gould, Drusilla, Native Language Instructor, Anthropology. (1993)

Emeriti

Holmer, Richard N., Professor, Anthropology. 1983-2011

Stocks, Anthony, Professor, Anthropology. 1979-2006

B.A. Anthropology

Program Admissions Requirements

There are no program admission requirements for the B.A. in Anthropology

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - Foreign language requirement		7
Objective 5 - ANTH 2230, ANTH 2230L		7
Objective 6 - ANTH 1102		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - ANTH 1107		
Objective 8		
Objective 9		3
Total Credits		38

Major Requirements

Code	Title	Credits
Required lower division courses		
ANTH 1102	Cultural Anthropology (Partially Fulfills Objective 6)	3
ANTH/ENGL/LANG 1107	Nature of Language (Satisfies General Education Objective 7)	3
ANTH 2203	Discover Archaeology	3
ANTH 2230	Biological Anthropology (Partially Fulfills Objective 5)	3
ANTH 2230L	Biological Anthropology Lab (Partially Fulfills Objective 5)	1
Two semesters of a foreign language.		8

All students, particularly those planning graduate work, are strongly urged to pursue additional foreign language training beyond this requirement

Required upper division courses.

ANTH 4401	History and Theory of Sociocultural Anthropology	3
ANTH 4403	History and Theory of Archaeology	3
ANTH 4430	Human Evolution	3
ANTH 4492	Senior Seminar	3
ANTH 4495	Department Colloquium	1

Choose one upper division linguistics class from the following:

ANTH 4450	Sociolinguistics	3
ANTH 4455	Phonetics	
ANTH 4456	Phonology and Morphology	
ANTH 4458	Historical Linguistics	
ANTH 4459	Linguistic Field Methods	

9 credits of upper division anthropology courses. (Must be selected in consultation with their major advisor.)

All courses used to satisfy major requirements must be passed with a C grade or better.

Total Credits 46

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	38
	Major Requirements (w/o General Education)	35
	Upper Division Free Electives	11
	Free Electives	36
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

A.A. Shoshoni

Program Admissions Requirements

There are no program admission requirements for the A.A. in Shoshoni

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - SHOS 1101		7

Objective 5 7

Objective 6 6

Students must fulfill Objective 7 or Objective 8 3

Objective 7

Objective 8

Objective 9 - SHOS 2201 4

Total Credits 39

Major Requirements

Code	Title	Credits
SHOS 1101	Elementary Shoshoni I (Partially satisfies General Education Objective 4)	4
SHOS 1102	Elementary Shoshoni II (Partially satisfies General Education Objective 4)	4
SHOS 2201	Intermediate Shoshoni I (Satisfies General Education Objective 9)	4
SHOS 2202	Intermediate Shoshoni II (Satisfies General Education Objective 9)	4
Select four courses from the following:		12
ANTH/ENGL/LANG 1107	Nature of Language	
ANTH 2206	Indigenous Traditional Parenting	
ANTH/HIST 2258	Native American History	
ANTH 3301	Introduction to Shoshoni Folklore	
ANTH 4452	American Indian Verbal Arts	
ANTH/ENGL 4453	American Indian Literature	
ANTH 4454	Survey of American Indian Languages	
ANTH 4472	Native American Arts	

ANTH/POLS 4478	Federal Indian Laws	
ANTH/POLS 4479	Tribal Governments	
ANTH 4489	Topics in American Indian Studies	
Total Credits		28

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		39
Major Requirements (w/o General Education)		20
Upper Division Free Electives		0
Free Electives		1
Total Credits		60

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Minor in American Indian Studies

Code	Title	Credits
ANTH 2238	Peoples and Cultures of the New World	3
ANTH 2258	Native American History	3
ANTH 4453	American Indian Literature	3
Select four of the following courses:		12
SHOS 1101	Elementary Shoshoni I	
SHOS 1102	Elementary Shoshoni II	
(Either of the 2 courses above partially satisfies General Education Objective 4.)		
ANTH 2206	Indigenous Traditional Parenting	
ANTH 3301	Introduction to Shoshoni Folklore	

ANTH 4406	American Indian Health Issues	
ANTH 4452	American Indian Verbal Arts	
ANTH 4454	Survey of American Indian Languages	
ANTH 4472	Native American Arts	
ANTH 4474	Topics in Indian Education	
ANTH/POLS 4478	Federal Indian Laws	
ANTH/POLS 4479	Tribal Governments	
ANTH 4489	Topics in American Indian Studies	
Total Credits		21

Minor in Anthropology

Code	Title	Credits
ANTH 1102	Cultural Anthropology (Partially satisfies General Education Objective 6)	3
ANTH/ENGL/LANG 1107	Nature of Language (Satisfies General Education Objective 7)	3
ANTH 2203	Discover Archaeology	3
ANTH 2230	Biological Anthropology (Partially satisfies General Education Objective 5)	3
ANTH 2230L	Biological Anthropology Lab (Partially satisfies General Education Objective 5)	1
Two (2) semesters of a foreign language.		8
Additional upper division Anthropology courses.		10
Total Credits		31

Minor in Latino Studies

Code	Title	Credits
ANTH 1102	Cultural Anthropology (Partially satisfies General Education Objective 6)	3
ANTH 2239	Latino Peoples and Cultures (Satisfies General Education Objective 9)	3
HIST 2251	Latin American History and Culture	3
One year of Intermediate Spanish		6-8
SPAN 2201 & SPAN 2202	Intermediate Spanish I and Intermediate Spanish II	
(Either course above satisfies General Education Objective 9.)		
OR		
SPAN 3301 & SPAN 3302	Spanish Conversation and Composition I and Spanish Conversation and Composition II	
OR		

Others with permission of Latino Studies Director		
Plus 6 credits from the following list, 3 credits must be upper division.		6
ANTH 2239	Latino Peoples and Cultures (Satisfies General Education Objective 9) ¹	
SPAN 3342	Survey of Latin American Literature and Civilization	
SPAN 3375	Topics in Culture and Literature	
SPAN 3381	Hispanic Current Affairs	
SPAN 4475	Topics in Culture and Literature	
Total Credits		21-23

¹ Repeatable for 6 credits choosing different courses such as Contemporary Latinos in the U.S., Peoples of Mexico Through Film, Ancient Mesoamerica, or other approved classes.

Minor in Linguistics

Code	Title	Credits
ANTH/ENGL/LANG 1107	Nature of Language (Satisfies General Education Objective 7)	3
ENGL 2281	Introduction to Language Studies	3
ANTH/LANG 4455	Phonetics	3
or ENGL 4484	Rotating Topics in Linguistics	
or PHIL 4410	Philosophy of Language	
or ANTH 4450/ ENGL 4488	Sociolinguistics	
One year of a foreign language		8
Plus nine credits from the following:		9
ENGL 2280	Grammar and Usage	
ANTH/ENGL 3367	Language in the United States	
ANTH 4452	American Indian Verbal Arts	
ANTH 4455	Phonetics	

ANTH 4456	Phonology and Morphology	
ANTH/LANG 4457	Survey of Indo European Languages	
ANTH 4458	Historical Linguistics	
ANTH 4459	Linguistic Field Methods	
ANTH/ENGL 4480	Varieties of American English	
ENGL 4481	Studies In Grammar	
ANTH/ENGL/LANG 4484	Rotating Topics in Linguistics	
ENGL 4486	Old English	
ENGL 4487	History of the English Language	
PHIL 2201	Introduction to Logic (Satisfies General Education Objective 7)	
PHIL 4410	Philosophy of Language	
Total Credits		26

Academic Certificate in Medical Anthropology

Code	Title	Credits
Select 9 credits from the following courses:		9
ANTH 4407	Anthropology of Global Health	
ANTH 4408	Topics in Medical Anthropology	
ANTH 4409	Clinical Medical Anthropology	
ANTH 4411	Advanced Global Health	
Total Credits		9

Art

Programs

Program Description	Type	Degree
Art, B.A. (p. 101)	Degree	B.A.
Art, B.F.A. (p. 101)	Degree	B.F.A.
Art History, Minor (p. 102)	Minor	
Studio, Minor (p. 102)	Minor	

The primary focus of the art program is to develop technical proficiency and knowledge of contemporary contexts and professional practice in the visual arts. The student who declares an art major can earn the Bachelor of Arts degree or the Bachelor of Fine Arts degree. The B.F.A. is strongly recommended for those students who plan to pursue graduate work in the visual arts or who intend to work as studio artists. The studio areas offered are: drawing, painting, printmaking, sculpture, fiber media, and ceramics. Additionally, papermaking, watercolor, and special topics courses are available. The art major may concentrate in one studio area or work in several areas. For students majoring in other fields, our program offers a minor in Art History and Studio.

Students who are working on the B.A or B.F.A. must complete 8 of the 9 General Education Objectives (a minimum of 36 credits—see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).

Students interested in majoring or minoring in the Art department should contact the department to be admitted.

Prerequisites

Students who major in art must complete the foundation courses (ART 1100, ART 1103, ART 1104, ART 1105, ART 1106) in sequence before enrolling in any 2000 level or above studio courses. ART 1103 must be taken before enrolling in ART 1104. ART 1105 must be taken before enrolling in ART 1106. Students should take these five courses during the freshman year. Students must achieve a grade point average of 3.0 or higher in these foundation classes. For Art majors, ART 1100 will be required prior to enrollment in ART 1101 and ART 1102. Non-majors may take studio courses/art history without the foundation prerequisites. Note: ART 3310, Professional Practice and Display, requires at least 60 completed credits and is required for declared Art majors.

Senior Presentation

During the last semester of the students' senior year, they must enroll in Senior Presentation, ART 4494. As a requirement for graduation, the student must present an exhibition of artwork, participate in an oral review with two faculty members chosen by the student, and write a statement that addresses their development and growth as an artist/scholar. Elementary and secondary art education majors should refer to the College of Education (p. 211) section of this catalog for additional information. **Please note that ART 3334, Secondary Art Methods, will be offered only at the department's discretion (D)**. Summer school graduates must exhibit during the spring semester preceding graduation. **At least 36 of the credits earned toward graduation must be in upper division courses (3000 or 4000 numbers) and sixteen of these must be in Art.**

Special Graduation Requirements

Students who wish to major in Art must meet the following criteria:

1. Overall grade point average of 2.5.
2. Achieve a grade point average of 3.0 or higher in the foundation courses (ART 1100, ART 1103, ART 1104, ART 1105, and ART 1106). Students who do not have a 3.0 grade point average in these foundation courses may, with the approval of their advisor, appeal to continue in their degree program and graduate as an Art major by submitting a portfolio for faculty review.

The Department of Art will accept no D or F grades for major or minor course work. **Courses with D or F grades, including Art electives, must be repeated and a higher grade earned before a student can qualify for graduation with a degree in Art.** Individual Project courses (ART 3385) must be taken in the same medium when being repeated to earn a higher grade.

Faculty (p. 100)

ART Courses (p. 505)

Art Faculty

Chair

Velasquez, Naomi S., Associate Professor, Art. B.A. 1999, Washington State University; M.F.A. 2012, University of North Texas. (2012)

Professor

Warnock, Douglas, B.A. 1975, University of California, Santa Barbara; M.A. 1979, San Jose State University; M.F.A. 1986, Hunter College, City University of New York. (1995)

Associate Professor

Ahola-Young, Laura, B.F.A. 1998, Minneapolis College of Art + Design; M.F.A. 2001, San Jose State University. (2013)

Assistant Professors

Fardy, Jonathan, B.A. 2002, Framingham State University; M.A. 2008 Bowling Green State University; Ph.D. 2014, The University of Western Ontario. (2017)

Kang, Leekyung, B.F.A. 2011, Seoul National University; M.F.A. 2017, Rhode Island School of Design. (2018)

Pickett, Christopher, B.F.A. 2001, University of Tennessee; M.F.A. 2011, University of Florida. (2017)

Senior Lecturer

Popa, Amy J., B.F.A. 1994, New Mexico Highlands University; M.F.A. 1998, Idaho State University. (2003)

Associate Lecturer

Babcock, Ryan, B.F.A. 1998, University of Idaho; M.F.A. 2003, Idaho State University. (2013)

Emeriti

Brown, Donald D. Professor, Art. 1956-1994

Dial, Theresa Gail. Professor, Art. 1974-2008

Evans, Scott E.,* Professor, Art. 1986-2015

Kovacs, Rudolph S.,* Professor, Art. 1980-2012

Martin, Anthony, Professor, Art. 1977-2015

B.A. Art

Program Admissions Requirements

There are no program admission requirements for the B.A. in Art.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - ART 1100		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
ART 1100	Introduction to Art (Partially Fulfills Objective 4)	3
ART 1101	Survey of Art History I	3
ART 1102	Survey of Art History II	3
ART 1103	Creative Process	3
ART 1104	Creative Process	3
ART 1105	Drawing I	3
ART 1106	Drawing II	3
ART 4494	Senior Presentation	1

B.F.A. Art

Program Admissions Requirements

There are no program admission requirements for the B.F.A. in Art

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - ART 1100		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		

Choose 27 credits of Art electives, at least 15 credits must be upper division.

27

Students who wish to complete a B.A. in Art must meet the following criteria:

Overall grade point average of 2.5.

Achieve a grade point average of 3.0 or higher in the foundation courses (ART 1100, ART 1103, ART 1104, ART 1105, and ART 1106). Students who do not have a 3.0 grade point average in these foundation courses may, with the approval of their advisor, appeal to continue in their degree program and graduate as an Art major by submitting a portfolio for faculty review.

All major coursework must be completed with a C- or better grade. Courses with D or F grades, including Art electives, must be repeated and a higher grade earned before a student can qualify for graduation with a degree in Art. Individual Project courses (ART 3385) must be taken in the same medium when being repeated to earn a higher grade.

Total Credits 49

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (w/o General Education)	46
	Upper Division Free Electives	20
	Free Electives	17
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
ART 1100	Introduction to Art (Partially Fulfills Objective 4)	3
ART 1101	Survey of Art History I	3
ART 1102	Survey of Art History II	3
ART 1103	Creative Process	3
ART 1104	Creative Process	3
ART 1105	Drawing I	3
ART 1106	Drawing II	3
ART 2231	Introduction to Printmaking	3

ART 2241	Introduction to Painting and Composition	3
ART 2251	Introduction to Metals and Jewelry	3
ART 2261	Introduction to Fiber Media	3
ART 2271	Introduction to Ceramics	3
ART 2281	Introduction to Sculpture	3
ART 3301	Anatomy Drawing and Painting	3
ART 3305	Intermediate Drawing I	3
ART 3310	Professional Practice and Display	3
ART 4425	Contemporary Art	3
ART 4494	Senior Presentation	1

Plus one of the following: 3

ART 2210	History and Appreciation of Photography	
ART 3323	19th c European Art	
ART 3324	American Art	
ART 4424	Modern Art	
ART 4426	Special Topics in Art History	
ART 4427	Theories and Methodologies	

Upper Division Studio Art electives 18

Students who wish to complete a B.F.A. in Art must meet the following criteria:

Overall grade point average of 2.5.

Achieve a grade point average of 3.0 or higher in the foundation courses (ART 1100, ART 1103, ART 1104, ART 1105, and ART 1106). Students who do not have a 3.0 grade point average in these foundation courses may, with the approval of their advisor, appeal to continue in their degree program and graduate as an Art major by submitting a portfolio for faculty review.

All major coursework must be completed with a C- or better grade. Courses with D or F grades, including Art electives, must be repeated and a higher grade earned before a student can qualify for graduation with a degree in Art. Individual Project courses (ART 3385) must be taken in the same medium when being repeated to earn a higher grade.

Total Credits 73

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (w/o General Education)	70
	Upper Division Free Electives	3
	Free Electives	10
	Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degrequirments>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Minor in Art History

Code	Title	Credits
ART 1100	Introduction to Art	3
ART 1101	Survey of Art History I	3
ART 1102	Survey of Art History II	3
ART 4424	Modern Art	3
ART 4425	Contemporary Art	3
Plus 2 of the following electives:		6

ART 2210	History and Appreciation of Photography	
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ART 3323	19th c European Art
ART 3324	American Art
ART 4426	Special Topics in Art History
ART 4427	Theories and Methodologies

All minor coursework must be completed with a C- or better grade. Courses with D or F grades, including Art electives, must be repeated and a higher grade earned before a student can qualify for graduation with a minor in Art History

Total Credits 21

Minor in Studio

Code	Title	Credits
ART 1100	Introduction to Art	3
One of the following:		3
ART 1101	Survey of Art History I	
ART 1102	Survey of Art History II	
ART 1103	Creative Process	3
ART 1105	Drawing I	3

Select one course in each of the following groups, and one additional elective 9

Two dimensional (2D):

ART 2231	Introduction to Printmaking	
----------	-----------------------------	--

ART 2241	Introduction to Painting and Composition
ART 2261	Introduction to Fiber Media
Three dimensional (3D):	
ART 2251	Introduction to Metals and Jewelry
ART 2271	Introduction to Ceramics
ART 2281	Introduction to Sculpture

All minor coursework must be completed with a C- or better grade. Courses with D or F grades, including Art electives, must be repeated and a higher grade earned before a student can qualify for graduation with a minor in Studio.

Total Credits

21

Communication, Media, and Persuasion

Programs

Program Description	Type	Degree
Communication, B.A., Corporate Communication Emphasis, Advertising Track (p. 106)	Degree	B.A.
Communication, B.A., Corporate Communication Emphasis, Leadership Track (p. 107)	Degree	B.A.
Communication, B.A., Corporate Communication Emphasis, Public Relations Track (p. 108)	Degree	B.A.
Communication, B.A., Multiplatform Journalism Emphasis (p. 109)	Degree	B.A.
Communication, B.A., Rhetoric and Media Affairs Emphasis (p. 109)	Degree	B.A.
Communication, B.A., Visual Communication Emphasis, Design Track (p. 111)	Degree	B.A.
Communication, B.A., Visual Communication Emphasis, Photo Media Track (p. 112)	Degree	B.A.
Communication, B.A., Visual Communication Emphasis, Video Track (p. 113)	Degree	B.A.
Communication, Minor (p. 114)	Minor	
Journalism, Minor (p. 114)	Minor	
Public Relations/Advertising, Minor (p. 114)	Minor	
Visual Media, Minor (p. 114)	Minor	

James E. Rogers Department of Communication, Media, and Persuasion

The James E. Rogers Department of Communication, Media, and Persuasion administers a Bachelor of Arts in Communication with emphases in Corporate Communication, Rhetoric, Visual Communication, and Multi-Platform Journalism; and minors in Public Relations/Advertising, Rhetoric, Visual Communication, and Leadership.

The primary objectives related to the Bachelor of Arts program in Communication are to assist all students in developing the following:

1. The ability to engage in critical thinking.
2. The ability to communicate effectively in writing.
3. The ability to communicate effectively through oral presentation.
4. The ability to engage in effective applied problem-solving for personal and professional goals.
5. The ability to construct and evaluate strategic verbal and visual messages.
6. The ability to use effective information research strategies.
7. An understanding of the role of communication in interpersonal, group/team, corporate, political, cultural, mediated, and historical contexts.
8. Knowledge and skill useful to graduates' professional success.
9. Knowledge and skill applicable to graduates' personal lives.

Effective communication is vital to successful social interaction and depends upon an adequate breadth of knowledge. The Communication, Media, and Persuasion curriculum program offerings emphasize the importance of a strong liberal arts education as well as relevant technical skill development in preparing

students for communication careers and for participation as members of a diverse global society.

Communication, Media, and Persuasion Faculty (p. 105)

Communications, Media, and Persuasion Courses (p. 526)

Communication and Rhetorical Studies Courses (p. 526)

Communications, Media, and Persuasion Faculty

Chair and Professor

DiSanza, James R. * Department Chair and Professor, Communication, Media, and Persuasion. B.A. 1982, California State University at Stanislaus; M.A. 1985, San Francisco State University; Ph.D. 1989, Pennsylvania State University. (1989)

Professors

Gribas, John S. * Professor, Communication, Media, and Persuasion. B.S. 1984, Montana State University - Billings; M.A. 1990, Ph.D. 1993, University of Kansas. (1996)

Legge, Nancy [DiSanza] * Professor, Communication, Media, and Persuasion. B.A. 1982, Wayne State University; M.A. 1984, Indiana University; Ph.D. 1988, Pennsylvania State University. (1991)

Partlow Lefevre, Sarah T. * Director, Forensics; Professor, Communication, Media, and Persuasion. B.A. 1995, University of Utah; M.A. 1998, Ph.D. 2001, University of Kansas. (2001)

Associate Professors

Carr, D. Jasun * Associate Professor, Communication, Media, and Persuasion. B.A. 2003, University of Wisconsin - Green Bay; M.A. 2005, Kutztown University; Ph.D. 2014, University of Wisconsin - Madison. (2014)

Gershberg, Zac * Associate Professor of Journalism and Media Studies, Department of Communication, Media, and Persuasion. B.S. 2002, Ithaca College; M.A. 2004, Hawaii Pacific University; Ph.D. 2008, Louisiana State University. (2014)

Hartman, Karen L. * Associate Professor, Communication, Media, and Persuasion. B.A. 2000, Furman University; M.A. 2004, University of South Carolina; Ph.D. 2008, Louisiana State University. (2014)

Ownby, Terry, Associate Professor, Communication, Media, and Persuasion. B.S. 1983, Missouri State University; M.A. 1987, Webster University-Saint Louis; Ph.D. 2011, Colorado State University. (2013)

Assistant Professors

Brunner, Elizabeth A., Assistant Professor, Communication, Media, and Persuasion. B.A. 1999, M.F.A. 2002, Ohio University; M.A. 2011, University of Colorado Denver; Ph.D. 2016, University of Utah. (2016)

Lonergan, Kelly, Assistant Professor, Graphic Design. B.F.A. 2010, James Madison University; M.F.A. 2018, Savannah College of Art and Design. (2018)

Sharma, Neelam, Assistant Professor, Communication, Media, and Persuasion. B.C. Commerce, Panjab University; M.A., Panjab University; Ph.D., Colorado State University. (2018)

Shelton, Summer, Assistant Professor, Communication, Media, and Persuasion. B.A. 2014, Marietta College; M.A. 2016, Florida State University; Ph.D. 2019, University of Florida. (2019)

Visiting Assistant Professor

Appelman, Jason, Visiting Assistant Professor, Communication, Media, and Persuasion. M.F.A., Boise State University. (2018)

Senior Lecturer

Collins, Jill, Senior Lecturer, Communication, Media, and Persuasion. B.A. 1993, Salisbury University, M.A. 1999, Idaho State University. (1999)

Associate Lecturer

Underwood, Angeline, Assistant Lecturer, Communication, Media, and Persuasion. B.A. 2003, M.A. 2005, Idaho State University. (2005)

Assistant Lecturers

Christensen, Andrew, Assistant Lecturer, Communication, Media, and Persuasion. B.A. 1992, University of Idaho, M.A. 2016, Idaho State University. (2016)

Shelden, Daniel, Assistant Lecturer, Communication, Media, & Persuasion. B.A. 2015; M.A. 2018. (2018)

Young, John, Assistant Lecturer, Video Production. B.A. 1986. (2017)

Emeriti

Beachboard, Martine Robinson * Associate Professor, Communication, Media, and Persuasion. 2001-2019

Frazier, Timothy H. * Professor, Mass Communication. 1986-2013

Jull, Paula W. * Professor, Communication, Media, and Persuasion. 1987-2017

Loebs, Bruce, D. * Professor, Communication, Media, and Persuasion. 1969-2015

B.A. Communication, Corporate Communication Emphasis, Advertising Track

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Corporate Communication emphasis, Advertising track.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Corporate Communication Core		
CMP 2201	Business and Professional Communication	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2209	Persuasion	3
CMP 2231	Introduction to Graphic Design	3
CMP 3308	Groups and Communication	3
CMP 3309	Communication Inquiry	3
Advertising Track Required Courses		
CMP 1110	Media Writing	3
CMP 2261	Introduction to Advertising	3
CMP 3365	Advertising Strategy and Copywriting	3
CMP 3367	Advertising Media Planning	3
CMP 4465	Advertising Campaigns	3
Choose one of the following:		
CMP 3336	Studio I: Typography and Digital Media	
CMP 4437	Illustration and Brand Identity	
Choose one of the following:		3
CMP 3307	Social and Interactive Media Campaigns	
CMP 3339	Web Design	
CMP 4475	Corporate Video Production	
Choose 6 credits from the following list of program electives:		6
CMP 2203	Media Literacy (Fulfills Objective 8)	

CMP 2205	Argumentation
CMP 2241	Introduction to Public Relations
CMP 2251	Introduction to Photography
CMP 2286	Visual Rhetoric
CMP 3302	Image Management
CMP 3320	Foundations of Leadership
CMP 3346	Public Relations Writing
CMP 3347	Sport Communication
CMP 4404	Gender and Communication
CMP 4410	Mass Media History, Law, and Ethics
CMP 4446	Public Relations Campaigns
CMP 4460	National Student Advertising Competition
CMP 4475	Corporate Video Production
CMP 4483	Rhetoric of Popular Culture
CMP 4487	Rhetorical Theory
CMP 4488	Rhetorical Criticism
CMP 4494	Internship
MKTG 2225	Basic Marketing Management
Total Credits	42

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	53
	Upper Division Free Electives	28
	Free Electives	2
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Corporate Communication Emphasis, Leadership Track

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Corporate Communication emphasis, Leadership track.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Corporate Communication Core		
CMP 2201	Business and Professional Communication	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2209	Persuasion	3
CMP 2231	Introduction to Graphic Design	3
CMP 3308	Groups and Communication	3
CMP 3309	Communication Inquiry	3
Required Leadership Track Courses		
CMP 3302	Image Management	3
CMP 3320	Foundations of Leadership	3
CMP 4420	Advanced Leader Communication	3
CMP 4422	Conflict Management	3
Choose 15 credits from the following list of program electives:		15
CMP 2205	Argumentation	
CMP 2241	Introduction to Public Relations	
CMP 2261	Introduction to Advertising	
CMP 2286	Visual Rhetoric	
CMP 3307	Social and Interactive Media Campaigns	
CMP 3346	Public Relations Writing	
CMP 3347	Sport Communication	
CMP 3367	Advertising Media Planning	
CMP 4404	Gender and Communication	

CMP 4440	Sport Public Relations	
CMP 4446	Public Relations Campaigns	
CMP 4475	Corporate Video Production	
CMP 4487	Rhetorical Theory	
CMP 4488	Rhetorical Criticism	
CMP 4494	Internship	
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	18
	Free Electives	20
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Corporate Communication Emphasis, Public Relations Track

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Corporate Communication emphasis, Public Relations track.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Corporate Communication Core		
CMP 2201	Business and Professional Communication	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2209	Persuasion	3
CMP 2231	Introduction to Graphic Design	3
CMP 3308	Groups and Communication	3
CMP 3309	Communication Inquiry	3
Required Public Relations Track Courses		
CMP 1110	Media Writing	3
CMP 2241	Introduction to Public Relations	3
CMP 3307	Social and Interactive Media Campaigns	3
CMP 3346	Public Relations Writing	3
CMP 4446	Public Relations Campaigns	3
Choose one of the following:		3
CMP 4437	Illustration and Brand Identity	
CMP 4440	Sport Public Relations	
Choose 9 credits from the following list of program electives:		9
CMP 2203	Media Literacy (Satisfies General Education Objective 8)	
CMP 2205	Argumentation	

CMP 2261	Introduction to Advertising	
CMP 2271	Television and Video Production	
CMP 2286	Visual Rhetoric	
CMP 3302	Image Management	
CMP 3310	Multiplatform Storytelling	
CMP 3320	Foundations of Leadership	
CMP 3339	Web Design	
CMP 3347	Sport Communication	
CMP 3367	Advertising Media Planning	
CMP 4404	Gender and Communication	
CMP 4410	Mass Media History, Law, and Ethics	
CMP 4418	Feature Writing	
CMP 4420	Advanced Leader Communication	
CMP 4422	Conflict Management	
CMP 4460	National Student Advertising Competition	
CMP 4475	Corporate Video Production	
CMP 4487	Rhetorical Theory	
CMP 4488	Rhetorical Criticism	
CMP 4494	Internship	
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	18
	Free Electives	20
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degreerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Multiplatform Journalism Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Multiplatform Journalism emphasis.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Multiplatform Journalism Core		
CMP 1110	Media Writing	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2209	Persuasion	3
CMP 2271	Television and Video Production	3

CMP 3309	Communication Inquiry	3
CMP 3311	Business and Political Reporting	3
CMP 3339	Web Design	3
CMP 4403	Mass Communication and Society	3
CMP 4410	Mass Media History, Law, and Ethics	3

Choose 9 credits from the following list of Journalism electives: 9

CMP 3310	Multiplatform Storytelling	
CMP 3312	Screenwriting	
CMP 3375	Television Programming	
CMP 4418	Feature Writing	

Complete 9 credits from other course offerings in the CMP curriculum, at least 3 of which are at the 3000-level or above. 9

Total Credits 45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	9
	Free Electives	29
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degreerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Rhetoric and Media Affairs Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Rhetoric and Media Affairs emphasis.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7

Objective 6 6

Students must fulfill Objective 7 or Objective 8 3

Objective 7 - CMP 2205

Objective 8 - CMP 2203

Objective 9 3

Total Credits 37

Major Requirements

Code	Title	Credits
Rhetoric Core		
CMP 2205	Argumentation (Fulfills Objective 7)	3
CMP 2209	Persuasion	3
CMP 2286	Visual Rhetoric	3
CMP 3383	Activism and Social Change	3

CMP 4483	Rhetoric of Popular Culture	3
CMP 4487	Rhetorical Theory	3
CMP 4488	Rhetorical Criticism	3

Media Affairs Core

CMP 2203	Media Literacy (Fulfills Objective 8)	3
CMP 2241	Introduction to Public Relations	3
CMP 3382	Political Communication	3
CMP 4404	Gender and Communication	3
CMP 4410	Mass Media History, Law, and Ethics	3

Career Track Electives 9

Complete 9 credits from other course offerings in the CMP curriculum, at least six (6) of which are at the 3000-level or above.

Students should meet with their major advisor to help plan their Career Track Elective courses.

Total Credits	45
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Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (Required General Education credits removed.)	42
	Upper Division Free Electives	9
	Free Electives	32
	Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Visual Communication Emphasis, Design Track

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Visual Communication emphasis, Design track.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Visual Communications Core		
CMP 1110	Media Writing	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2286	Visual Rhetoric	3
CMP 3339	Web Design	3
CMP 4403	Mass Communication and Society	3
CMP 4410	Mass Media History, Law, and Ethics	3
Design Track		
CMP 2231	Introduction to Graphic Design	3
CMP 3336	Studio I: Typography and Digital Media	3
CMP 3338	Studio II: Typography and Print Media	3
CMP 4437	Illustration and Brand Identity	3
CMP 4438	Graphic Design Portfolio	3
Two of the following from another Visual Communications track.		6
Photo Media Track		
CMP 2250/ART 2210	History and Appreciation of Photography (Partially satisfies Objective 4)	
CMP 2251	Introduction to Photography	
CMP 3352	Photo Communication	
CMP 3355	Studio Photography	
CMP 4457	Advanced Photography	
Video Track		
CMP 2271	Television and Video Production	

CMP 3310	Multiplatform Storytelling	
CMP 3371	Narrative Video Production	
CMP 4471	Advanced Video Production	
CMP 4475	Corporate Video Production	
Complete two of the following:		6
CMP 2201	Business and Professional Communication	
CMP 2203	Media Literacy (Satisfies Objective 8)	
CMP 2209	Persuasion	
CMP 2241	Introduction to Public Relations	
CMP 2261	Introduction to Advertising	
CMP 3307	Social and Interactive Media Campaigns	
CMP 3332	3-D Modeling and Design	
CMP 3333	Virtual Reality Environments	
CMP 4404	Gender and Communication	
CMP 4422	Conflict Management	
CMP 4483	Rhetoric of Popular Culture	
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	15
	Free Electives	23
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Visual Communication Emphasis, Photo Media Track

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Visual Communication emphasis, Photo Media track.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Visual Communications Core		
CMP 1110	Media Writing	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2286	Visual Rhetoric	3
CMP 3339	Web Design	3
CMP 4403	Mass Communication and Society	3
CMP 4410	Mass Media History, Law, and Ethics	3
Photo Media Track		
CMP 2250/ART 2210	History and Appreciation of Photography (Partially Fulfills Objective 4)	3
CMP 2251	Introduction to Photography	3
CMP 3352	Photo Communication	3
CMP 3355	Studio Photography	3
CMP 4457	Advanced Photography	3
Two courses from another Visual Communications track.		6
Design Track		
CMP 2231	Introduction to Graphic Design	
CMP 3336	Studio I: Typography and Digital Media	
CMP 3338	Studio II: Typography and Print Media	
CMP 4437	Illustration and Brand Identity	
CMP 4438	Graphic Design Portfolio	
Video Track		
CMP 2271	Television and Video Production	

CMP 3310	Multiplatform Storytelling	
CMP 3371	Narrative Video Production	
CMP 4471	Advanced Video Production	
CMP 4475	Corporate Video Production	
Complete two of the following:		6
CMP 2201	Business and Professional Communication	
CMP 2203	Media Literacy (Fulfills Objective 8)	
CMP 2209	Persuasion	
CMP 2241	Introduction to Public Relations	
CMP 2261	Introduction to Advertising	
CMP 3307	Social and Interactive Media Campaigns	
CMP 3332	3-D Modeling and Design	
CMP 3333	Virtual Reality Environments	
CMP 4404	Gender and Communication	
CMP 4422	Conflict Management	
CMP 4483	Rhetoric of Popular Culture	
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	18
	Free Electives	20
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Communication, Visual Communications Emphasis, Video Track

Program Admissions Requirements

There are no program admission requirements for the B.A. in Communication, Visual Communication emphasis, Video track.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
Visual Communications Core		
CMP 1110	Media Writing	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2286	Visual Rhetoric	3
CMP 3339	Web Design	3
CMP 4403	Mass Communication and Society	3
CMP 4410	Mass Media History, Law, and Ethics	3
Video Track		
CMP 2271	Television and Video Production	3
CMP 3310	Multiplatform Storytelling	3
CMP 3371	Narrative Video Production	3
CMP 4471	Advanced Video Production	3
CMP 4475	Corporate Video Production	3
Two of the following from another Visual Communications track.		6
Design Track		
CMP 2231	Introduction to Graphic Design	
CMP 3336	Studio I: Typography and Digital Media	
CMP 3338	Studio II: Typography and Print Media	
CMP 4437	Illustration and Brand Identity	
CMP 4438	Graphic Design Portfolio	
Photo Media Track		
CMP 2250/ART 2210	History and Appreciation of Photography (Partially Fulfills Objective 4)	

CMP 2251	Introduction to Photography	
CMP 3352	Photo Communication	
CMP 3355	Studio Photography	
CMP 4457	Advanced Photography	
Complete two of the following:		6
CMP 2201	Business and Professional Communication	
CMP 2203	Media Literacy (Fulfills Objective 8)	
CMP 2209	Persuasion	
CMP 2241	Introduction to Public Relations	
CMP 2261	Introduction to Advertising	
CMP 3307	Social and Interactive Media Campaigns	
CMP 3332	3-D Modeling and Design	
CMP 3333	Virtual Reality Environments	
CMP 4404	Gender and Communication	
CMP 4422	Conflict Management	
CMP 4483	Rhetoric of Popular Culture	
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	15
	Free Electives	23
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Minor in Communication

Code	Title	Credits		
CMP 2201	Business and Professional Communication	3	CMP 3320	Foundations of Leadership
Choose one of the following:			CMP 3347	Sport Communication
CMP 2205	Argumentation	3	CMP 3373	Documentary Cinema
CMP 2209	Persuasion		CMP 3382	Political Communication
Choose 12 credits of electives from the following:			CMP 3383	Activism and Social Change
CMP 2203	Media Literacy	12	CMP 4403	Mass Communication and Society
CMP 2286	Visual Rhetoric		CMP 4404	Gender and Communication
CMP 3302	Image Management		CMP 4420	Advanced Leader Communication
CMP 3305	Intercollegiate Debate		CMP 4422	Conflict Management
CMP 3307	Social and Interactive Media Campaigns		CMP 4483	Rhetoric of Popular Culture
CMP 3308	Groups and Communication		CMP 4487	Rhetorical Theory
CMP 3309	Communication Inquiry		CMP 4488	Rhetorical Criticism
			Total Credits	18

Minor in Journalism

Code	Title	Credits		
CMP 1110	Media Writing	3	CMP 3311	Business and Political Reporting
CMP 2203	Media Literacy	3	CMP 3339	Web Design
Choose 12 credits of electives from the following (at least 9 credits must be 3000-level or above)			CMP 3375	Television Programming
CMP 2202	Photo, Graphic, and Video Editing	12	CMP 4410	Mass Media History, Law, and Ethics
CMP 2271	Television and Video Production		CMP 4418	Feature Writing
CMP 3310	Multiplatform Storytelling		Total Credits	18

Minor in Public Relations and Advertising

Code	Title	Credits		
CMP 1110	Media Writing	3	CMP 3346	Public Relations Writing
CMP 2241	Introduction to Public Relations	3	CMP 3365	Advertising Strategy and Copywriting
CMP 2261	Introduction to Advertising	3	CMP 3367	Advertising Media Planning
Choose 9 credits of electives (at least 6 credits must be 3000-level or above)			CMP 4440	Sport Public Relations
CMP 2203	Media Literacy	9	CMP 4446	Public Relations Campaigns
CMP 2231	Introduction to Graphic Design		CMP 4460	National Student Advertising Competition
CMP 3307	Social and Interactive Media Campaigns		CMP 4465	Advertising Campaigns
			Total Credits	18

Minor in Visual Media

Code	Title	Credits		
CMP 2202	Photo, Graphic, and Video Editing	3	CMP 2251	Introduction to Photography
CMP 2286	Visual Rhetoric	3	CMP 2271	Television and Video Production
Choose 12 credits of electives (at least 6 credits must be 3000-level or above)			CMP 3310	Multiplatform Storytelling
CMP 2203	Media Literacy	12	CMP 3332	3-D Modeling and Design
CMP 2231	Introduction to Graphic Design		CMP 3333	Virtual Reality Environments
CMP 2250	History and Appreciation of Photography		CMP 3336	Studio I: Typography and Digital Media
			CMP 3338	Studio II: Typography and Print Media
			CMP 3339	Web Design

CMP 3352	Photo Communication
CMP 3355	Studio Photography
CMP 3371	Narrative Video Production
CMP 4437	Illustration and Brand Identity
CMP 4438	Graphic Design Portfolio
CMP 4457	Advanced Photography
CMP 4471	Advanced Video Production
CMP 4475	Corporate Video Production
<hr/>	
Total Credits	18

English and Philosophy

Programs

Program Description	Type	Degree
English, BA, Literary Option (p. 121)	Degree	B.A.
English, BA, Professional Writing Option (p. 122)	Degree	B.A.
English, BA, Creative Writing Option (p. 120)	Degree	B.A.
Philosophy, BA, Traditional option (p. 123)	Degree	B.A.
Philosophy BA, Pre-law option (p. 123)	Degree	B.A.
English, Minor - Literature (p. 124)	Minor	
English, Minor - Professional Writing (p. 124)	Minor	
English, Minor - Creative Writing (p. 124)	Minor	
Film Studies, Minor (p. 125)	Minor	
Folklore, Minor (p. 125)	Minor	
Philosophy, Minor (p. 125)	Minor	
Philosophy and Religion, Minor (p. 125)	Minor	
Ethics, Minor (p. 125)	Minor	
Biomedical Ethics, Academic Certificate (p. 125)	Certificate	

Department Overview

The Department of English and Philosophy offers broad curricula in two disciplines. English studies develop writing skills, explore human experience as represented in literature, and treat the nature of language. Philosophy courses examine such topics as the nature of reality, the ways that knowledge is acquired, and the basis for ethical choices.

The department offers the B.A. and M.A. in English, the Ph.D. in English and Teaching of English, and the B.A. in philosophy. English and Philosophy courses also can contribute to the general education and personal enrichment of students in all disciplines.

Equipped with an undergraduate degree in either English or philosophy, students are prepared to enter graduate degree programs, to pursue training in such professions as journalism, law, religion, or medicine, or to embark upon a great variety of careers in government, business, and industry that demand broad, liberal arts perspectives and strong observational, fact-finding, analytical, and communication skills. English students with certification are prepared for careers in elementary and secondary education.

English Program

The English undergraduate program offers majors and minors in Literature, Professional Writing, and Creative Writing.

The Department has articulated the following goals and student learning outcomes for students at the undergraduate level.

Mission and Goals

Undergraduate English programs in the Department of English and Philosophy provide students wishing to pursue a liberal arts education training in the study of language, literature, writing, and culture. Such training will provide students with strong communication skills, an ability to gather information and use it critically, an understanding of the function of language within the culture, and a

historical and critical understanding of the role literature plays within the human experience.

Student Learning Outcomes

1. **Goal:** To understand the significance of language, literature, and culture as active forces in the formation and expression of identity, experience, and cultural and historical patterns.

Outcomes:

- Students can identify and explain the influences of language, literature, and culture on the formation and expression of identity and experience.
- Students can identify, explain, and evaluate the influences of language, literature, and culture on the formation and expression of cultural and historical patterns.

2. **Goal:** To understand literature and other cultural artifacts as important sources of knowledge about the diversity of human experience, insight about history and culture, and wisdom about what it means to be human.

Outcomes:

- Students can identify and describe the ways in which literature and other cultural artifacts are important sources of knowledge, insight, and wisdom.
- Students can compare and evaluate knowledge they derive from literary and cultural sources.
- Students can articulate and defend the value of language, literature, and culture in giving meaning to our lives.

3. **Goal:** To understand language as a medium of common linguistic principles, a medium that is indispensable to thought, communication, and expression.

Outcomes:

- Students can identify and explain the common linguistic principles that make language an indispensable medium for thought, communication, and expression.
- Students can analyze literary and nonliterary texts for the presence and operation of the linguistic principles of the English language.

4. **Goal:** To understand a variety of theoretical approaches to the study of language, literature, and culture and to develop the ability to employ that understanding in the study of language, literature, and culture.

Outcomes:

- Students can identify and explain major theoretical approaches to the study of language, literature, and culture.
- Students can demonstrate an ability to employ those approaches judiciously and appropriately in their study of language, literature, and culture.

5. **Goal:** To understand the craft of effective research, the various ways in which research problems are formulated and pursued in English studies, broadly conceived, and to develop the ability to employ this understanding in research projects.

Outcomes:

- Students can identify and explain the principles of effective research in English studies.
- Students can describe and explain how research problems are formulated and pursued in English studies.
- Students can formulate their own research projects employing these principles.

6. **Goal:** To understand what it means to read with critical attentiveness to elements of language, style, genre, and rhetorical occasion; and to develop an ability to employ this understanding effectively in interpreting literary and nonliterary texts and other cultural artifacts.

Outcomes:

- Students can identify elements of language, style, genre, and rhetorical occasion that may influence the reception and interpretation of literary and nonliterary texts and other cultural artifacts.
- Students can demonstrate an ability to interpret literary and nonliterary texts and other cultural artifacts using their knowledge of key elements of language, style, genre, and rhetorical occasion.

7. **Goal:** To understand what it means to write effectively in a variety of modes and genres suitable to the given rhetorical situation and to develop an ability to put this understanding into practice.

Outcomes:

- Students can identify and analyze a variety of modes and genres of writing.
- Students can identify and evaluate the rhetorical situation that makes a choice of mode or genre appropriate or suitable.
- Students can demonstrate an ability to write effectively in a variety of modes and genres suitable to the given rhetorical situation.

Placement in English Composition Courses

Regulations and procedures governing student placement in the composition-course sequence are summarized under Placement into English and Mathematics Courses (p. 65). Students should consult with the Director of Composition concerning applicability toward Objective 1 requirements of writing courses taken at other institutions.

English Course Prerequisites and Standards

Students must complete Objective 1 or its equivalent before enrolling in 2000-level ENGL courses. At least one semester of lower-division literature is prerequisite for 3000 and 4000-level literature courses. To enroll in a 4000-level course, students must have junior or senior standing. To graduate as an English major or with an English minor, a student must maintain at least a 2.25 grade point average in courses within the English curriculum. Some courses may have additional prerequisites.

Philosophy Program

The Philosophy Program offers courses on the history of philosophy, philosophical issues, and the cognitive skills required in philosophy. These offer students a deeper understanding of our past and our place in the world, as well as helping them to develop analytic and writing skills that are valuable in all disciplines. Students take either Introduction to Philosophy (PHIL 1101) or

Introduction to Ethics (PHIL 1103) to partially meet Objective 4 of the General Education Requirements. The Philosophy Program offers a bachelor's degree and a minor to our undergraduate students. After graduation, philosophy students are well prepared to enter law school or graduate degree programs, or to pursue careers that require strong analytical and writing skills.

Mission and Goals

The Philosophy Program provides students pursuing a liberal arts education training in the history of philosophy, philosophical issues, and the analytic skills required in philosophy. This training will provide students with strong analytical and writing skills, the ability to read philosophical texts critically, the ability to formulate and defend philosophical positions, and a grasp of the historical context and broader implications of philosophical positions.

Student Learning Outcomes:

1. Undergraduate Philosophy students will be able to write clear, organized, and grammatically correct prose.
2. Students will be able to read philosophical texts critically.
3. Students will be able to formulate a clear and substantive position regarding a major philosophical problem.
4. Students will be able to develop cogent arguments in support of that position, and to recognize and criticize the strongest arguments against it.
5. Students will be aware of major philosophers' arguments relevant to that position.
6. Students will be aware of the larger historical and intellectual context of the problem addressed.
7. Students will be aware of the broader implications of the position embraced.

Folklore Program

Folklore is the dynamic, expressive culture that we learn in informal interactions with people we meet regularly, or that we learn through informal communication. The many traditional genres of folklore include the verbal arts, such as epic, ballad, folksong, folktale, legend, myth, joke, tall tale, riddle, and proverb. Newer genres include YouTube postings, urban legends, and digital memes. Folklore also includes customary and material forms, such as games, dances, modes of dress, folk architecture, and crafts such as chair making, blacksmithing, and many forms of fabric art.

Our program at Idaho State University has two focuses: in English courses we study oral literature: the way it is learned, transmitted, and performed, and its cultural and historical contexts. In Anthropology courses we study folklore as an expression of cultural diversity and examine the social functions of folklore within cultural groups. Students minoring in folklore may take courses from both departments to obtain a well-rounded understanding of folklore.

Knowledge and skills in folklore enhance a broad range of majors. Experience in folklore benefits students interested in continuing to graduate programs in folklore, history, anthropology, English, and sociology. Knowledge of folklore is helpful, too, in public history, museum, and oral history programs. Folklore courses enhance the knowledge of both elementary and secondary teachers and of those planning to do social work or to work in business or in the health-related professions.

English and Philosophy Faculty (p. 118)**English Courses (p. 564)****Philosophy Courses (p. 622)****American Studies Courses (p. 501)**

English and Philosophy Faculty

Chair and Professor

Winston, Jessica L. * Department Chair and Professor of English, English and Philosophy. B.A. 1994, Wellesley College; M.A. 1996, Ph.D. 2002, University of California, Santa Barbara. (2002)

Vice-Chair, Director of Philosophy, and Professor

Wahl, Russell E. * Professor of Philosophy, Director of Philosophy, and Vice-Chair, English and Philosophy. B.A. 1974, Colby College; M.A. 1977, Ph.D. 1982, Indiana University. (1985)

Director of Graduate Studies in English and Professor

Levay, Matthew T. * Assistant Professor of English, Director of Graduate Studies in English, English and Philosophy. B.A. 2002, Vanderbilt University; M.A. 2004, Ph.D. 2009, University of Washington. (2014)

Director of Undergraduate Studies in English and Professor

Klein, Thomas P. * Professor of English, Director of Undergraduate Studies in English, English and Philosophy. Diploma Università per Stranieri 1989, B.A. 1990, Kenyon College; M.A. 1993, Ph.D. 1998, University of Toronto. (2000)

Director of Composition and Asst. Professor

Wilkes, Lydia. * Assistant Professor of English and Director of Composition, English and Philosophy. B.A. 2004, Louisiana Tech University; M.A. 2006, Ph.D. 2015, Indiana University. (2015)

Professors

Attebery, Brian L. * Professor of English, English and Philosophy. B.A. 1974, College of Idaho; M.A. 1976, Ph.D. 1979, Brown University. (1982)

Attebery, Jennifer Eastman. * Professor of English, English and Philosophy; Director, Folklore Program. B.A. 1973, College of Idaho; M.A. 1974, Ph.D. 1985, Indiana University. (1990)

Baergen, Ralph. * Professor of Philosophy, English and Philosophy; Chair, Human Subjects Committee, Office of Research. B.A. 1983, University of Manitoba; M.A. 1989, Ph.D. 1990, Syracuse University. (1994)

Johnson, Alan G. * Professor of English, English and Philosophy. B.A. 1984, Southern Illinois University; M.A. 1988, University of Virginia; Ph.D. 1998, University of California, Riverside. (2000)

Johnson, Margaret E. * Professor of English, English and Philosophy; Faculty Affairs Coordinator, Academic Affairs. B.S. 1986, University of California, Berkeley; M.A. 1990, San Jose State University; Ph.D. 1998, University of Oregon. (1999)

Schmidt, Roger P. * Professor of English, English and Philosophy. B.A. 1980, M.A. 1985, Ph.D. 1989, University of Washington. (1989)

Whitaker, Curtis L. * Professor of English, English and Philosophy. B.A. 1986, University of California, Davis; M.A. 1997, Ph.D. 2001, University of California, Los Angeles. (2001)

Wolter, Brent. * Professor of English, English and Philosophy. B.A. 1991, Wartburg College; M.A. 1999, University of Birmingham; Ph.D. 2005, University of Wales. (2005)

Associate Professors

Goslee, Susan M. * Associate Professor of English, English and Philosophy. B.A. 1993, Swarthmore College; M.A. 2001, University of Alabama; Ph.D. 2007, University of Utah. (2007)

Hellwig, Harold H. * Associate Professor of English, English and Philosophy. B.A. 1972, SUNY-Buffalo; M.A. 1976, California State University, Fullerton; Ph.D. 1985, University of California-Los Angeles. (1987)

Launspach, Sonja L. * Associate Professor of English, English and Philosophy. B.A., B.F.A. 1982, M.A. 1995, Ph.D. 1998, University of South Carolina. (1999)

Schultz-Hurst, Bethany. * Assistant Professor, English and Philosophy. B.A. 2000, Colorado State University; M.F.A. 2003, Eastern Washington University. (2003)

Skidmore, James R. * Associate Professor of Philosophy, English and Philosophy. B.A. 1992, B.A. 1993, Washington State University; Ph.D. 2000, University of Minnesota. (2000)

Assistant Professors

Berger, Jacob F. * Assistant Professor of Philosophy, English and Philosophy. B.A. 2005, Swarthmore College; Ph.D. 2013, The Graduate Center, City University of New York. (2014)

Lawrimore, David. * Assistant Professor of English, English and Philosophy. B.A. 2005, University of North Carolina at Chapel Hill; M.A. 2010, Ph.D. 2015, University of Florida. (2015)

VanWinkle, Matthew. * Assistant Professor of English, English and Philosophy. B.A. 1995, Boston University; M.A. 1998, Ph.D. 2006, Boston College. (2012)

Watkins, Robert Dennis. * Assistant Professor of English, English and Philosophy. B.A. 2005, M.A. 2008, Utah State University; Ph.D. 2014, Iowa State University. (2014)

Zink, Amanda J. * Assistant Professor of English, English and Philosophy. B.A. 2000, Olivet Nazarene University; M.A. 2005, University of Massachusetts; Ph.D. 2013, University of Illinois, Urbana-Champaign. (2013)

Senior Lecturers

Hall, Brandon B. * Associate Lecturer of English, English and Philosophy. B.A. 1998, University of Idaho; M.A. 2002, Idaho State University. (2003)

Lattin, Dawn M. * Associate Lecturer of English, English and Philosophy. B.A. 1997, M.A. 2001, Idaho State University. (2003)

Norton, Melissa Ann. * Senior Lecturer of Philosophy, English and Philosophy; Adjunct Faculty, Sport Science and Physical Education. B.A. 1981, Whitworth College; M.A. 1985, Claremont Graduate University. (1997)

Pfister, Thomas. * Senior Lecturer in English, English and Philosophy. B.A. 1977, M.S. 1980, University of Illinois; M.A. 1987, Northwestern University; Ph.D. 1996, University of Wisconsin-Madison. (1996)

Associate Lecturers

Cole, Tera. * Associate Lecturer of English, English and Philosophy. B.A. 1994, University of California, Santa Cruz; M.A. 2010, Idaho State University. (2010)

Donovan, Carlen M., Associate Lecturer of English, English and Philosophy. B.A. 1997, M.A. 2002, Idaho State University. (2002)

Donovan, Jr., William P., Associate Lecturer of English, English and Philosophy. B.A. 2002, M.A. 2007, Idaho State University. (2005)

Johnson, Sylvia L., Associate Lecturer of English, English and Philosophy. B.A. 1998, M.A. 2003, Idaho State University. (1994)

Robinson, Monica, Associate Lecturer, Communication, Media, and Persuasion; Assistant Lecturer, English and Philosophy. B.A. 1981, University of Colorado; J.D. 1984, University of Idaho Law School. (2004)

Stubbs, Michael E., Associate Lecturer in English, English and Philosophy. B.A. 2002, Brigham Young University; M.A. 2005, University of Alaska, Fairbanks; D.A. 2008, Idaho State University. (2010)

Assistant Lecturers

Ang, Ching-E (Nobel), Assistant Lecturer of Philosophy, English and Philosophy. B.A. 2001, National University of Singapore; M.A. 2004, Ph.D. 2009, University of Florida. (2013)

Fuller, Jennifer, Assistant Lecturer in English, English and Philosophy. B.A. 2007, Furman University; M.A./Ph.D. 2013, University of Tulsa. (2015)

Peppers, Cathy, Lecturer of English, English and Philosophy. B.A. 1984, Macalester College; M.A. and M.F.A. 1988, Bowling Green State University; Ph.D. 1997, University of Oregon. (1998)

Adjunct Instructors

Barker
 Brumfield
 Carney
 Chadwick
 Charles
 Christensen
 Claflin
 Coates
 DeWall
 Haas
 Haeberle
 Harker
 Howard
 F. Johnson
 Katsilometes
 Lambson
 McCurdy
 Olsen
 Packer
 P. Schmidt
 Smith
 Topper
 VanBezooyen
 Vause
 Wood
 Yerka

Emeriti Faculty

Cantrill, Dante K.,* Professor, English. 1974-2005

Engebretsen, Terry O.,* Associate Professor, English and Philosophy. 1988-2014

Goldbeck, H. Janne, Professor, English. 1976-2006

Kijinski, John L., Dean, College of Arts and Sciences; Professor, English and Philosophy. 1985-2007

King, Kathleen, Associate Professor, English. 1984-2007

King, William L., Professor, English and Philosophy. 1960-1994

Levenson, Carl A.,* Professor, Philosophy. 1981-2016

Montgomery, Tracy T.,* Associate Professor, English and Philosophy. 1990-2013

Mullin, Anne E., Associate Professor, English and Philosophy. 1990-2000

Myers, Rosemary N., Director, Individualized Education Programs; Assistant Professor, English and Philosophy. 1960-1999

Schow, H. Wayne, Professor, English and Philosophy. 1967-1999

Smith, Denzell S., Professor, English and Philosophy. 1972-1991

Swetnam, Susan H.,* Professor, English and Philosophy. 1979-2013

Tate, Paul D., Dean, Graduate School; Professor, English and Philosophy. 1976-2006

Walsh, Mary Ellen,* Professor, English and Philosophy. 1971-2002

Westphal, Jonathan A. G.,* Professor, English and Philosophy. 1981-2011

B.A. English, Creative Writing Option

Program Admissions Requirements

There are no program admission requirements for the B.A. in English, Literary option.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
ENGL 2206	Creative Writing Workshop	3
ENGL 2211	Introduction to Literary Analysis	3
ENGL 2280	Grammar and Usage	3
or ENGL 2281	Introduction to Language Studies	
ENGL 3306	Intermediate Creative Writing Workshop	3
ENGL 3311	Literary Criticism and Theory	3
ENGL 4406	Advanced Creative Writing Workshop	3
ENGL 4494	Senior Seminar in Creative Writing	3
Select two of the following survey courses:		6
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	
ENGL 2268	Survey of British Literature II 19th Century to Present	
ENGL 2277	Survey of American Literature I Beginnings to 1860	
ENGL 2278	Survey of American Literature II 1860 to Present	
Select two of the following genre study courses:		6
ENGL 3321	Genre Studies in Drama	
ENGL 3322	Genre Studies in Poetry	
ENGL 3323	Genre Studies in Fiction	
ENGL 3324	Genre Studies in NonFiction	
ENGL 3327	Special Topics in Genre	
Select one of the following language studies courses:		3
ENGL 4480	Varieties of American English	
ENGL 4481	Studies In Grammar	

ENGL 4484	Rotating Topics in Linguistics	
ENGL 4486	Old English	
ENGL 4487	History of the English Language	
ENGL 4488	Introduction to Sociolinguistics	
Select one of the following period courses:		3
ENGL 4461	Studies in Classical Literature	
ENGL 4462	Studies in Medieval Literature	
ENGL 4463	Studies in Renaissance Literature	
ENGL 4464	Studies in Seventeenth Century Literature	
ENGL 4465	Studies in Eighteenth Century Literature	
ENGL 4466	Studies in Nineteenth Century Literature	
ENGL 4467	Studies in Late Nineteenth Century Literature	
ENGL 4468	Studies in Early Twentieth Century Literature	
ENGL 4469	Studies in Contemporary Literature	
Select one of the following theme, identity, and performance studies courses:		3
ENGL 3305	Art of the Film II	
ENGL 3328	Gender in Literature	
ENGL 3356	Ethnicity in Literature	
ENGL 4453	American Indian Literature	
ENGL 4470	Post-Colonial Literature	
ENGL 4490	Topics in Folklore	
ENGL 4492	Folklore and Literature	
Select one of the following advanced writing courses:		3
ENGL 4401	Advanced Composition	
ENGL 4405	Creative Writing in the Schools	
ENGL 4406	Advanced Creative Writing Workshop (in a different genre)	
ENGL 4409	Literary Magazine Production	
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	6
	Free Electives	32
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. English, Literary Option

Program Admissions Requirements

There are no program admission requirements for the B.A. in English, Literary option.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
ENGL 2211	Introduction to Literary Analysis	3
ENGL 2280	Grammar and Usage	3
or ENGL 2281	Introduction to Language Studies	
ENGL 3311	Literary Criticism and Theory	3
ENGL 4491	Senior Seminar in Literature	3
Select two of the following survey courses:		6
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	
ENGL 2268	Survey of British Literature II 19th Century to Present	
ENGL 2277	Survey of American Literature I Beginnings to 1860	
ENGL 2278	Survey of American Literature II 1860 to Present	
Select one of the following genre courses:		3
ENGL 3321	Genre Studies in Drama	
ENGL 3322	Genre Studies in Poetry	
ENGL 3323	Genre Studies in Fiction	
ENGL 3324	Genre Studies in NonFiction	
ENGL 3327	Special Topics in Genre	
Select two of the following period courses:		6
ENGL 4461	Studies in Classical Literature	
ENGL 4462	Studies in Medieval Literature	
ENGL 4463	Studies in Renaissance Literature	
ENGL 4464	Studies in Seventeenth Century Literature	

ENGL 4465 Studies in Eighteenth Century
Literature

ENGL 4466 Studies in Nineteenth Century
Literature

ENGL 4467 Studies in Late Nineteenth Century
Literature

ENGL 4468 Studies in Early Twentieth Century
Literature

ENGL 4469 Studies in Contemporary Literature

Select one of the following major figure courses: 3

ENGL 4472 Proseminar in a Major Literary Figure

ENGL 4473 Chaucer

ENGL 4474 Milton

ENGL 4476 Shakespeare

ENGL 4477 Shakespeare in Performance

Select one of the following themes and identity courses: 3

ENGL 3328 Gender in Literature

ENGL 3356 Ethnicity in Literature

ENGL 4453 American Indian Literature

ENGL 4470 Post-Colonial Literature

Select one of the following language studies courses: 3

ENGL 4480 Varieties of American English

ENGL 4481 Studies In Grammar

ENGL 4484 Rotating Topics in Linguistics

ENGL 4486 Old English

ENGL 4487 History of the English Language

ENGL 4488 Introduction to Sociolinguistics

Electives - 9 additional elective credits from English courses listed in Literary Option, Professional Writing Option and Creative Writing Option, or the following courses, 6 credits of which must be upper-division courses. 9

ENGL 1107 Nature of Language (Satisfies General
Education Objective 7)

ENGL 1115 Major Themes in Literature (Partially
satisfies General Education Objective 4)

ENGL 1126 Art of Film I (Partially satisfies General
Education Objective 4)

ENGL 1175 Literature and Ideas (Partially satisfies
General Education Objective 4)

ENGL/ANTH 2212 Introduction to Folklore and Oral
Tradition

ENGL 2257 Survey of World Literature I
Beginnings through 16th Century
(Partially satisfies General Education
Objective 4)

ENGL 2258 Survey of World Literature II 17th
Century to Present (Partially satisfies
General Education Objective 4)

ENGL 3305 Art of the Film II

ENGL 3341 Bible as Literature

ENGL 3353 The West in American Literature

ENGL 3367 Language in the United States

ENGL 4433	Methods Teaching English	
ENGL 4440	Philosophy and Literature	
ENGL 4441	History of Literary Criticism	
ENGL 4455	Studies in National Literatures	
ENGL 4456	Comparative Literature	
Total Credits		45

Major Requirements	45
Upper Division Free Electives	6
Free Electives	32
Total Credits	120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37

B.A. English, Professional Writing Option

Program Admissions Requirements

There are no program admission requirements for the B.A. in English, Professional Writing option.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
	Objective 1	6
	Objective 2	3
	Objective 3	3
	Objective 4	6
	Objective 5	7
	Objective 6	6
	Students must fulfill Objective 7 or Objective 8	3
	Objective 7	
	Objective 8	
	Objective 9	3
Total Credits		37

Major Requirements

Code	Title	Credits
ENGL 2206	Creative Writing Workshop	3
ENGL 2211	Introduction to Literary Analysis	3
ENGL 2280	Grammar and Usage	3
or ENGL 2281	Introduction to Language Studies	
ENGL 3307	Professional and Technical Writing	3
ENGL 3308	Business Communications	3
ENGL 4401	Advanced Composition	3
ENGL 4407	Topics in Professional Writing	3
ENGL 4410	Writing Internship	3
ENGL 4493	Senior Seminar Professional Writing	3
	Select TWO of the following writing, reasoning, and media courses:	6
	CMP 1110	Media Writing
	CMP 2231	Introduction to Graphic Design
	CMP 2241	Introduction to Public Relations

CMP 3310	Multiplatform Storytelling	
CMP 3346	Public Relations Writing	
ENGL 4410	Writing Internship (3 additional credits)	
PHIL 2201	Introduction to Logic	
Select 12 additional English elective credits (excluding ENGL 1101, ENGL 1101P, ENGL 1102, ENGL 1122, & ENGL 1123), 9 credits of which must be upper-division.		12
Total Credits		45

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements	45
	Upper Division Free Electives	9
	Free Electives	29
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Philosophy - Pre-Law Option

Program Admissions Requirements

There are no program admission requirements for the B.A. in Philosophy, Traditional option.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - PHIL 2201		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
PHIL 2201	Introduction to Logic	3
PHIL 3305	History of Philosophy Greek Reason and Christian Faith	3
PHIL 3353	Philosophy of Law	3
PHIL 4450	Ethical Theory	3
PHIL 4460	Theory of Knowledge	3

B.A. Philosophy - Traditional Option

Program Admissions Requirements

There are no program admission requirements for the B.A. in Philosophy, Traditional option.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - PHIL 2201		
Objective 8		

PHIL 4492	Senior Tutorial	3
One course from the following:		3
PHIL 3355	Political and Social Philosophy	
POLS 3313	Introduction to Political Philosophy	
POLS 4418	Topics in Political Theory	
POLS 4420	Contemporary Political Theory	
One course from the following:		3
POLS 2249	Introduction to Criminal Law	
POLS 4442	Constitutional Law	
POLS 4443	Civil Rights and Liberties	
POLS 4445	Jurisprudence	
6 additional credits of philosophy electives.		6
Total Credits		30

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
Major Requirements (w/o General Education)		27
Upper Division Free Electives		18
Free Electives		38
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree/requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
PHIL 2201	Introduction to Logic	3
PHIL 3305	History of Philosophy Greek Reason and Christian Faith	3
PHIL 3315	History of Philosophy Early Modern Philosophy	3
PHIL 4450	Ethical Theory	3
PHIL 4460	Theory of Knowledge	3
PHIL 4492	Senior Tutorial	3
12 additional credits of philosophy electives.		12
Total Credits		30

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (w/o General Education)	27
	Upper Division Free Electives	21

Free Electives	35
Total Credits	120
ISU Degree Requirements (http://coursecat.isu.edu/undergraduate/degree requirements)	
ISU General Education (http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation)	

Minor in English - Creative Writing Option

Code	Title	Credits
ENGL 2206	Creative Writing Workshop	3
ENGL 2211	Introduction to Literary Analysis	3
ENGL 3306	Intermediate Creative Writing Workshop	3
ENGL 4406	Advanced Creative Writing Workshop	3
ENGL 4494	Senior Seminar in Creative Writing	3
Sect one of the following:		3
ENGL 2257	Survey of World Literature I Beginnings through 16th Century (Partially satisfies General Education Objective 4)	

ENGL 2258	Survey of World Literature II 17th Century to Present (Partially satisfies General Education Objective 4)	
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	
ENGL 2268	Survey of British Literature II 19th Century to Present	
ENGL 2277	Survey of American Literature I Beginnings to 1860	
ENGL 2278	Survey of American Literature II 1860 to Present	
Upper division English elective.		3
Total Credits		21

Minor in English - Literature Option

Code	Title	Credits
ENGL 2211	Introduction to Literary Analysis	3
ENGL 3311	Literary Criticism and Theory	3
Select two of the following survey courses:		6
ENGL 2257	Survey of World Literature I Beginnings through 16th Century	
ENGL 2258	Survey of World Literature II 17th Century to Present	
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	

ENGL 2268	Survey of British Literature II 19th Century to Present	
ENGL 2277	Survey of American Literature I Beginnings to 1860	
ENGL 2278	Survey of American Literature II 1860 to Present	
Select two additional upper division English courses.		6
Total Credits		18

Minor in English - Professional Writing Option

Code	Title	Credits
ENGL 3307	Professional and Technical Writing	3
ENGL 4401	Advanced Composition	3
ENGL 4407	Topics in Professional Writing	3
Select three of the following courses, (at least one must have the ENGL prefix):		9
ENGL 2206	Creative Writing Workshop	
ENGL 2280	Grammar and Usage	
ENGL 2281	Introduction to Language Studies	
ENGL 3308	Business Communications	

ENGL 4410	Writing Internship	
ENGL 4493	Senior Seminar Professional Writing	
PHIL 2201	Introduction to Logic (Satisfies General Education Objective 7))	
CMP 2202	Photo, Graphic, and Video Editing	
CMP 2231	Introduction to Graphic Design	
CMP 3310	Multiplatform Storytelling	
Total Credits		18

Minor in Ethics

Code	Title	Credits
PHIL 4450	Ethical Theory	3
Select 2 of the following:		6
PHIL 2220	Philosophical Issues in Religion	
PHIL 2230	Medical Ethics	

PHIL 3353	Philosophy of Law	
PHIL 3355	Political and Social Philosophy	
9 credits of Philosophy electives.		9
Total Credits		18

Minor in Film Studies

The Film Studies Minor offers an interdisciplinary curriculum to study and create visual narratives as an art form across cultural, economic, literary, global, and technological contexts. Coursework includes instruction that traces the evolution of formal aesthetics, genres, and industry standards within the medium from early cinema to contemporary digital streaming services. Students in the minor will develop critical thinking skills by analyzing movies as powerful cultural texts and cultivate creative thinking skills and professional opportunities by learning how to develop, pitch, produce, and write original works within the entertainment and documentary narrative styles.

Code	Title	Credits
Required Core:		6
ENGL 1126	Art of Film I	

ENGL 3305	Art of the Film II	
Select four courses from the following:		12
CMP 2286	Visual Rhetoric	
CMP 3310	Multiplatform Storytelling	
CMP 3312	Screenwriting	
CMP 3371	Narrative Video Production	
CMP 3373	Documentary Cinema	
ENGL 3305	Art of the Film II (with different content)	
Approved Courses in Film Studies		
Total Credits		18

Minor in Folklore

Code	Title	Credits
ENGL/ANTH 2212	Introduction to Folklore and Oral Tradition	3
Select 15 credits from:		15
ANTH 3301	Introduction to Shoshoni Folklore	
ANTH 4404	Material Culture Analysis	
ANTH 4449	Qualitative Research Methods	

ANTH 4452	American Indian Verbal Arts	
ANTH 4472	Native American Arts	
ENGL/ANTH 4490	Topics in Folklore	
ENGL 4492	Folklore and Literature	
Total Credits		18

Minor in Philosophy

A minor in philosophy is recommended for students seeking a liberal arts education.

Code	Title	Credits
18 credits of Philosophy coursework.		18
Total Credits		18

Minor in Philosophy and Religion

Code	Title	Credits
Select two of the following:		6
PHIL 2210	Introduction to Asian Philosophies	
PHIL 2220	Philosophical Issues in Religion	
PHIL 3305	History of Philosophy Greek Reason and Christian Faith	
PHIL 4425	Existentialism	

Select one of the following:		3
HIST 2241	History of World Religions	
HIST 4474	Islam in the Modern World	
SOC 3368	The Sociology of Religion	
9 credits of Philosophy electives.		9
Total Credits		18

Certificate in Biomedical Ethics

The Biomedical Ethics Certificate requires the completion of at least 12 credit hours. Of these 9 credit hours are for required courses, and the remainder may be chosen from among the approved elective courses.

Code	Title	Credits
Required Courses		
PHIL 1103	Introduction to Ethics	3
PHIL 2230	Medical Ethics	3

PHIL 4456	Ethical Issues in Healthcare Law and Policy	3
Approved Elective Course		3
Total Credits		12

Code	Title	Credits
Approved Elective Courses		
PHIL 4454	Topics in Biomedical Ethics	3
ANTH 2239	Latino Peoples and Cultures	3
ANTH 4406	American Indian Health Issues	3
ANTH 4407	Anthropology of Global Health	3
ANTH 4408	Topics in Medical Anthropology	3
ANTH 4409	Clinical Medical Anthropology	3
HIST 4479	History of Disease, Medicine, and Society	3
PSYC 4412	Ethical and Professional Issues in Psychology	2
SOC 3330	Sociology of Health and Illness	3

General Studies

Program Description	Type	Degree
General Studies, A.A. (p. 127)	Degree	A.A.
General Studies, B.A. (p. 127)	Degree	B.A.

The B.A. in General Studies and the A.A. in General studies are non-specialist degree programs designed to meet the needs of students interested in broadly-based education grounded in the liberal arts. It provides greater flexibility and

A.A. General Studies

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Program Admissions Requirements

There are no program admission requirements for the A.A. in General Studies

Major Requirements

Code	Title	Credits
Lower division credits in the arts and humanities in the College of Arts and Letters		3

B.A. General Studies

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		

breadth in subject matter than provided by traditional degree programs. To learn more about General Studies program advising, please contact:

Virginia Barnett
 Liberal Arts 174
 (208) 282-3119
 barnvirg@isu.edu

Lower division credits in the social and behavioral sciences in the College of Arts and Letters	3
Lower division credits from College of Arts and Letters, College of Business, College of Education, College of Science and Engineering, or the Kasiska Division of Health Sciences	6
Courses used by the student to fulfill General Education requirements may not be used to fulfill major requirements.	
ACAD, PEAC or DAAC courses may not be used to fulfill major requirements.	
Total Credits	12

Degree Totals

Code	Title	Credits
General Education		37
Program Admission Requirements		0
Major Requirements		12
Upper Division Free Electives		0
Free Electives		11
Total Credits		60

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree/requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Objective 8		
Objective 9		3
Total Credits		37

Program Admissions Requirements

There are no program admission requirements for the B.A. in General Studies

Major Requirements

Code	Title	Credits
Upper division credits in the arts and humanities or social and behavioral sciences in the College of Arts and Letters		21

Additional upper division credits from programs in the College of Arts and Letters, College of Business, College of Education, College of Science and Engineering, or Kasiska Division of Health Sciences, which includes the College of Health Professions, College of Nursing, College of Pharmacy, and the College of Rehabilitation and Communication Sciences. 15

Note: No more than 24 credits from any one program can be counted as part of the 36 upper division credits above.

ACAD, PEAC or DAAC courses may not be used to fulfill major requirements.

Total Credits 36

Degree Totals

Code	Title	Credits
	General Education	37
	Program Admission Requirements	0
	Major Requirements	36
	Upper Division Free Electives	0
	Free Electives	47
	Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degreerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Global Studies and Languages

Program Description	Type	Degree
Global Studies, B.A. Political and Economic Development Concentration (p. 134)	Degree	B.A.
Global Studies, B.A. Language, Literature, and Culture Concentration (p. 132)	Degree	B.A.
Global Studies, B.A. U.S. and World Affairs Concentration (p. 135)	Degree	B.A.
Spanish, B.A. Option 1 (p. 137)	Degree	B.A.
Spanish, B.A. Option 2 (p. 138)	Degree	B.A.
Spanish for the Health Professions, B.A. (p. 139)	Degree	B.A.
Global Studies, Minor (p. 137)	Minor	
French, Minor (p. 140)	Minor	
German, Minor (p. 140)	Minor	
Spanish, Minor (p. 141)	Minor	
Japanese, Minor (p. 140)	Minor	
French, Advanced Certificate (p. 142)	Certificate	
German, Advanced Certificate (p. 142)	Certificate	
Japanese, Advanced Certificate (p. 142)	Certificate	
Spanish, Advanced Certificate (p. 142)	Certificate	
French, Basic Certificate (p. 141)	Certificate	
German, Basic Certificate (p. 141)	Certificate	
Japanese, Basic Certificate (p. 141)	Certificate	

Mission

Cultural competence and the development of critical, analytical, and composition skills are crucial for career success in our world today. Global Studies and Languages was created by the joining of the department of Languages and Literatures and the International Studies program in order to more effectively and adequately prepare students for global leadership and employment. The goal of the Department of Global Studies and Languages is to impart skills in cross-cultural understanding, language, international diplomacy, and business abilities. The program at Idaho State University opens a world of opportunities for local and international careers in public service, health professions, entrepreneurship, and politics as students expand their talents and intellectual horizons beyond their own local experience. By enhancing their analytical and problem-solving skills, deepening their mastery of the history, politics, traditions, literature, and civilizations associated with other regions of the world, and speaking, listening, reading, and writing in languages other than English, students gain an understanding of areas as diverse as global market relations, communications and consumption, population movements, and the globalization of cultures, politics, and economies.

I: Global Studies Program

The Global Studies Program offers a Bachelor of Arts (BA) in Global Studies (<https://www.isu.edu/globalstudies/global-studies/ba-global-studies>). The program is interdisciplinary. Students are afforded the opportunity to explore a wide range of world cultures, languages, societies, and politics while building on a core curriculum of language, economics, international politics, international organizations, and human rights. A minor (<https://www.isu.edu/globalstudies/global-studies/minor-in-global-studies>) is also offered.

The Global Studies Program encourages students to develop a general understanding of language, culture, economics, and politics while simultaneously

offering the opportunity to specialize in one of three areas: Political and Economic Development; Language, Literature, and Culture; and The United States and World Affairs (please consult the ISU Event Calendar (<https://www.isu.edu/calendar>) for further material including information about the Frank Church Symposium on International Affairs, special seminars, and study abroad).

Our Graduates

Our graduates work in the diplomatic corps, international relations, Non-Governmental Organizations (NGOs), and broadcasting/journalism or population studies. Other potential careers include cultural affairs officer, demographer, teaching and research, international business, foreign affairs analyst, intelligence researcher, interpreter and United Nations guide. Some of our recent graduates have secured opportunities to teach English in other countries, work for the Peace Corps, Immigration/Homeland Security, educational administration, embassies, financial marketplaces, and also interpreting for Foreign Consulates. In today's interdependent world an internationally sensitive background is valued highly by employers even when hiring for positions that do not involve explicit international work.

II: Languages Program

The Languages program offers a Bachelor of Arts (BA) degree in Spanish, a Bachelor of Arts (BA) in Languages for Business Professions, a Bachelor of Arts (BA) in Spanish for the Health Professions, minors in French, German, Spanish, and Japanese, Certificates in Basic and Advanced language, and an Associate of Art (AA) degree in Russian. These courses prepare students for careers in the health professions, interpreting, translation, business, marketing, government, teaching, research, and public service. Language majors are expected to achieve satisfactory levels of proficiency in speaking, listening, reading, and writing and to acquire knowledge of the literature, history, and culture of a language. In addition, majors in languages can pursue interdisciplinary studies in related fields or add to more professional fields a foundational linguistic component advantageous for employment opportunities.

Minors in French, German, Japanese, and Spanish, and introductory and intermediate courses in Arabic, Chinese, Latin, and Russian provide an important component of the students' general education in the Humanities and complement a wide variety of majors in other disciplines, increasing the ability to compete for jobs where a knowledge of one or more foreign languages is desired. The Department of Global Studies and Languages also teaches courses in comparative literature, literature in translation, film, and cultural studies designed for a broad audience, in particular for those who lack the language competency to read major works in their original language.

The Certificate in Basic Language, offered in French, German, and Japanese, provides students with a recognized, basic credential for completion of a coherent program of study consisting of **18** credits.

The Certificate in Advanced Language, offered in French, German, Japanese, and Spanish, provides students with a recognized credential for completion of a coherent program of study consisting of **21-24** credits. Both credentials give students more flexibility in how they demonstrate language proficiency to enhance marketability and career choice options. Two years (or equivalent) of a foreign language are prerequisites to all upper-division courses in French, German, Japanese, Russian and Spanish. However, the department reserves the right to place students at a level commensurate with their knowledge of a specific language.

Language Placement Testing

It is strongly recommended that all students with previous experience in French, German, or Spanish who have not yet taken a course in the language at Idaho State University take the free placement test to determine the appropriate course in which to enroll. Placement tests are **free** to ISU students and are offered in the Counseling and Testing Center (<http://www.isu.edu/ctc>) on the Second Floor (South Wing) of Graveley Hall. Results are available **immediately** upon completion of the exam. Students who have questions about how to determine an appropriate course after taking a placement exam should contact the Department of Global Studies and Languages at (208) 282-3043. Students who have no experience in a language should enroll in the first course in the language (i.e. FREN 1101).

Language Placement Exam Results

French

Exam Score:-----Student takes:

000-281-----1101
282-345-----1102
346-402-----2201
403+-----3000+

German

Exam Score:-----Student takes:

000-327-----1101
328-416-----1102
417-547-----2201
548+-----3000+

Spanish

Exam Score:-----Student takes:

000-295-----1101
296-355-----1102
356-439-----2201 (or 2265)
440+-----3000 (or 2265)

Credit through C.L.E.P. and Other Approved Examinations

Students may receive up to 16 credits by examination (C.L.E.P., BYU Language Exams, or other exams approved by the Department) to be applied to their ISU transcripts with an "S" grade. Students who are proficient in a language other than English may satisfy one component of Objective 4 of the General Education Requirements by successfully earning four credits on one of these exams.

Language Requirement for International Students

International students cannot apply their native languages to partial fulfillment of Objective 4 of the General Education Requirements. Instead, their passing ENGL 1101 and ENGL 1102 with at least a C- average will serve the dual purpose of fulfilling Objective 1 and partially fulfilling Objective 4

General Education Requirements for the Bachelor of Arts in Languages:

1. To complete a major, students must fulfill 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).
2. Several classes offered through Languages satisfy or partially satisfy General Education Objectives 4, 7, and 9.

- **Objective 4:** One semester of Arabic, Chinese, French, German, Japanese, Latin, Russian, or Spanish at the elementary level may be taken to partially satisfy General Education Objective 4.

- **Objective 7:** ANTH 1107, ENGL 1107, or LANG 1107 satisfies General Education Objective 7.
- **Objective 9:** The following 3-credit courses taught in English satisfy General Education Objective 9: CMLT 2207 Contemporary European Culture; CMLT 2208 Cultures of the Spanish Speaking World; CMLT 2209 Cultures of East Asia; GLBL 2202 The World Today: Introduction to Global Issues.
 - Objective 9 may also be satisfied by an intermediate class (2201 or 2202) in Arabic, Chinese, French, German, Japanese, Latin, Russian, or Spanish.

Language Laboratory and Testing Center

The department maintains a Language Laboratory and Testing Center on the Pocatello campus, which includes tapes, CDs, DVDs, record and film archives, computers and video equipment. Its facilities are available to all language students.

Departmental Grade Requirement

All courses required for the majors and minors must be completed with a minimum grade of C- (C minus).

Faculty (p. 131)

Global Studies Courses (p. 577)

Arabic Courses (p. 505)

Chinese Courses (p. 522)

Comparative Literature Courses (p. 532)

French Courses (p. 571)

German Courses (p. 576)

Japanese Courses (p. 592)

Languages and Literatures Courses (p. 593)

Latin Courses (p. 594)

Russian Courses (p. 645)

Spanish Courses (p. 649)

Global Studies and Languages Faculty

Faculty

Professors

Njoku, Raphael, Department Chair and Professor, Global Studies and Languages. B.A. 1991, University of Nigeria, Nsukka; M.A. 1997, Ph.D. 2001, Vrije University (Brussels); Ph.D. 2003, Dalhousie University (Halifax). (joined in 2012)

Associate Professors

Tarp, Helen Cathleen, Associate Professor of Spanish, Global Studies and Languages. B.A. 1992, University of Idaho; M.A. 1996, Ph.D. 1999, University of New Mexico-Albuquerque. (joined in 2002)

Youngs, Yolonda, Associate Professor, Global Studies and Languages. B.A. 1993, Florida State University; M.S. 2004, Montana State University; Ph.D. 2009, Arizona State University. (joined in 2012)

Assistant Professors

Febles, Carmen, Assistant Professor, Spanish, B.A. 2002, Western Michigan University; M.A. 2004, Western Michigan University; Ph.D. 2015, University of Wisconsin-Madison. (joined in 2016)

Yik, King, Visiting Assistant Professor, Global Studies and Languages. B.A. 1982, Swarthmore College; M.B.A. 1985, Ph.D. 1997, University of Chicago. (joined in 2006)

Och, Malliga, Assistant Professor, Global Studies and Languages, Magister Artium 2008, Ludwig Maximilians Universität Munich, Germany; M.A. 2009, University of Colorado Denver; Ph.D. 2016, University of Denver. (joined in 2016)

Wrobel, Andrew, Assistant Professor, Spanish, B.A. 2006, Marquette University; M.A. 2008, Marquette University; Ph.D. 2015, Michigan State University. (joined in 2018)

Senior Lecturer

Heath, David S., Senior Lecturer, Global Studies and Languages. B.A. 1993, Idaho State University; M.A. 1996, University of Kansas. (joined in 1997)

Associate Lecturers

Bassett, Tamra A., Associate Lecturer, Global Studies and Languages. (joined in 2011)

Dillon, Sandra Irene,* Associate Lecturer, Global Studies and Languages. B.A. 2000, Idaho State University; M.A. 2002, University of Colorado, Boulder. (joined in 1998)

McCurry, Sarah H., Assistant Lecturer, Global Studies and Languages. B.A. 1978, University of Massachusetts at Boston; M.S. 1991, University of California, Los Angeles. (joined in 2001)

Assistant Lecturers

Fukuoka, Sachiko, Assistant Lecturer, Global Studies and Languages. B.A. 1999, M.Ed. 2003, Idaho State University. (joined in 2006)

Johnsen, Sanae, Assistant Lecturer, Global Studies and Languages. B.S. 1990, California State University Chico; M.Ed. 1995, Idaho State University. (joined in 1996)

Tatarova, Valia, Assistant Lecturer, Global Studies and Languages. (joined in 2014)

Wells, Nancy, Assistant Lecturer, Global Studies and Languages, B.A. 1985, Brigham Young University; M.A. 1992, Brigham Young University (joined in 2017)

Adjunct Faculty

Ashizawa, Kurino (Japanese)

Coffield, Lisa (German)

Stringfellow-Brookman, Anne (French)

Emeriti

Dolsen, Arthur, Professor, Foreign Languages. 1983-2009

Nickisch, Craig W., Professor, Foreign Languages. 1988-2004

Park, Pamela, Professor, Languages and Literature. 1985-2015

Hunt, Daniel P.,* Associate Professor of Spanish, Global Studies and Languages. 1991-2017

B.A. Global Studies with Language, Literature and Culture Concentration

Program Admissions Requirements

There are no program admission requirements for the B.A. in Global Studies

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
16 credits of a modern foreign language or the equivalent demonstrated competency		16
GLBL 2200	Simulation	1
GLBL 4400	Simulation	1
GLBL 4493	Senior Thesis	4
POLS 2221	Introduction to International Relations	3
Language, Literature and Culture Concentration		18

This area of concentration is for those wishing to study the language, literature, and culture of societies other than the United States. It is limited to concentrations in French, German, Japanese, Russian, and Spanish. No more than twelve (12) of the required eighteen (18) credits may be taken from the offerings of a single department.

French		
CMLT 2207	Contemporary European Culture (Satisfies General Education Objective 9)	
FREN 3301 & FREN 3302	French Conversation and Composition I and French Conversation and Composition II	
FREN 3341 & FREN 3342	Survey of French Literature and Civilization I and Survey of French Literature and Civilization II	
FREN 3381	French Current Affairs	
FREN 4400	French Advanced Grammar	
FREN 4470	Readings in French	
FREN 4480	Independent Studies in French	

FREN 4490	French Senior Seminar
HIST 2255	African History and Culture (Satisfies General Education Objective 9)
HIST 3323	French Revolution and the Napoleonic Legacy
HIST 3326	Twentieth Century Europe
POLS 4435	Topics in National and Regional Studies ¹

German

CMLT 2207	Contemporary European Culture (Satisfies General Education Objective 9)
GERM 3301 & GERM 3302	German Conversation and Composition I and German Conversation and Composition II
GERM 3341 & GERM 3342	Survey of German Literature and Civilization and Survey of Austrian and Swiss Literature
GERM 3381	German Current Affairs
GERM 4470	Readings in German
GERM 4480	Independent Studies in German
GERM 4490	German Senior Seminar
HIST 3326	Twentieth Century Europe
POLS 4435	Topics in National and Regional Studies ¹

Japanese

HIST 2252	East Asian History (Satisfies General Education Objective 9)
JAPN 3301 & JAPN 3302	Japanese Conversation and Composition I and Japanese Conversation and Composition II
JAPN 3341 & JAPN 3342	Survey of Japanese Literature and Civilization I and Survey of Japanese Literature and Civilization II
JAPN 4470	Readings in Japanese
POLS 4432	Comparative Politics Change and Political Order
POLS 4435	Topics in National and Regional Studies ¹

Russian

CMLT 2207	Contemporary European Culture (Satisfies General Education Objective 9)
HIST 3326	Twentieth Century Europe
POLS 4432	Comparative Politics Change and Political Order

POLS 4435	Topics in National and Regional Studies
RUSS 3301 & RUSS 3302	Russian Conversation and Composition I and Russian Conversation and Composition II
RUSS 4470	Readings in Russian
Spanish	
CMLT 2207	Contemporary European Culture (Satisfies General Education Objective 9)
HIST 2251	Latin American History and Culture (Satisfies General Education Objective 9)
SPAN 3301 & SPAN 3302	Spanish Conversation and Composition I and Spanish Conversation and Composition II
SPAN 3341 & SPAN 3342	Survey of Spanish Literature and Civilization and Survey of Latin American Literature and Civilization
SPAN 3381	Hispanic Current Affairs
SPAN 4400	Spanish Advanced Grammar
SPAN 4470	Readings in Spanish
SPAN 4480	Independent Studies in Spanish
SPAN 4490	Spanish Senior Seminar
POLS 4432	Comparative Politics Change and Political Order
POLS 4433	Politics of Developing Nations
POLS 4435	Topics in National and Regional Studies

Electives 10

Ten (10) credits to be selected from either courses listed in the Concentrations available with this degree and not taken to fulfill the requirements for one of those Concentrations; or the courses listed below; or a mixture of Concentration courses and those listed here.

Business		
FIN 4475	International Corporate Finance	3
MGT 4465	International Business	3
MKTG 4465	Globalized Markets	3

English		
ENGL 4455/CMLT 4415	Studies in National Literatures	3
ENGL 4456	Comparative Literature	3

History		
HIST 4435	History of Colonialism	3
HIST 4439	Women in World History	3
HIST 4443	Topics in European History	3
HIST 4445	Modern Ireland	3
HIST 4478	History of Empires	3

Global Studies		
GLBL 2200	Simulation	
GLBL 2202	The World Today: Introduction to Global Issues	

GLBL 2203	International Organizations Today: Conflicts and Cooperation
GLBL 3300	Travel and Study Abroad
GLBL 3301	Seminar in Global Studies
GLBL 3348	European Union: Institutions & Global Impact
GLBL 3350	International Symposium
GLBL 3355	Global Governance: Superpowers and Globalization
GLBL 3379	Environment and Geography
GLBL 3380	Gender in Global Affairs (Issues and Impact)
GLBL 4400	Simulation
GLBL 4420	Global Health and Policy
GLBL 4444	Senior Seminar (various topics)
GLBL 4466	Cultural Geography
GLBL 4470	Independent Study
GLBL 4480	International Parks and Protected Areas
GLBL 4488	Global Tourism Geography
GLBL 2285	Internship in Global Studies
GLBL 3385	Internship in Global Studies
GLBL 4485	Internship in Global Studies

Political Science		
POLS 4492	Seminar ²	1-3

Sociology		
SOC 3330	Sociology of Health and Illness	
SOC 3368	The Sociology of Religion	
SOC 4462	Power Class and Prestige	

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 84-86

¹ In consultation with your advisor and when the topic relates to political and economic development.

² In consultation with your advisor and when the topic relates to Global Studies.

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degreerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Global Studies with Political and Economic Development Concentration

Program Admissions Requirements

There are no program admission requirements for the B.A. in Global Studies

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
16 credits of a modern foreign language or the equivalent demonstrated competency		16
GLBL 2200	Simulation	1
GLBL 4400	Simulation	1
GLBL 4493	Senior Thesis	4
POLS 2221	Introduction to International Relations	3
Political and Economic Development Concentration		18

This area of concentration has as its focus issues of political and economic development in those parts of the world which at once seek the possibility of change and are threatened by change. Eighteen (18) credits are to be selected from the following list and approved by your advisor. No more than twelve (12) of these required eighteen credits are to be taken from any one department's offerings.

Anthropology

ANTH 1102	Cultural Anthropology
ANTH 4402	Ecological Anthropology

Economics¹

ECON 4433	Economic Development
ECON 4434	International Trade
ECON 4435	International Finance

History

HIST 2251	Latin American History and Culture
HIST 2252	East Asian History
HIST 2254	Middle East History and Culture
HIST 2255	African History and Culture

(Each of the 4 courses above satisfies General Education Objective 9)

HIST 4430	Global Environmental History
HIST 4478	History of Empires

Global Studies

GLBL 2202	The World Today: Introduction to Global Issues
GLBL 2203	International Organizations Today: Conflicts and Cooperation
GLBL 3301	Seminar in Global Studies
GLBL 3348	European Union: Institutions & Global Impact
GLBL 3355	Global Governance: Superpowers and Globalization
GLBL 3379	Environment and Geography
GLBL 3380	Gender in Global Affairs (Issues and Impact)
GLBL 4420	Global Health and Policy
GLBL 4444	Senior Seminar (various topics)
GLBL 4466	Cultural Geography
GLBL 4470	Independent Study
GLBL 4480	International Parks and Protected Areas
GLBL 4488	Global Tourism Geography
GLBL 2285	Internship in Global Studies
GLBL 3385	Internship in Global Studies
GLBL 4485	Internship in Global Studies

Political Science

POLS 3331	Comparative Politics Framework for Analysis
POLS 4432	Comparative Politics Change and Political Order
POLS 4433	Politics of Developing Nations
POLS 4434	Terrorism and Political Violence
POLS 4435	Topics in National and Regional Studies ²

Sociology

SOC 3335	Environmental Sociology
SOC 4462	Power Class and Prestige

Electives

10

Ten (10) credits to be selected from either courses listed in Areas of Concentration A, B, and C and not taken to fulfill the requirements for one of those Concentration; or the courses listed below; or a mixture of Concentration courses and those listed here.

Business

FIN 4475	International Corporate Finance
MGT 4465	International Business
MKTG 4465	Globalized Markets

English

ENGL 4455/CMLT 4415	Studies in National Literatures
ENGL 4456	Comparative Literature

History

HIST 4435	History of Colonialism
HIST 4439	Women in World History
HIST 4443	Topics in European History
HIST 4445	Modern Ireland
HIST 4478	History of Empires
Global Studies	
GLBL 2200	Simulation
GLBL 2202	The World Today:Introduction to Global Issues
GLBL 2203	International Organizations Today: Conflicts and Cooperation
GLBL 3300	Travel and Study Abroad
GLBL 3301	Seminar in Global Studies
GLBL 3348	European Union: Institutions & Global Impact
GLBL 3350	International Symposium
GLBL 3355	Global Governance: Superpowers and Globalization
GLBL 3379	Environment and Geography
GLBL 3380	Gender in Global Affairs (Issues and Impact)
GLBL 4400	Simulation
GLBL 4420	Global Health and Policy
GLBL 4444	Senior Seminar (various topics)
GLBL 4466	Cultural Geography
GLBL 4470	Independent Study

GLBL 4480	International Parks and Protected Areas
GLBL 4488	Global Tourism Geography
GLBL 2285	Internship in Global Studies
GLBL 3385	Internship in Global Studies
GLBL 4485	Internship in Global Studies

Political Science

POLS 4492	Seminar ³
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Sociology

SOC 3330	Sociology of Health and Illness
SOC 3368	The Sociology of Religion
SOC 4462	Power Class and Prestige

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits	53
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¹ Both ECON 2201 and ECON 2202 are prerequisites for the Economics courses below.

² In consultation with your advisor and when the topic relates to political and economic development.

³ In consultation with your advisor and when the topic relates to Global Studies.

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Global Studies with U.S. and World Affairs Concentration

Program Admissions Requirements

There are no program admission requirements for the B.A. in Global Studies.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
16 credits of a modern foreign language or the equivalent demonstrated competency		16
GLBL 2200	Simulation	1
GLBL 4400	Simulation	1
GLBL 4493	Senior Thesis	4
POLS 2221	Introduction to International Relations	3
The United States and World Affairs Concentration		18
This area of concentration is for those students whose primary interest is in American foreign policy and national security affairs. No more than twelve (12) of the required eighteen (18) credits may be taken from the offering of a single department.		
Communication, Media, and Persuasion		
CMP 4422	Conflict Management	
Economics¹		
ECON 4434	International Trade	
ECON 4435	International Finance	
Global Studies		
GLBL 2202	The World Today:Introduction to Global Issues	

GLBL 2203	International Organizations Today: Conflicts and Cooperation (Partially Fulfills Objective 6)
GLBL 3301	Seminar in Global Studies
GLBL 3348	European Union: Institutions & Global Impact
GLBL 3355	Global Governance: Superpowers and Globalization
GLBL 3379	Environment and Geography
GLBL 3380	Gender in Global Affairs (Issues and Impact)
GLBL 4444	Senior Seminar (various topics)
GLBL 4466	Cultural Geography
GLBL 4470	Independent Study
GLBL 4480	International Parks and Protected Areas
GLBL 4488	Global Tourism Geography
GLBL 2285	Internship in Global Studies
GLBL 3385	Internship in Global Studies
GLBL 4485	Internship in Global Studies

History

HIST 3309	Modern United States
HIST 4429	Foreign Relations since 1900

Political Science

POLS 3326	Recent US Foreign Policy
POLS 4403	The Presidency
POLS 4404	The Legislative Process
POLS 4425	Topics in International Politics ²
POLS 4434	Terrorism and Political Violence
POLS 4453	Public Policy Analysis

Electives 10

Ten (10) credits to be selected from either courses listed in the Concentrations available with this degree and not taken to fulfill the requirements for one of those Concentrations; or the courses listed below; or a mixture of Concentration courses and those listed here.

Business

FIN 4475	International Corporate Finance
MGT 4465	International Business
MKTG 4465	Globalized Markets

English

ENGL 4455/CMLT 4415	Studies in National Literatures
ENGL 4456	Comparative Literature

History

HIST 4435	History of Colonialism
HIST 4439	Women in World History
HIST 4443	Topics in European History
HIST 4445	Modern Ireland
HIST 4478	History of Empires

Global Studies

GLBL 2200	Simulation
GLBL 2202	The World Today: Introduction to Global Issues
GLBL 2203	International Organizations Today: Conflicts and Cooperation

GLBL 3300	Travel and Study Abroad
GLBL 3301	Seminar in Global Studies
GLBL 3348	European Union: Institutions & Global Impact
GLBL 3350	International Symposium
GLBL 3355	Global Governance: Superpowers and Globalization
GLBL 3379	Environment and Geography
GLBL 3380	Gender in Global Affairs (Issues and Impact)
GLBL 4400	Simulation
GLBL 4420	Global Health and Policy
GLBL 4444	Senior Seminar (various topics)
GLBL 4466	Cultural Geography
GLBL 4470	Independent Study
GLBL 4480	International Parks and Protected Areas
GLBL 4488	Global Tourism Geography
GLBL 2285	Internship in Global Studies
GLBL 3385	Internship in Global Studies
GLBL 4485	Internship in Global Studies

Political Science

POLS 4492	Seminar ²
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Sociology

SOC 3330	Sociology of Health and Illness
SOC 3368	The Sociology of Religion
SOC 4462	Power Class and Prestige

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 53

1

Both ECON 2201 and ECON 2202 are prerequisites for the Economics courses below.

2

In consultation with your advisor and when the topic relates to political and economic development.

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academic information/generaleducation>)

Minor in Global Studies

Code	Title	Credits
	Eight credits in a foreign language or the equivalent demonstrated competency.	8
ECON 2201	Principles of Macroeconomics	3
POLS 2221	Introduction to International Relations	3
GLBL 2200	Simulation	1
GLBL 4400	Simulation	1

Eighteen (18) credits selected from any of the courses listed in the categories (Required Courses, Areas of Concentration, and Electives) in the major requirements for the B.A. in Global Studies 18

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 34

B.A. Spanish, Option 1

Program Admissions Requirements

There are no program admission requirements for the B.A. in Spanish.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - SPAN 1101		7
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9 - SPAN 2201		4
Total Credits		39

Major Requirements

Code	Title	Credits
SPAN 1101	Elementary Spanish I	4
SPAN 1102	Elementary Spanish II	4
SPAN 2201	Intermediate Spanish I	4
SPAN 2202	Intermediate Spanish II	4
Language Component		
SPAN 3301	Spanish Conversation and Composition I	3
SPAN 3302	Spanish Conversation and Composition II	3
SPAN 3341	Survey of Spanish Literature and Civilization	3
SPAN 3342	Survey of Latin American Literature and Civilization	3

Select at least 12 credits from elective upper-division courses in French, CMLT, LANG, or in related fields in the College of Arts and Letters, or 3-12 credits of upper-level study abroad (dependent on length of stay and level of course work) using SPAN 3305. 12

Select 6 additional credits from courses in lists A and B, below 6

A - Recommended for students who have not had immersion experiences or who enter language study below the 3000 level:

SPAN 2210	Spanish for Health Care I
SPAN 2211	Spanish for Health Care II
SPAN 3300	Intensive Conversation
CMLT 2207	Contemporary European Culture (Satisfies General Education Objective 9)
CMLT 2208	Cultures of the Spanish Speaking World (Satisfies General Education Objective 9)

B -- Recommended for students who have had immersion experiences or who enter language study at the 3000 level:

CMLT 2207	Contemporary European Culture
CMLT 2208	Cultures of the Spanish Speaking World
GLBL 2270	World Regional Geography and Cultures
LANG/ANTH/ENGL 1107	Nature of Language
POLS 2221	Introduction to International Relations

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 46

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	39
	Major Requirements (w/o General Education)	38
	Upper Division Free Electives	12
	Free Electives	31
	Total Credits	120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

B.A. Spanish, Option 2

Program Admissions Requirements

There are no program admission requirements for the B.A. in Spanish.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - SPAN 1101		7
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9 - SPAN 2201		4
Total Credits		39

Major Requirements

Code	Title	Credits
SPAN 1101	Elementary Spanish I	4
SPAN 1102	Elementary Spanish II	4
SPAN 2201	Intermediate Spanish I	4
SPAN 2202	Intermediate Spanish II	4
Language Component		
SPAN 3301	Spanish Conversation and Composition I	3
SPAN 3302	Spanish Conversation and Composition II	3
SPAN 3341	Survey of Spanish Literature and Civilization	3
SPAN 3342	Survey of Latin American Literature and Civilization	3
Second language options include French, German, or Japanese. Students take the following sequences in their chosen second language:		22

French

FREN 1101	Elementary French I
FREN 1102	Elementary French II
FREN 2201	Intermediate French I
FREN 2202	Intermediate French II
Two upper-division FREN courses	

German

GERM 1101	Elementary German I
GERM 1102	Elementary German II
GERM 2201	Intermediate German I
GERM 2202	Intermediate German II
Two upper-division GERM courses	

Japanese

JAPN 1101	Elementary Japanese I
JAPN 1102	Elementary Japanese II
JAPN 2201	Intermediate Japanese I
JAPN 2202	Intermediate Japanese II
Two upper-division JAPN courses	

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits	50
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Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	39
	Major Requirements (w/o General Education)	42
	Upper Division Free Electives	18
	Free Electives	21
Total Credits		120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

B.A. Spanish for Health Professions

Program Admissions Requirements

There are no program admission requirements for the B.A. in Spanish in Health Professions.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4 - SPAN 1101		7
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9 - SPAN 2201		4
Total Credits		39

Major Requirements

Code	Title	Credits
Linguistics Core		
HCA/HE 2210/HO 0106	Medical Terminology and Communication	2
SPAN 1101 & SPAN 1102	Elementary Spanish I and Elementary Spanish II (or equivalent)	8
(Either SPAN 1101 or SPAN 1102 partially satisfies General Education Objective 4)		
Choose one:		8
SPAN 2201 & SPAN 2202	Intermediate Spanish I and Intermediate Spanish II (or equivalent)	
(Either SPAN 2201 or SPAN 2202 satisfy General Education Objective 9)		
SPAN 2265	Accelerated Intermediate Spanish	
SPAN 2210 & SPAN 2211	Spanish for Health Care I and Spanish for Health Care II	6
SPAN 3300	Intensive Conversation	3
SPAN 3301	Spanish Conversation and Composition I	3
or SPAN 3302	Spanish Conversation and Composition II	
SPAN 4400	Spanish Advanced Grammar	3
SPAN 4460 & SPAN 4461	Spanish Interpretation and Translation I and Interpretation and Translation II	8
Health Professions Core		9
Select 9 credits minimum; 3 must be upper division:		
COUN 3300	Interpersonal Skills in Health Professions	

HCA 1110	Introduction to the Allied Health Professions	
HCA 1115	US Health System	
HCA 3350	Organizational Behavior in Healthcare	
HCA 4450	Special Topics in Healthcare	
HCA 4475	Health Law and Bioethics	
NURS 3100	Professional Nursing	
PAS 4489	Independent Problems in Physician Assistant Studies	
PHIL 2230	Medical Ethics	
Other Approved Health Science Course		
Culture Core		9
Select 9 credits minimum; 3 must be upper division:		
ANTH 2239	Latino Peoples and Cultures (Satisfies General Education Objective 9)	
ANTH 4407	Anthropology of Global Health	
ANTH 4430	Human Evolution	
CMLT 2208	Cultures of the Spanish Speaking World (Satisfies General Education Objective 9)	
COUN 2200	Multicultural Development	
COUN 3300	Interpersonal Skills in Health Professions	
HIST 2251	Latin American History and Culture (Satisfies General Education Objective 9)	
HIST 4479	History of Disease, Medicine, and Society	
SOC 2248	Critical Analysis of Social Diversity (Satisfies General Education Objective 7)	
SPAN 3305	Study Abroad	
SPAN 3341	Survey of Spanish Literature and Civilization	
SPAN 3342	Survey of Latin American Literature and Civilization	
SPAN 3381	Hispanic Current Affairs	
SPAN 4493	Spanish Internship	
SPAN 4494	Topics in Language and Culture for the Professions I	
SPAN 4495	Topics in Language and Culture for the Professions II	
Other Approved Culture Course		
All required courses must be completed with a minimum grade of C- (C minus).		
Total Credits		59

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	39

Major Requirements (w/o General Education)	51	ISU Degree Requirements (p. 62)
Upper Division Free Electives	13	ISU General Education (p. 57)
Free Electives	17	
Total Credits	120	

Minor in French

Code	Title	Credits
FREN 1101	Elementary French I	4
FREN 1102	Elementary French II	4
(Either of the two courses above partially satisfies General Education Objective 4.)		
FREN 2200	Intermediate Enrichment ¹	2
FREN 2201	Intermediate French I	4
FREN 2202	Intermediate French II	4
FREN 3301	French Conversation and Composition I	3
or FREN 3302	French Conversation and Composition II	
One elective upper-division course in French		
Select one of the following:		
3		

CMLT 2207	Contemporary European Culture
CMLT 2208	Cultures of the Spanish Speaking World
CMLT 2209	Cultures of East Asia
(Each of the three courses listed above satisfies General Education Objective 9.)	
All required courses must be completed with a minimum grade of C- (C minus).	
Total Credits	27

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

Minor in German

Code	Title	Credits
GERM 1101	Elementary German I	4
GERM 1102	Elementary German II	4
(Either of the two courses above partially satisfies General Education Objective 4.)		
GERM 2200	Intermediate Enrichment ¹	2
GERM 2201	Intermediate German I	4
GERM 2202	Intermediate German II	4
GERM 3301	German Conversation and Composition I	3
or GERM 3302	German Conversation and Composition II	
One elective upper-division course in German		
3		

Select one of the following:		3
CMLT 2207	Contemporary European Culture	
CMLT 2208	Cultures of the Spanish Speaking World	
CMLT 2209	Cultures of East Asia	
(Each of the three courses listed above satisfies General Education Objective 9.)		
All required courses must be completed with a minimum grade of C- (C minus).		
Total Credits		27

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

Minor in Japanese

Code	Title	Credits
JAPN 1101	Elementary Japanese I	4
JAPN 1102	Elementary Japanese II	4
(Either of the two courses above partially satisfies General Education Objective 4.)		
JAPN 2200	Intermediate Enrichment ¹	2
JAPN 2201	Intermediate Japanese I	4
JAPN 2202	Intermediate Japanese II	4
JAPN 3301	Japanese Conversation and Composition I	3
or JAPN 3302	Japanese Conversation and Composition II	
One elective upper-division course in Japanese		
Select ONE of the following:		
3		

CMLT 2209	Cultures of East Asia
(Each of the three courses listed above partially satisfies General Education Objective 9)	
All required courses must be completed with a minimum grade of C- (C minus).	
Total Credits	27

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

CMLT 2207	Contemporary European Culture
CMLT 2208	Cultures of the Spanish Speaking World

Minor in Spanish

Code	Title	Credits
SPAN 1101	Elementary Spanish I (or equivalent)	4
SPAN 1102	Elementary Spanish II (or equivalent)	4
(Either of the two courses above partially satisfies General Education Objective 4.)		
SPAN 3301	Spanish Conversation and Composition I	3
or SPAN 3302	Spanish Conversation and Composition II	
One elective upper-division course in Spanish		
Choose one of the following sequences:		3
		10
EITHER the following three courses:		
SPAN 2200	Intermediate Enrichment ¹	
SPAN 2201	Intermediate Spanish I (or equivalent) ¹	
SPAN 2202	Intermediate Spanish II (or equivalent)	
OR the following three courses:		
SPAN 2200	Intermediate Enrichment ²	

SPAN 2210	Spanish for Health Care I	
SPAN 2211	Spanish for Health Care II	
Select one of the following:		3
CMLT 2207	Contemporary European Culture	
CMLT 2208	Cultures of the Spanish Speaking World	
CMLT 2209	Cultures of East Asia	
(Each of the three courses listed above satisfies General Education Objective 9.)		
All required courses must be completed with a minimum grade of C- (C minus).		
Total Credits		27

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

² This is a variable-credit course that may be repeated to obtain at least 4 credits.

Basic Certificate in French

Code	Title	Credits
FREN 1101	Elementary French I (or equivalent)	4
FREN 1102	Elementary French II (or equivalent)	4
FREN 2200	Intermediate Enrichment (or other 2000 course) ¹	2
FREN 2201	Intermediate French I (or equivalent)	4
FREN 2202	Intermediate French II (or equivalent)	4

All required courses must be completed with a minimum grade of C- (C minus).		
Total Credits		18

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

Basic Certificate in German

Code	Title	Credits
GERM 1101	Elementary German I (or equivalent)	4
GERM 1102	Elementary German II (or equivalent)	4
GERM 2200	Intermediate Enrichment (or other 2000 course) ¹	2
GERM 2201	Intermediate German I (or equivalent)	4
GERM 2202	Intermediate German II (or equivalent)	4

All required courses must be completed with a minimum grade of C- (C minus).		
Total Credits		18

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

Basic Certificate in Japanese

Code	Title	Credits
JAPN 1101	Elementary Japanese I (or equivalent)	4
JAPN 1102	Elementary Japanese II (or equivalent)	4
JAPN 2200	Intermediate Enrichment (or other 2000 course) ¹	2
JAPN 2201	Intermediate Japanese I (or equivalent)	4
JAPN 2202	Intermediate Japanese II (or equivalent)	4

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

All required courses must be completed with a minimum grade of C- (C minus).		
Total Credits		18

Advanced Certificate in French

Code	Title	Credits
FREN 1101	Elementary French I (or equivalent)	4
FREN 1102	Elementary French II (or equivalent)	4
FREN 2200	Intermediate Enrichment (or other 2000 course) ¹	2
FREN 2201	Intermediate French I (or equivalent)	4
FREN 2202	Intermediate French II (or equivalent)	4
Students complete 6 upper division credits in French from the following:		6
FREN 3301	French Conversation and Composition I	
FREN 3302	French Conversation and Composition II	
FREN 3303	Professional French	
FREN 3300	Intensive Conversation ²	

Additional upper division credits in the language

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 24

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

² The 3300 Intensive Conversation course may be waived if the candidate earns an Intermediate High or above on the ACTFL OPI. If the 3300 conversation course is waived by the required score, the student may graduate with 21 credits. If the student does not earn the minimum score of Intermediate High, the student must complete 24 credits as indicated above. Please speak to an advisor.

Advanced Certificate in German

Code	Title	Credits
GERM 1101	Elementary German I (or equivalent)	4
GERM 1102	Elementary German II (or equivalent)	4
GERM 2200	Intermediate Enrichment (or other 2000 course) ¹	2
GERM 2201	Intermediate German I (or equivalent)	4
GERM 2202	Intermediate German II (or equivalent)	4
Students complete 6 upper division credits in German from the following:		6
GERM 3301	German Conversation and Composition I	
GERM 3302	German Conversation and Composition II	
GERM 3303	Professional German	

GERM 3300 Intensive Conversation

Additional upper division credits in the language ²

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 24

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

² The 3300 Intensive Conversation course may be waived if the candidate earns an Intermediate High or above on the ACTFL OPI. If the 3300 conversation course is waived by the required score, the student may graduate with 21 credits. If the student does not earn the minimum score of Intermediate High, the student must complete 24 credits as indicated above. Please speak to an advisor.

Advanced Certificate in Japanese

Code	Title	Credits
JAPN 1101	Elementary Japanese I (or equivalent)	4
JAPN 1102	Elementary Japanese II (or equivalent)	4
JAPN 2200	Intermediate Enrichment (or other 2000 course) ¹	2
JAPN 2201	Intermediate Japanese I (or equivalent)	4
JAPN 2202	Intermediate Japanese II (or equivalent)	4
Students complete 6 upper division credits in Japanese from the following:		6
JAPN 3301	Japanese Conversation and Composition I	

JAPN 3302 Japanese Conversation and Composition II

JAPN 3303 Professional Japanese

Additional upper division credits in Japanese

All required courses must be completed with a minimum grade of C- (C minus).

Total Credits 24

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

Advanced Certificate in Spanish

Code	Title	Credits
SPAN 1101	Elementary Spanish I (or equivalent)	4
SPAN 1102	Elementary Spanish II (or equivalent)	4

SPAN 2200 Intermediate Enrichment (or other 2000 course) ¹

SPAN 2201 Intermediate Spanish I (or equivalent) 4

SPAN 2202	Intermediate Spanish II (or equivalent)	4
Students complete 6 upper division credits in Spanish from the following:		6
SPAN 3301	Spanish Conversation and Composition I	
SPAN 3302	Spanish Conversation and Composition II	
SPAN 3303	Professional Spanish	
SPAN 3300	Intensive Conversation ²	
Additional upper division credits in the Spanish		
All required courses must be completed with a minimum grade of C- (C minus).		
Additional upper division credits in the language		
<hr/>		
Total Credits		24

¹ This is a variable-credit course that may be repeated to obtain at least 2 credits.

² The 3300 Intensive Conversation course may be waived if the candidate earns an Intermediate High or above on the ACTFL OPI. If the 3300 conversation course is waived by the required score, the student may graduate with 21 credits. If the student does not earn the minimum score of Intermediate High, the student must complete 24 credits as indicated above. Please speak to an advisor.

History

Program Description	Type	Degree
History, B.A. (p. 145)	Degree	B.A.
History, Minor (p. 146)	Minor	

Students in History receive training in a wide range of topics and develop analytical skills in research and writing. These are among the highest elements employers seek in job candidates, and they provide the foundation for life-long learning and engaged citizenship.

Historical Thinking Objectives

The Department of History has developed the following program objectives as a guide to the design of the undergraduate curriculum. We use this list to review the department's course offerings to make sure that the students have adequate opportunities to develop toward these goals.

1. Explain historical developments and events in their global contexts.
2. Identify regions as historical entities, how they are connected, and how they have changed over time.
3. Interpret individual and collective actions in historical contexts.

4. Analyze primary and secondary sources and develop interpretations.
5. Develop and present historical interpretations in writing and in oral presentations.

Teaching Majors and Minors

Students pursuing a major in Secondary Education History follow a nearly identical curriculum to the B.A. in History. The Department recommends that those students pursue a double degree with History. All History majors and minors in Education should consult an advisor in the History Department as well as in the College of Education (p. 211).

Pre-Law Majors

A History degree provides popular and valuable training for law school. Students interested in a postgraduate legal education should consult the History Department to meet with an advisor.

History Courses (p. 585)

History Faculty (p. 144)

History Department Faculty

Chair

Heern, Zackery Mirza,* Associate Professor, History. B.A. 2002, UCLA; M.A. 2005, Ph.D. 2011, University of Utah. (2015)

Professors

Kuhlman, Erika,* Professor, History. B.A. 1983, M.A. 1987, University of Montana; Ph.D. 1995, Washington State University. (1996)

Marsh, Kevin,* Professor, History. B.A. 1989, University of Oregon; M.A. 1995, Ph.D. 2002, Washington State University. (2003)

Njoku, Raphael,* Department Chair and Professor, Global Studies and Languages. B.A. 1991, University of Nigeria, Nsukka; M.A. 1997, Ph.D. 2001, Vrije University (Brussels); Ph.D. 2003, Dalhousie University (Halifax). (2012)

Woodworth-Ney, Laura,* Executive Vice President and Provost; Professor, History. B.A. 1989, University of Idaho; M.A. 1991, Ph.D. 1996, Washington State University. (1999)

Associate Professors

Stover, Justin Dolan,* Associate Professor, History. B.S. 2003, Central Michigan University; M.A. 2005, National University of Ireland; Ph.D. 2011, Trinity College (Dublin). (2012)

Assistant Professors

Kole de Peralta, Kathleen M.,* Assistant Professor, History. B.A. 2007, M.A. 2009, University of North Florida; Ph.D. 2015, University of Notre Dame. (2015)

Robey, Sarah E., Assistant Professor, History. B.A. 2008, Northeastern University; Ph.D., 2017, Temple University. (2017)

Stango, Marie, Assistant Professor, History. B.A. New York University; M.A., Ph.D., University of Michigan. (2019)

Adjunct Faculty

Benedict, Hope, Adjunct Instructor, History. Ph.D. 1996 University of Oregon

Dunn, Andrew, Adjunct Instructor, History. M.A. Idaho State University

Hunt, Kristine, Adjunct Instructor, History. M.A. Idaho State University

Vipperman, Justin, Adjunct Instructor, History, M.A. Portland State University

Professors Emeriti

Christelow, Allan,* Professor, History. 1983-2013

Christelow, Stephanie,* Professor, History. 1990-2015

Hatzenbuehler, Ronald,* Professor, History. 1972-2013

Owens, John "Jack" B.,* Professor, History. 1975-2011

Swanson, Merwin, Professor, History. 1972-2002

B.A. History

Program Admissions Requirements

There are no program admission requirements for the B.A. in History.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6 - HIST 1101, HIST 1102, HIST 1105, HIST 1106, HIST 1111, or HIST 1112, and one Objective 6 course from outside of History.		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - HIST 1100, HIST 1120, or HIST 1118		
Objective 8 - HIST 2291		
Objective 9 - HIST 2201, HIST 2251, HIST 2252, HIST 2254, or HIST 2255		3
Total Credits		37

Major Requirements

Code	Title	Credits
World Regions - Complete three classes from the following:		9
HIST 1100	History in Film (Fulfills Objective 7)	
HIST 1101	World History I (Partially Fulfills Objective 6)	
HIST 1102	World History II (Partially Fulfills Objective 6)	
HIST 1105	Foundations of Europe (Partially Fulfills Objective 6)	
HIST 1106	Modern Europe (Partially Fulfills Objective 6)	
HIST 1111	United States History I (Partially Fulfills Objective 6)	
HIST 1112	United States History II (Partially Fulfills Objective 6)	
HIST 1118	US History and Culture (Fulfills Objective 7)	
HIST 1120	Themes in World History (Fulfills Objective 7)	
HIST 2201	Women In U.S. History (Fulfills Objective 9)	
HIST 2221	Ancient World	
HIST 2241	History of World Religions	
HIST 2251	Latin American History and Culture (Fulfills Objective 9)	
HIST 2252	East Asian History (Fulfills Objective 9)	

HIST 2254	Middle East History and Culture (Fulfills Objective 9)	
HIST 2255	African History and Culture (Fulfills Objective 9)	
Research Skills - Complete both of the following:		6
HIST 2291	The Historian's Craft (Fulfills Objective 8)	
HIST 4491	History Seminar	
Upper Division United States History - Complete two of the following:		6
HIST 3307	Early North America	
HIST 3308	Industrialization and Reform in the United States	
HIST 3309	Modern United States	
HIST 4420	Topics in U.S. History	
HIST 4421	Federal Indian Relations	
HIST 4423	Idaho History	
HIST 4425	Women in the North American West	
HIST 4427	American West	
HIST 4432	U.S. Environmental History	
HIST 4433	History of Energy	
HIST 4465	US Political History	
Upper division world, comparative, and non-U.S. history - Complete two of the following:		6
HIST 3318	History of Christianity	
HIST 3322	Religious Reformation and Conflict	
HIST 3323	French Revolution and the Napoleonic Legacy	
HIST 3325	Early Modern Europe	
HIST 3326	Twentieth Century Europe	
HIST 3327	World War I and Its Legacy	
HIST 3350	Spain in the Early Modern World	
HIST 3354	Modern Middle East	
HIST 3355	Slavery in History	
HIST 3376	Foodways in History	
HIST 4429	Foreign Relations since 1900	
HIST 4430	Global Environmental History	
HIST 4431	Topics in Global History	
HIST 4435	History of Colonialism	
HIST 4437	Families in Former Times	
HIST 4439	Women in World History	
HIST 4440	History of Revolutions	
HIST 4443	Topics in European History	
HIST 4445	Modern Ireland	
HIST 4446	Topics in Ancient History and Culture	
HIST 4448	Topics in Medieval History and Culture	
HIST 4451	Topics in Latin American History and Culture	
HIST 4452	Topics in Asian History and Culture	
HIST 4454	Topics in Middle East History and Culture	

HIST 4474	Islam in the Modern World	
HIST 4478	History of Empires	
HIST 4479	History of Disease, Medicine, and Society	
Upper division history electives - take 9 credits of any upper division history course.		9
Total Credits		36

Students who may want to pursue a graduate degree in History or a related discipline are urged to take at least two years of a foreign language.

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (w/o General Education)	30
	Upper Division Free Electives	12
	Free Electives	41
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Minor in History

Code	Title	Credits
Students must take at least three of the following World Regions courses:		9

HIST 1100	History in Film (Satisfies General Education Objective 7)	
HIST 1101	World History I (Partially satisfies General Education Objective 6)	
HIST 1102	World History II (Partially satisfies General Education Objective 6)	
HIST 1105	Foundations of Europe (Partially satisfies General Education Objective 6)	
HIST 1106	Modern Europe (Partially satisfies General Education Objective 6)	
HIST 1111	United States History I (Partially satisfies General Education Objective 6)	
HIST 1112	United States History II (Partially satisfies General Education Objective 6)	
HIST 1118	US History and Culture (Satisfies General Education Objective 7)	
HIST 1120	Themes in World History (Satisfies General Education Objective 7)	
HIST 2201	Women In U.S. History (Satisfies General Education Objective 9)	
HIST 2221	Ancient World	
HIST 2241	History of World Religions	
HIST 2251	Latin American History and Culture (Satisfies General Education Objective 9)	
HIST 2252	East Asian History (Satisfies General Education Objective 9)	
HIST 2254	Middle East History and Culture (Satisfies General Education Objective 9)	
HIST 2255	African History and Culture (Satisfies General Education Objective 9)	

One additional lower division History course.		3
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TWO additional upper division courses in History.		6
Total Credits		18

Idaho Museum of Natural History

Director: Dr. Leif Tapanila

Mission Statement

The mission of the Idaho Museum of Natural History is to acquire, preserve, study, interpret, and display objects relating to the natural history of Idaho and the Northern Intermountain West for research and education. The Museum seeks to enhance in the citizens of Idaho and visitors an understanding of Idaho's natural and cultural heritage. Specific areas of interest encompass the anthropology, botany, geology, paleontology, and zoology of Idaho and the Northern Intermountain West. Audiences served include citizens of Idaho, visitors, and the national and international community of students and scholars. Information is disseminated through exhibitions, public and professional presentations, publications, formal and informal education, telecommunications, and other interpretive programs.

Curators in Anthropology, Earth Science, and Life Science lead national and international research. Our active research profile supports acquisition and use of collections for all areas of natural history research and education. ISU faculty and

students have access to Museum collections for instruction, training, and graduate theses and dissertations.

Our Public Programs Division develops and implements programs and exhibitions on a wide range of science topics, emphasizing current Museum research and environmental and ecological themes. These programs are both university level and for K-12 education.

The Museum offers undergraduate and graduate students educational credits under the Museum subject code and through courses in Anthropology, Biology, Education, Geosciences, History, and other affiliate Idaho State University departments. See Museum course descriptions (p. 605) in the All Courses section of the catalog.

For more information, please visit the Idaho Museum of Natural History's website at: isu.edu/imnh/.

Faculty (p. 147)

Courses (p. 605)

Idaho Museum of Natural History Faculty

Director

Tapanila, Leif,* Director and Earth Sciences Division Head, Idaho Museum of Natural History; Professor, Geosciences. Honors B.Sc. 1999, University of Waterloo, Waterloo, Canada; M.S. 2000, Laurentian University, Sudbury, Canada; Ph.D. 2005, University of Utah. (2005)

Dr. Leif Tapanila, Director

Jesse Pruitt, Manager and Technical Specialist

Research Curator

Dr. Leif Tapanila, Earth Science Division

Speer, Charles A., Assistant Professor, Anthropology. B.A. 2003, M.A. 2006, Ph.D. 2013, University of Texas San Antonio. (2015)

Professors Emeriti

Akersten, William A., Associate Professor, Biological Sciences and Geosciences; Curator, Vertebrate Paleontology, Idaho Museum of Natural History. 1985-2009

Holte, Karl E., Professor, Botany; Curator, Museum. 1965-1997

Trost, Charles H., Professor, Biological Sciences; Curator, Museum. 1968-2000

Museum Staff

Terri Bergmeier, Director of Development

Christina Reddoor, Senior Accountant

Curt Schmitz, Registrar

Amber Tews, Anthropology Collections Manager

Amy Commendador-Dudgeon, Earl R. Swanson Archaeological Repository Manager

Janet Bala, Life Sciences & Ray J. Davis Herbarium Collections Manager

Idaho Virtualization Laboratory

Military Science

Program Description	Type	Degree
Military Science (p. 150)	Minor	

The U.S. Army Reserve Officers' Training Corps (ROTC) was established at Idaho State University under provisions recommended to the State Board of Education and in accordance with national requirements. Participation by students in the program is voluntary. The objective of the Advanced Course is to provide students who have the ability and desire, the opportunity to become commissioned officers in the United States Army, Army Reserve, or Army National Guard. Students interested in scholarship information may contact Officer In Charge CPT Johanna Mosby, Garrison Hall Rm B-7B, (208) 282-3754.

Admission Requirements

Advanced Course cadets must:

1. Have satisfied one of the following requirements: Successful completion of the Basic Course, the 28-day summer Basic Camp (BC) or Basic Training. In addition, all students must have completed a minimum of 54 credits toward their chosen career field.
2. Be able to complete all requirements for commissioning before their 34th - birthday (waivable to 39 years).
3. Successfully complete the prescribed survey and general screening tests.
4. Execute an individual contract with the government in which they agree to complete the Advanced Course at Idaho State University or any other - institution at which they may thereafter be enrolled where such a program is offered.
5. Devote a minimum of eight hours a week to the military training prescribed by the Secretary of the Army.
6. Contract into the Army Reserve ROTC Control Group. This enlistment does not involve additional training or duty but is to ensure compliance with the terms of the contract signed by the student.
7. Agree to accept a commission if tendered.
8. Serve as a commissioned officer in the active Army, the Army Reserve, or the National Guard. Guaranteed Reserve Forces Duty (GRFD) assignments are available for those who do not want to compete for the active duty assignments. The GRFD assignment allows officers to serve in the Reserves or National Guard with an Army Commission.
9. Complete the requirements for Professional Military Education (PME). The PME system is designed to articulate skills and knowledge that are required of all U.S. Army Officers. The professional military education component consists of two parts, a baccalaureate degree in an academic field and a military history course.
10. Participate in either the Ranger Challenge fitness class or the Military Style fitness class every semester until commissioned.

Scope of Instruction

Instruction in ROTC is divided into the Basic Course and the Advanced Course. Each is described below.

General

The program of instruction leading to a commission as a second lieutenant consists of academic classes in military science, one or more several-week summer training events, and a bachelor's degree in an academic major (including the Bachelor of Applied Science). Training in leadership is emphasized. Instruction is given in subjects common to all branches of the Army with emphasis placed on the following: organization of the Army and ROTC;

individual weapons and marksmanship; military history; management; leadership; map reading, land navigation, and orienteering; U.S. Army and national security; military teaching principles; tactics; communications; operations; logistics; administration; military law; and the role of the United States military in world affairs.

Basic Course

Normally taken the freshman and sophomore years, the Basic Course gives the student the opportunity to experience the Army without incurring any obligation.

Satisfactory completion of the Basic Course fulfills one of the requirements for continuation in the four-year program and acceptance into the Advanced Course. Those students desiring to take the Advanced Course but lacking the credit for the Basic Course may satisfy the requirements by attending a 28-day summer camp or by completing Military Basic Training. Veterans and Reserve/National Guard members may receive credit for the Basic Course.

Students in the Basic Course who are contemplating taking the Advanced Course are highly encouraged to take either the Military Style Fitness class or the Ranger Challenge fitness class.

Advanced Course

In addition to the requirements of the Basic Course, the Advanced Course requires two additional years of military science and a 29-day training course, which provides practical application of instruction previously given. Admission to the Advanced Course is by permission of the Chair of the Department of Military Science.

Scholarships

The Military Science department offers a multitude of scholarships, both Cadet Command Army-sponsored and Idaho State University-sponsored. Cadet Command offers a four-year scholarship to high school graduating seniors, which pays up to 100% of tuition and education fees OR room and board (chosen by the student). There is an additional book allowance. There are also limited numbers of 4, 3, and 2-year scholarships available once a student is on campus. In addition, Army scholarship winners also receive a tax-free subsistence allowance for 10 months per year, increasing yearly upon progression through Military Science. Each student selected for a scholarship must serve in the National Guard, Reserves, or Active Duty as a commissioned officer upon commissioning. For more information, please visit <https://www.goarmy.com/rotc.html>. Students who are in the Advanced Course (junior and senior status) and some qualifying sophomores will also receive an additional monthly subsistence.

Uniforms

Basic and Advanced Course students will be provided uniforms and equipment for ROTC classes. All such items of clothing and equipment are the property of the U.S. government and are provided solely for the purpose of furthering the military training of the student. Students are responsible for the safekeeping, care, and return of the property issued to them.

Basic Course Required Courses/Activities

(select a, b, or c):

Code	Title	Credits
a) The following four courses:		
MSL 1101 & 1101L	Leadership and Personal Development and Leadership and Personal Development Laboratory	2
MSL 1102 & 1102L	Introduction to Tactical Leadership and Introduction to Tactical Leadership Laboratory	2
MSL 2201 & 2201L	Innovative Team Leadership and Innovative Team Leadership Laboratory	3
MSL 2202 & 2202L	Foundations of Tactical Leadership and Foundations of Tactical Leadership Laboratory	3
Optional:		
MSL 1110	Military Style Physical Fitness Civilian Only	
MSL 1104	Ranger Challenge	
b) Attendance at ROTC Leaders Training Course ¹		
		6
c) Prior military service		

¹ Attendance at ROTC Leader Training Course (LTC) is one means of completing the Basic Course. Students may sign up for MSL 2290 to receive 6 elective credits for LTC.

ROTC Advanced Course Required Courses/Activities

(For contracted cadets ONLY):

Code	Title	Credits
MSL 3301 & 3301L	Adaptive Technical Leadership and Adaptive Team Leadership Laboratory	4
MSL 3302 & 3302L	Leadership in Changing Environments and Leadership in Changing Environments Laboratory	4
MSL 3310	ROTC Physical Fitness ¹	1
MSL 3320	Leadership in US Military History	3
MSL 4401 & 4401L	Developing Adaptive Leaders and Developing Adaptive Leaders Laboratory	4
MSL 4402 & 4402L	Leadership in a Complex World and Leadership in a Complex World Laboratory	4
Optional:		
MSL 1104	Ranger Challenge	
MSL 3380	ROTC Nurse Seminar Training	
MSL 3390	Leader Development and Assessment Course LDAC ²	
MSL 4492	Military Science Internship	

¹ Required if student is on scholarship and/or contracted.

² Attendance at Leader Development and Assessment Course (MSL 3390) is required of all contracted students normally between junior and senior year. Students may sign up for MSL 3390 to receive academic credit for Leader Development and Assessment Course.

Faculty and Staff (p. 149)

Military Science Courses (p. 604)

Military Science Faculty and Staff

Officer In Charge/Department Chair

CPT Johanna Mosby
Officer In Charge/Assistant Professor of Military Science
Department Chair

Instructors

SFC Ian Parker
Military Instructor

LTC (Ret) Fred Flynn
Military History Professor

Staff

Photina Haumschilt
Administrative Assistant

Shaun Sloan
Idaho ROTC Program Assistant
Army Human Resources Manager

SGT Braxton Beasley
Recruiting NCO

Idaho Army National Guard Partner

Minor in Military Science

(For contracted cadets ONLY)

Required Military Science Courses :

Code	Title	Credits
MSL 3301 & 3301L	Adaptive Technical Leadership and Adaptive Team Leadership Laboratory	4
MSL 3302 & 3302L	Leadership in Changing Environments and Leadership in Changing Environments Laboratory	4
Physical Fitness		4
MSL 3310	ROTC Physical Fitness ¹	
MSL 3320	Leadership in US Military History	3
MSL 3390	Leader Development and Assessment Course LDAC	6
MSL 4401 & 4401L	Developing Adaptive Leaders and Developing Adaptive Leaders Laboratory	4
MSL 4402 & 4402L	Leadership in a Complex World and Leadership in a Complex World Laboratory	4
MSL 4492	Military Science Internship ²	6
Total Credits		35

¹ This is a 1-credit course, taken once each semester, for a total of 4 credits.

² Optional, if student qualifies.

Music

The School of Performing Arts (<http://www.isu.edu/sopa>) is comprised of the music, theatre, and dance disciplines. The goal of the School is to provide the highest quality education and performance activities to those whom it serves. We are located in the Stephens Performing Arts Center, as well as the Fine Arts building (for most music courses), and the Red Hill Building (for most dance courses).

Program Description	Type	Degree
Music Education, B.M.E. (p. 155)	Degree	B.M.E.
Music, B.M. (p. 154)	Degree	B.M.
Music, B.A. or B.S. (p. 154)	Degree	B.A. or B.S.
Music, Minor (p. 156)	Minor	

Music Program

The Department of Music (see also <https://www.isu.edu/music/>) offers programs leading to Bachelor of Music, Bachelor of Arts, Bachelor of Science, Bachelor of Music Education, and Master's of Education (Music Education) degrees. Students who major in music take courses that provide a broad cultural background for careers in music teaching, performance, graduate study and music-related work. Membership in organized music groups, including Wind Ensemble, Symphonic Band, Marching Band, Symphony Orchestra, Concert Choir, ISU Women's Choir, Jazz Bands, Chamber Choir, Opera Workshop, and a variety of small woodwind, brass, percussion, string, vocal, and keyboard ensembles, is open to all university students. ISU's music department provides a wide variety of experiences and opportunities to work with dedicated faculty and guest artists, in an unparalleled state-of-the-art performance facility touted as one of the best in the nation.

Accreditation

The Idaho State University Department of Music is an accredited institutional member of the National Association of Schools of Music (NASM). Its music education program is also accredited by regional and state accrediting agencies.

Goals and Objectives

The Department of Music at Idaho State University has the following goals:

1. To offer instruction of the highest possible quality to music students;
2. To provide an atmosphere of professional experiences in music, including concerts, master classes, and guest artists;
3. To prepare professional musicians for careers in teaching and/or performance;
4. To offer courses and musical experiences as an element of cultural enrichment for students who do not major in music;
5. To provide opportunities for continued participation by all university students in various performing ensembles and other musical activities; and
6. To exhibit a strong posture in community service through co-sponsorship and promotion of music cultural events.

The student-related outcome objectives relating to these goals are as follows:

1. Students will gain professional level performing experience in a variety of settings including large ensemble, small ensemble, and solo performance. These performance experiences will culminate in the presentation of a solo recital in the senior year.
2. Students will gain a broad understanding of the history of music, focusing primarily upon Western musical culture, but also including an overview of

world musics. Students will gain an understanding of how music functions within society and culture.

3. Students will gain a broad understanding of music theory, including part writing, analysis, and composition.
4. Students will develop ear training skills, including the abilities to hear and notate pitch, intervals, chords, and rhythms. Students will be able to hear and identify procedures and large scale structures that are used in music.
5. Students, especially those in the Bachelor of Music Education degree, will gain knowledge and experience in the art of teaching music.
6. Students will gain and be able to display basic competencies on piano, including performance, sight reading, transposition, harmonization, and proper piano technique.

Performing Organizations

Membership in organized music groups is open to all university students subject to approval of the respective directors. All ensembles listed below may be repeated at any time without limitation. However, only 8 credits of music ensembles can be counted toward graduation credit hour requirements. All music majors are required to participate in a large ensemble (band, orchestra, choir) as a portion of their applied music study. **Separate participation in chamber ensembles is expected during the degree program, and a chamber ensemble performance is required as a portion of the student's senior recital program.

Applied Music—Private Lessons

Private lessons are offered in band and orchestral instruments, voice, piano, percussion, and classical guitar for 1-3 credits each semester.

A special music fee is charged for enrollment in applied music. Students taking applied music lessons pay fees currently set at \$175, \$240, and \$350, depending on the level and length of the lessons. Please see the Class Schedule for the applicable fee under Applied Music Lessons.

Students desiring to major or minor in music will normally be classified as entering freshmen in the 1000 level of the series. All music majors must pass the department's Junior Standing Exam in applied music (usually taken at the end of the sophomore year) and register for, and pass, a minimum of 2 semesters at the 3000 level and 1-2 semesters at the 4000 level. Music Education students will take applied music for 1 credit per semester; Music Performance students will take applied music for 2-3 credits per semester. The courses in this section all use the MUSA prefix.

Department	Freshman	Sophomore	Junior	Senior
Piano	1121	2221	3321	4421
Voice	1131	2231	3331	4431
Organ	1141	2241	3341	4441
Strings	1161	2261	3361	4461
Brass	1165	2265	3365	4465
Woodwinds	1175	2275	3375	4475
Percussion	1185	2285	3385	4485

Any student registering in any of the above course numbers except those at the 4000 level will be required to register for MUSC 1107 and attend the weekly General Recital Hours/Studio Classes and evening concerts until degree requirements for recital attendance have been fulfilled.

Applied Jazz Study: non instrument-specific applied lessons are also available in jazz. There are two levels based on the student's year/standing in the department. Applied jazz is not a substitute for degree-sequence lessons on a student's primary instrument, and does not have co-requisites for MUSC 1107 or any ensemble requirements. Enrollment in applied Jazz lessons requires the permission of the student's primary studio teacher (as applicable). These lessons are for 1 credit only.

Jazz MUSA 2291 MUSA 4491

A student who does not plan to attend the required recital hour/studio classes and evening concerts should register for one of the following secondary instruction course numbers.

Code	Title	Credits
MUSA 1120	Music Lessons Secondary Piano	1
MUSA 1130	Music Lessons Secondary Voice	1
MUSA 1140	Music Lessons Secondary Organ	1
MUSA 1160	Music Lessons Secondary Strings	1
MUSA 1164	Music Lessons Secondary Brass	1
MUSA 1174	Music Lessons Secondary Woodwinds	1
MUSA 1184	Music Lessons Secondary Percussion	1

These courses are an undergraduate classification for non-majors, for prospective majors who do not yet meet the level of proficiency expected of a major, or for majors who wish to study an additional applied music area other than their major area.

Admission

All prospective music majors/minors and transfer students must contact the department office prior to their first semester's registration to be assigned a departmental advisor and take diagnostic placement tests and performance auditions. Acceptance as a music major/minor is dependent upon auditions and these examinations. Examinations should be taken before or during the week preceding classwork.

Performance Auditions

These auditions will include technique demonstration and repertoire performance.

Theory Placement Exam

This exam will determine the specific semester of music theory to which a student will be assigned.

Piano Placement Exams

These tests serve to determine the specific semester and section of class piano or private instruction to which a student will be admitted. All music majors must successfully complete the department's required piano proficiency to graduate. Credits in MUSC 1118, MUSC 1119, MUSC 2218, MUSC 2219, or MUSA 1120 may be used toward passing the piano proficiency. The student must register for piano or piano class each semester until passing the proficiency exam.

Special Graduation Requirements

1. An overall accumulative grade point average of 2.0 for all University courses is required for graduation. The Music Department requires a Music GPA of 2.5 as a standard for graduation. An additional requirement is that a music major or minor must earn no less than a "C-" grade in each music course. Furthermore, at least a "C-" grade must be received to advance to another course for which the earlier course is a prerequisite, or to advance to the next level of a continuation course.
2. All Music majors must pass the department's Junior Standing Exam (usually taken at the end of the sophomore year) and register for, and pass, applied music lessons, a minimum of 2 semesters at the 3000 level, and 1-2 semesters at the 4000 level.

Music Department Handbook

A handbook is available online at <https://www.isu.edu/media/libraries/school-of-performing-arts/music/music-handbook.pdf>, which describes more completely the facilities, policies, course sequencing, and departmental operations. Prospective students and music majors/minors are urged to become familiar with its contents.

Faculty (p. 153)

Music Courses (p. 606)

Music: Applied Lesson Courses (p. 608)

Music: General Education Courses (p. 610)

Music: Performance Courses (p. 610)

Music Faculty

Director and Professor

Hasenpflug, Thom,* Director, School of Performing Arts; Department Chair and Professor, Music. B.A. (2) 1989, M.M. 1993, Ithaca College; D.M.A. 1996, University of Colorado-Boulder. (2003)

Professors

Anderson, Scott E.,* Professor, Music; Director of Choral Activities. B.A. 1982, Whitworth College; M. Mus. 1984, Westminster Choir College; D.M.A. 1993, University of Missouri-Kansas City. (1992-2003; 2005)

Bond, Kori R.,* Professor, Music. B.A. & B.S., 1992, Walla Walla College; M.Mus. 1994, Northern Illinois University; D.Mus. 1999, Indiana University. (1999)

Brooks, John Patrick,* Professor, Music; Director of Bands. B.S. 1980, University of Illinois; M.Mus. 1985, D.M.A. 1995, University of Cincinnati-Conservatory of Music. (1991)

Lane, Kathleen, Professor, Music. B.M.E. 1978, University of Montana; M.Mus. 1988, Yale School of Music. (1993)

Livingston-Friedley, Diana, Professor, Music. B.Mus. 1988, Westminster Choir College; M.Mus. 1991, Indiana University; D.M.A. 2002, Mason Gross School of the Arts at Rutgers, The State University of New Jersey. (2002)

Associate Professors

Helman, Shandra Kay, Associate Professor, Music. B.M. 2000, Lawrence University; M.A. 2004, University of Iowa; D.M.A. 2008, University of Wisconsin-Madison. (2008)

Kloss, Thomas,* Associate Professor and Music Education Coordinator, Music. B.M.E. 1997, B.M. 1998, University of Arizona; M.M. 2005, Ph.D. 2011, Arizona State University. (2011)

Assistant Professors

Armstrong, Jon, Assistant Professor of Music and Director of Jazz, Music. B.A. 2006, B.Mus. 2006, University of Washington; M.F.A. 2008, California Institute of the Arts. (2015)

Choi, Hyeri, Assistant Professor of Music, Music. B.M. 2006, Ewha Womans University (Korea); Certificate 2007, Toho Gakuen School of Music Orchestra Academy (Japan); M.M. 2009, D.M.A. 2014, Eastman School of Music. (2016)

Sorensen, Julie K., Assistant Professor, Music. B.A. 2003, University of Wyoming; M.M. 2007, University of Nebraska-Lincoln; Ph.D. 2018, Texas Tech University. (2011)

Lecturers

Cox, Eleanor Instructor of Cello B.M. 2001, Indiana University-Bloomington; M.A. 2003, University of Wisconsin-Madison; D.M.A. 2009, University of Wisconsin-Madison.

Adjunct Faculty

Adams, G. Instructor of Bassoon; B.Mus., University of Southern California 1966; Master of Arts, Sam Houston State University 1977; D.M.A. University of Texas 1983.

Adams, M. Instructor of music

Armstrong, Erin S. Director Civic Concert Band, Clarinet; BM 2003, Carnegie Mellon University; MFA 2008, California Institute of the Arts

Colby, Donald J. Instructor of String Bass; B.S. 1993, University of Illinois, Urbana Champaign; M.I.S. 2007, University of Illinois Springfield

Drake, J. Instructor of Organ

Friedley, G. Instructor of music; D.M.A. 2013, University of Utah

Helman, Michael A. Instructor of Horn; B.M.E. 2001, Columbus State University; M.A. 2004, University of Iowa

Hughes, S. Instructor of oboe; B.M.E. 1985, Idaho State University

Lauk, Natalia Departmental Accompanist; B.M. 1996, Krasnoyarsk State Institute of Arts, Russia, M.A. 2000, Krasnoyarsk State Institute of Arts, Russia

Smith, W. Instructor of tuba.

Emeriti

Earles, Randy A.,* Associate Dean of Fine Arts and Humanities; Professor, Music. 1991-2019

George, Thom Ritter, Professor, Music. 1983-2008

Stanek, Alan E., Chair and Professor, Music. 1976-2001

B.A. or B.S. in Music

Students completing the Bachelor of Arts in Music or Bachelor of Science in Music must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog.)

Degree candidates whose applied major is voice are encouraged to take a second year of a foreign language--French or German.

Basic Music Requirements

Code	Title	Credits
MUSC 1103	Theory of Music I	3
MUSC 1104	Theory of Music II	3
MUSC 1107	Recital Attendance (7 semesters)	0
MUSI 1108	The World of Music (Partially satisfies General Education Objective 4)	4
MUSC 1113	Aural Skills I	1
MUSC 1114	Aural Skills II	1
MUSC 2203	Theory of Music III	3
MUSC 2204	Theory of Music IV	3
MUSC 2213	Aural Skills III	1
MUSC 2214	Aural Skills IV	1

Bachelor of Music

The Bachelor of Music degree is designed for students preparing for graduate study or careers in performance. A student majoring in Music Performance may select to specialize in **voice, piano, guitar, strings, winds, or percussion**. Students completing the Bachelor of Music must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this Catalog). Voice majors are required to take two semesters of foreign language study, either French or German. (They are encouraged to elect a second year in a different language.)

Basic Music Requirements (common to all options)

Code	Title	Credits
MUSC 1103	Theory of Music I	3
MUSC 1104	Theory of Music II	3
MUSC 1107	Recital Attendance (7 semesters)	0
MUSI 1108	The World of Music (Partially satisfies General Education Objective 4)	4
MUSC 1113	Aural Skills I	1
MUSC 1114	Aural Skills II	1
MUSC 2203	Theory of Music III	3
MUSC 2204	Theory of Music IV	3
MUSC 2213	Aural Skills III	1
MUSC 2214	Aural Skills IV	1
MUSC 3304	Music History I	3
MUSC 3305	Music History II	3
MUSC 3306	Music History III	3
MUSC 3311	Form and Analysis	2
MUSC 4495	Senior Recital	2
Piano Proficiency ¹		4

MUSC 3304	Music History I	3
MUSC 3305	Music History II	3
MUSC 3306	Music History III	3
MUSC 3311	Form and Analysis	2
MUSC 4495	Senior Recital	2
Applied Music		8
Piano Proficiency ¹		
Large Ensembles (band, orchestra, choir)		8
Chamber Ensembles		
Upper Division Music Theory/History Elective		2-3
Other Music Electives ²		2

¹ Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-MUSC 1119, MUSC 2218-MUSC 2219, or MUSA 1120) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.

² Music electives must be chosen from Music courses and Music General Education courses, not from Applied Music or Music Ensembles (performing organizations).

Upper Division Music Theory/History Elective	2-3
Other Music Electives ²	2
Total Credits	41-42

¹ Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-MUSC 1119, MUSC 2218-MUSC 2219, or MUSA 1120) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.

² Music electives must be chosen from Music courses and Music General Education courses, not from Applied Music or Music Ensembles (Performing Organizations).

Instrumental Option

Code	Title	Credits
MUSC 3320	Instrumental Conducting	2
MUSC 4411	Instrument Literature	2
MUSC 4412	Instrument Pedagogy	2
Applied Music (major instrument)		24
Large Ensembles (band, orchestra, choir)		8
Chamber Music (instrumental ensemble)		4

Piano Option

Code	Title	Credits
MUSC 3319	Choral Conducting	2
or MUSC 3320	Instrumental Conducting	
MUSC 3395	Junior Recital	1
MUSC 4413	Piano Literature	2

MUSC 4414	Piano Pedagogy	2
Applied Music (piano)		24
Large Ensembles (band, orchestra, choir)		7
Chamber Music (keyboard collaboration)		4

Voice Option

Code	Title	Credits
MUSC 2225	Voice Diction	2
MUSC 3319	Choral Conducting	2
MUSC 3325	Advanced Voice Diction	2
MUSC 4419	Voice Literature	3
MUSC 4420	Voice Pedagogy	3
Foreign language requirement ¹		8

FREN 1101 & FREN 1102	Elementary French I and Elementary French II (Partially satisfies General Education Objective 4)
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OR	
GERM 1101 & GERM 1102	Elementary German I and Elementary German II (Partially satisfies General Education Objective 4)

Applied Music (voice)	16
Large Ensembles (choir)	8
Opera Workshop	2

¹ Voice majors are required to take two semesters of foreign language study, either Elementary French I (FREN 1101) and Elementary French II (FREN 1102) OR Elementary German I (GERM 1101) and Elementary German II (GERM 1102). They are encouraged to elect a second year in a different language.

Bachelor of Music Education

Music Education students must complete requirements and be fully admitted to the Teacher Education Program before they can take courses in professional Education number 3000 and above. Refer to the Teacher Education Program (p. 211) in the College of Education section of this Undergraduate Catalog.

Students completing the Bachelor of Music Education must complete 8 of the 9 General Education Objectives (minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this Catalog).

Professional Education Requirements

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 4401	Content Area Literacy	3
SPED 3350	Creating Inclusive Classrooms	3
EDUC 4492	Secondary Music Education Student Teaching Internship	12

Basic Music Requirements

Code	Title	Credits
MUSC 1103	Theory of Music I	3
MUSC 1104	Theory of Music II	3
MUSC 1107	Recital Attendance (7 semesters)	0
MUSI 1108	The World of Music (Partially satisfies General Education Objective 4)	4
MUSC 1113	Aural Skills I	1
MUSC 1114	Aural Skills II	1
MUSC 1127	Class Voice	1
or MUSP 1172	ISU Women's Choir	
or MUSP 1173	Concert Choir	
MUSC 2203	Theory of Music III	3
MUSC 2204	Theory of Music IV	3
MUSC 2213	Aural Skills III	1
MUSC 2214	Aural Skills IV	1
MUSC 2252	Introduction to Music Education	1

MUSC 2255	Woodwind Methods	2
MUSC 2256	Brass Methods	2
MUSC 2258	Percussion Methods	2
MUSC 2259	String Methods	2
MUSC 3304	Music History I	3
MUSC 3305	Music History II	3
MUSC 3306	Music History III	3
MUSC 3311	Form and Analysis	2
MUSC 3312	Music Technology	2
MUSC 3319	Choral Conducting	2
MUSC 3320	Instrumental Conducting	2
MUSC 3333	Elementary Music Methods	3
MUSC 3334	Choral Music Methods	2
MUSC 3335	Instrumental Music Methods	2
MUSC 3338	Field Experience in Music Education	2
MUSC 4401	Orchestration	2
Applied music (major instrument or voice)		7
Large Performing Ensembles (band, orchestra, choir)		7

In Addition:

Solo or joint senior recital

Piano proficiency¹

Chamber Ensembles

¹ Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-MUSC 1119, MUSC 2218-MUSC 2219, or MUSA 1120) may be used toward passing the piano proficiency. The candidate must register for piano each semester until able to pass the proficiency exam.

Minor in Music

Code	Title	Credits
MUSC 1103	Theory of Music I	3
MUSC 1104	Theory of Music II	3
MUSC 1107	Recital Attendance (4 semesters)	0
MUSI 1108	The World of Music	4
MUSC 1113	Aural Skills I	1
MUSC 1114	Aural Skills II	1
Applied Music		
2 credits at the 1000 level, 2 credits at the 2000 level.		4
Large Performing Ensembles		
Band, Choir or Orchestra		4
Music Elective		2
<hr/>		
Total Credits		22

Theatre and Dance

Program Description	Type	Degree
Theatre, B.A. (p. 158)	Degree	B.A.
Theatre, Minor (p. 159)	Minor	
Dance: Choreography and Performance, B.A. (p. 159)	Degree	B.A.
Dance, Minor (p. 160)	Minor	

The School of Performing Arts (<http://www.isu.edu/sopa>) is comprised of the music, theatre, and dance disciplines. The goal of the School is to provide the highest quality education and performance activities to those whom it serves. We are located in the Stephens Performing Arts Center, as well as the Fine Arts building (for most music courses), and the Red Hill Building (for most dance courses).

Theatre Program

Idaho State University's Theatre Program (see also <https://www.isu.edu/theatre/>) provides a well-rounded curriculum that is both fundamental and innovative. Theatrical productions range from classics to contemporary, from intimate to large-scale, and from student-directed to faculty produced. The program is structured to provide a rich mixture of academic, design, and performance courses, coupled with a broad array of electives, enabling ISU students to pursue theatre as a profession.

Accreditation

The Idaho State University Theatre Program is an accredited institutional member of the National Association of Schools of Theatre (NAST).

Objectives

The primary objectives related to the undergraduate Theatre Program (B.A.) are to help all students obtain a level of achievement appropriate to entry-level professionals in their specialty areas:

- Knowledge of theatre as a social and aesthetic experience.
- Knowledge of the history of theatre and related dramatic literature.
- Competence in basic acting, directing, and technical skills.
- Competence in study and research skills.
- Ability to think clearly, logically, and independently.
- Ability to effectively communicate and work within a collaborative art.

The theatre curriculum is designed to provide not only a humanistic awareness of our history and civilization through a study of dramatic literature and theatre history, but also to allow the student to pursue courses of study that develop skills and techniques applicable to the production of plays and other theatrical media. A balance between theoretical and practical courses is offered in several degree programs. A theatre degree can lead to careers in such varying areas as theatre, television, film, arts administration, education, journalism, public relations, personnel work, sales, government work, and law.

Special Graduation Requirements

The Department of Theatre and Dance requires a departmental GPA of 2.5 as a standard for graduation. An additional requirement is that a theatre or dance major or minor must earn no less than a "C-" grade in each THEA or required dance course that is fulfilling a degree program requirement to be considered passing. Furthermore, at least a "C-" grade must be received to advance to

another course for which the earlier course is a prerequisite, or to advance to the next level of a continuation course.

Students completing any bachelor's degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog.)

Auditions

Auditions for Department of Theatre and Dance productions are open to all University students. Theatre majors are required to audition for every mainstage production in order to remain in good standing as a theatre major. Only theatre majors in good standing are eligible to audition for theatre scholarships.

Dance Program

The Dance Program at Idaho State University provides a liberal arts-based approach to the study of dance as a unique discipline within a collaborative, interconnected setting. Training in Dance from ISU may lead to professional careers in performance, choreography, and direction; arts administration; dance writing and criticism; dance medicine and dance therapy as well as serve as the basis for graduate study. Throughout the year, the Department of Theatre and Dance produces faculty and guest artist dance performances that range from repertory dance concerts to evening-length works of dance, theatre, musical theatre, and more. See the Dance Program's web pages at <https://www.isu.edu/dance/>.

Theatre and Dance Faculty (p. 158)

Dance Courses (p. 538)

Dance Activity Courses (p. 540)

Theatre Courses (p. 652)

Theatre and Dance Faculty

Chair and Professor

Young, Tara,* Department Chair and Professor, Theatre and Dance. B.A. 1996, M.F.A. 2002, Southern Illinois University. (2002)

Professors

Gross, Chad,* Professor, Theatre and Dance. B.A. 1999, Central Washington University; M.F.A. 2002, Southern Illinois University. (2003)

Schroder, Norman E.,* Professor, Theatre and Dance. B.A. 1978, University of Wisconsin at Eau Claire; M.A. 1988, Ph.D., 1994, Bowling Green State University. (1999)

Associate Professor

Ballam, Vanessa,* Associate Professor, Theatre and Dance. B.F.A. 2002, B.A. 2003, Utah State University; M.F.A. 2006, Indiana University. (2012)

Assistant Professor

Diehl, Kathleen, Assistant Professor, Theatre and Dance. B.A. 1993, SUNY Plattsburgh; M.S.W. 1995, Case Western Reserve University; M.F.A. 2010, College of Brockport. (2017)

B.A. Theatre

Program Admissions Requirements

There are no program admission requirements for the B.A. in Theatre

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		7
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - THEA 2251		
Objective 8		
Objective 9		3
Total Credits		38

Major Requirements

Code	Title	Credits
THEA 1107	Theatre and Dance Showcase	0
THEA 1111	Stagecraft	3
THEA 1121	Script Analysis	3
THEA 1131	Voice and Diction	2
DANC 1141	Dance for Musical Theatre	2
THEA 1191	Theatre Production	1

Shura, Joel, Assistant Professor, Theatre and Dance. B.A. 2010, University of California Irvine; M.F.A. 2018, University of Montana. (2018)

Yeates, Paul, Assistant Professor, Theatre and Dance. B.F.A. 2010, B.A. 2010, University of Utah; M.F.A. 2014, University of Connecticut. (2017)

Senior Lecturer

Zimmerly, Lauralee, Senior Lecturer, Theatre and Dance. B.A. 1978, University of the Pacific; M.A. 1990, University of California, Los Angeles. (1999)

Assistant Lecturers

Espinosa, Stefan, Assistant Lecturer, Theatre and Dance. B.F.A. 2006, University of Arizona; M.F.A. 2011, University of Houston. (2012)

Emerita

Lloyd, Marcia L., Professor, Dance. 1977-2001

THEA 2201	Fundamentals of Theatre Design	3
THEA 2214	Makeup	2
THEA 2221	Stage Costume Construction	3
THEA 2251	Fundamentals of Acting	3
THEA 2252	Intermediate Acting Scene Study	3
THEA 3304	Stage Management	2
THEA 3391	Theatre Production	1
THEA 4400	Theatre Background I	3
THEA 4401	Theatre Background II	3
THEA 4455	Beginning Stage Direction	3
Choose 2 credits from the following dance courses:		2
DANC 1100	Ballet I	
DANC 1120	Jazz Dance I	
DANC 1130	Modern Dance I	
DANC 2230	Modern Dance II	
DAAC 1140	Tap Dance I	
DAAC 1141	Tap Dance II	
Choose 21 credits of THEA electives, including at least 4 upper division credits:		21
THEA 1118	Oral Interpretation of Literature	
THEA 2211	Drafting	
THEA 2218	Stage Dialects	
THEA 3300	Theatre Movement Workshop	
THEA 3301	Theatre Voice Workshop	
THEA 3302	Beginning Costume Materials Workshop	
THEA 3303	Advanced Costume Materials Workshop	

THEA 3311	Scene Design
THEA 3312	Stage Lighting Design
THEA 3330	Stage Combat
THEA 3390	Practicum Theatre Arts
THEA 3393	Independent Research Projects I
THEA 4402	Stage Costume History
THEA 4403	Stage Costume Design
THEA 4404	Special Topics in Acting
THEA 4405	Advanced Costume Construction
THEA 4412	Scenic Painting
THEA 4419	20th Century Theatre
THEA 4420	American Theatre History
THEA 4421	Basic Pattern Drafting for Stage Costuming
THEA 4422	Period Pattern Drafting for Stage Costuming
THEA 4426	Advanced Scene Design
THEA 4431	Advanced Acting Shakespeare
THEA 4432	Advanced Acting Audition Techniques
THEA 4433	Advanced Acting in Musical Theatre
THEA 4434	Advanced Acting Realism

THEA 4456	Advanced Stage Direction
THEA 4465	Musical Theatre History
THEA 4470	Contemporary Theatre
THEA 4490	Practicum Theatre Arts II
THEA 4491	Independent Research Projects II
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Total Credits	60

Degree Totals

Code	Title	Credits	
Program Admission Requirements			0
General Education			37
Major Requirements (w/o General Education)			57
Upper Division Free Electives			20
Free Electives			6
<hr/>		Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Minor in Theatre

Code	Title	Credits	Theatre Electives (Must be approved by department.)	20
THEA 1101	Survey of Theatre (Partially satisfies General Education Objective 4)	3	Total Credits	23
THEA 1107	Theatre and Dance Showcase (4 semesters)	0		

Bachelor of Arts Dance: Choreography and Performance

Required Basic Dance Technique Courses

Dance majors are expected to enroll in a dance technique class every semester. Auditions for placement into the appropriate level take place at the beginning of each semester.

Code	Title	Credits	
Ballet (must include DANC 2200)			4
Jazz Dance (must include DANC 2220)			4
Modern Dance (must include DANC 3330)			6
Electives (must be selected from):			3
DANC 2290	Contact Improvisation		
DANC 3300	Ballet III		
DANC 3320	Jazz Dance III		
DANC 3390	Workshop Cultural Forms		
OR any DAAC course			
Other Required Courses			
DANC 1104	World Dance Local Identity	3	
DANC 1107	Theatre and Dance Showcase (7 semesters)	0	
DANC 1110	Elements of Movement	2	

DANC 1191	Dance Production	1	
or DANC 3391	Dance Production		
DANC 2205	Dance in the Modern Era (Partially satisfies General Education Objective 4)	3	
DANC 2210	Dance Composition I	3	
DANC 3301	Performance and Society	3	
DANC 3311	Theatre Movement Workshop	2	
DANC 3380	Dance Management and Production	2	
DANC 4401	Aesthetic Issues in Dance	3	
DANC 4410	Dance Composition II	3	
DANC 3360	Methods of Dance for Children	3	
or DANC 4460	Dance Teaching Methods and Curriculum Design		
PE 2243	Anatomical Foundations of Human Activity	3	
PE 3370	Care and Prevention of Athletic Injuries	3	
THEA 1111	Stagecraft	3	
Select ONE of the following courses:			
THEA 2214	Makeup	2	
THEA 2221	Stage Costume Construction	3	

THEA 3304	Stage Management	2	MUSC 1102	Elements of Music	2
THEA 3312	Stage Lighting Design	3	MUSI 1106	American Music (Partially satisfies General Education Objective 4)	3
Select ONE of the following courses:					
MUSI 1100	Introduction to Music (Partially satisfies General Education Objective 4)	3			

Minor in Dance

The Dance minor may be taken by any Idaho State University student. Courses are especially designed to meet the needs of students involved in the performing arts, liberal arts, and education, as well as private dance studio teachers and those interested in pursuing professional careers in dance.

Students pursuing a minor in Dance should be enrolled in a dance technique class every semester. See also the list of courses recommended for students minoring in Dance.

Required Courses

Code	Title	Credits
DANC 1104	World Dance Local Identity	3
DANC 1107	Theatre and Dance Showcase (4 semesters)	0
DANC 1110	Elements of Movement	2
DANC 2205	Dance in the Modern Era (Partially satisfies General Education Objective 4)	3
DANC 2210	Dance Composition I	3
DANC 3380	Dance Management and Production	2
DANC 1100	Ballet I	2
DANC 1130	Modern Dance I	2
DANC 2230	Modern Dance II	2
Select ONE of the following courses:		
DANC 3301	Performance and Society	3
DANC 3311	Theatre Movement Workshop	2
DANC 3360	Methods of Dance for Children	3
DANC 4401	Aesthetic Issues in Dance	3
DANC 4410	Dance Composition II	3
DANC 4460	Dance Teaching Methods and Curriculum Design	3

Political Science

Programs

Program Description	Type	Degree
Political Science, B.A./B.S. (p. 162)	Degree	B.A./B.S.
Political Science, Minor (p. 162)	Minor	

The study of governments and human beings as decision makers is at once an ancient discipline and one of the most recently developed social sciences. Political inquiry reaches back to the recorded beginnings of human society, for individuals have always been curious about the nature of governments, the bases of authority and personality of leaders, the obligations of followers, and consequences of public policies. Although interest persists in these matters, inquiry has broadened to include scientific observations about politics which utilize relatively new techniques of analysis that are common to many of the social sciences. The newer emphasis is upon systematic procedures of investigation, rigorous standards of proof, comparative analysis and interdisciplinary studies.

Both of these approaches—the traditional and the behavioral—are offered in the undergraduate and graduate levels of study. The curriculum provides background in the theory and practice of politics and techniques of methodological inquiry for the student with general interests. It offers training of a general and specific nature that is useful for persons planning to seek careers in education, the legal profession, state and local government, urban and regional planning, the federal bureaucracy and journalism, or in any of the proliferating quasi-public organizations which seek to monitor the political processes or to influence the content of public policy.

The Department of Political Science offers programs leading to Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Public Administration, and Doctor of Arts degrees. Within the framework of the Bachelor of Arts and Bachelor of Science programs, students may pursue a major in political science or they may choose an emphasis in pre-law. There is no required or specified curriculum which students who emphasize pre-law are expected to follow. An advisory committee has been created to assist such students in developing a curriculum that reflects their individual needs.

Outcome objectives are related to both student and program development. Student-related outcome objectives are listed below:

1. To gain a well-rounded knowledge of the basic fields of the discipline.
2. To develop an understanding of how political scientists think, gather evidence, process data, and reach tentative conclusions.
3. To think critically about political phenomena and thought.
4. To develop effective oral and written communication skills.
5. To engage in problem solving.
6. To be exposed to a rich variety of perspectives and ideas.
7. To prepare for a career or profession after graduation that is related to the political science major. This includes graduate school.

Political Science Faculty (p. 161)

Political Science Courses (p. 635)

Political Science Faculty

Chair

Lybecker, Donna L. * Department Chair and Professor, Political Science. B.A. 1992, Grinnell College; M.A. 1996, Tulane University; Ph.D. 2003, Colorado State University, Fort Collins. (2007)

Professors

Gabardi, Wayne * Professor, Political Science. B.A. 1977, Stockton State College, New Jersey; M.A. 1981, Ph.D. 1986, University of California, Santa - Barbara. (1990)

McBeth, Mark K. * Professor, Political Science. B.A. 1987, M.P.A. 1989, D.A. 1992, Idaho State University. (1988)

Assistant Professors

Kirkpatrick, Kellee J. * Assistant Professor, Political Science. B.M. 2003, Kansas State University; B.A. 2003, Kansas State University; M.S. 2006, University of Kansas; M.A. 2009, University of Kansas; Ph.D. 2012, University of Kansas. (2014)

Ryu, Shin Kue, * Assistant Professor, Political Science. B.A. 2001, Washington University, St. Louis; M.S. 2003, University of London, Queen Mary and Westfield College; M.A. 2007, Washington University, St. Louis; Ph.D 2016, George Mason University. (2017)

Stoutenborough, James W. * Assistant Professor, Political Science. B.S. 2003, Kansas State University; M.A. 2005, University of Kansas; Ph.D. 2010, University of Kansas. (2016)

Full-time Lecturer

Eckert, Thomas

Emeriti

Anderson, Sean K. * Professor, Political Science. 1993-2018

Burns, Mary Jane, * Co-Director, Women Studies Program; Associate Professor, Political Science. 1985-2006

Foster, Richard H., Jr., Professor, Political Science. 1973-2008

Hjelm, Victor S. "Butch," Dean, College of Arts and Sciences; Professor, Political Science. 1968-2001

Maughan, Ralph B. * Professor, Political Science. 1971-2007

Nilson, Douglas C., Associate Professor, Political Science. 1989-2009

B.A. or B.S in Political Science

Program Admissions Requirements

Code	Title	Credits
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Completion of a minimum of 24 credit hours with at least a 2.25 GPA.

Satisfactory completion of General Education Objectives 1 (English Composition), 2 (Principles of Speech), and 3 (Mathematics).

Completion of the following courses, (or their equivalents) with at least a C grade in each.

POLS 1101	American National Government	3
POLS 2202	Introduction to Politics Critical Thinking and Analysis	3

A signed agreement between the student and a member of the faculty agreeing to academic advising.

Total Credits		6
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General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6 - POLS 1101		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - POLS 2202		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
POLS 1101	American National Government (Partially Fulfills Objective 6)	3

Minor in Political Science

Code	Title	Credits
POLS 1101	American National Government	3
POLS 2202	Introduction to Politics Critical Thinking and Analysis	3
Choose 6 credits from the following core curriculum:		6
POLS 2221	Introduction to International Relations	
POLS 3313	Introduction to Political Philosophy	
POLS 3331	Comparative Politics Framework for Analysis	
POLS 4401	Political Parties and Groups	

POLS 2202	Introduction to Politics Critical Thinking and Analysis (Fulfills Objective 7)	3
POLS 2221	Introduction to International Relations	3
POLS 3313	Introduction to Political Philosophy	3
POLS 3331	Comparative Politics Framework for Analysis	3
POLS 4401 or POLS 4427	Political Parties and Groups Voting and Public Opinion	3
POLS 4403 or POLS 4404	The Presidency The Legislative Process	3
POLS 4442 or POLS 4443	Constitutional Law Civil Rights and Liberties	3
POLS 4460	Senior Seminar	3
Choose 12 credits of program electives from any of the courses in the political science curriculum (excluding POLS 4459).		12

Students who desire to complete a pre-law emphasis should consult with a pre-law advisor in the Department of Political Science.

Total Credits		39
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Degree Totals

Code	Title	Credits
	Program Admission Requirements (w/o General Education)	0
	General Education	37
	Major Requirements (w/o General Education)	33
	Upper Division Free Electives	18
	Free Electives	32
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degreerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

POLS 4427	Voting and Public Opinion	
POLS 4403	The Presidency	
POLS 4404	The Legislative Process	
POLS 4442	Constitutional Law	
POLS 4443	Civil Rights and Liberties	
Choose 6 credits of Political Science electives (excluding POLS 4459).		6
Total Credits		18

Psychology

Programs

Program Description	Type	Degree
Psychology, B.A./B.S. (p. 165)	Degree	B.A./B.S.
Psychology, Minor (p. 165)	Minor	

Psychology is defined as the science of behavior and conscious experience. Its domain ranges from the natural to the social sciences and includes such diverse topics as brain function, sensation and perception, learning and cognition, development, personality, and social behavior.

Program Objectives:

Undergraduates in psychology will display competence in the following areas:

1. **Basic Knowledge of the Major and Careers in Psychology:** knowledge of departmental goals and degree requirements for psychology majors and about possible careers in and/or related to psychology.
2. **Psychological Knowledge:** integration of knowledge and theories across topics within the domains of psychology.
3. **Skills in Psychological Science and Critical Thinking:** competence in the conceptual and technical aspects related to psychological scientific inquiry (including information technology, computer applications, scientific methodology and analysis). Ability to think critically about psychological knowledge and scientific methodology.
4. **Effective Communication:** in both oral and written form, about issues within the field of psychology.
5. **Appreciation for Individual Differences, Cultural Context, and Multiculturalism:** knowledge pertaining to individual and cultural differences and their importance in community and public policy decisions,

knowledge about how individuals and groups are influenced by the cultural context(s) in which they live.

Beyond the university's General Education Objectives (p. 57), psychology students learn critical thinking and problem-solving skills by developing competence in the methods of scientific research, psychometric principles, and data analysis. They integrate and apply the theories and knowledge base from the various domains of psychology and develop a well-rounded view of psychology and its importance in understanding behavior. Psychology promotes an appreciation for individual and cultural differences, as well as ethical principles in decision-making. The study of psychology increases understanding of self and others and enables individuals to make informed judgments that strengthen community and public policy.

The major assists students in developing their skills in library research, scientific writing, public presentations, and computer applications. Psychology students are encouraged to participate in research projects and community practicums. They also become aware of the various career options related to the major. By providing a broad-based education and the aforementioned skills, the major prepares students for entry-level positions in business, government, and a wide range of human service positions. The major also prepares students for graduate education and careers in psychology as well as areas such as law and public service, medicine and health-related professions, business programs emphasizing organizational development and human resources, and seminary.

Admission

Please contact the department chair to be admitted as a major or minor. Email Dr. Michele Brumley at brummich@isu.edu.

Psychology Faculty (p. 163)

Psychology Courses (p. 639)

Psychology Faculty

Chair

Brumley, Michele R. * Associate Professor, Psychology. B.A. 1999, DePaul University; Ph.D. 2005, University of Iowa. (2007)

Professors

Lawyer, Steven R. * Professor and Director of Clinical Training, Psychology. B.A. 1995, Western Michigan University; M.S. 1999, Ph.D. 2002, Auburn University. (2004)

Letzring, Tera * Professor and Director of Experimental Training, Psychology. B.A. 1999, University of Puget Sound; M.A. 2002, Ph.D. 2005, University of California, Riverside. (2005)

Lynch, Shannon M. * Professor, Psychology. B.A. 1992, Tufts University; M.A. 1996, Ph.D. 1999, University of Michigan. (2004)

Rasmussen, Erin B. * Professor, Psychology. B.A. 1994, University of Utah; M.S. 1999, Ph.D. 2001, Auburn University. (2004)

Turley-Ames, Kandi Jo. * Founding Dean, College of Arts and Letters; Professor, Psychology. B.S. 1990, M.S. 1993, Idaho State University; Ph.D. 1996, Washington State University. (1997)

Wong, Maria M. * Professor, Psychology. B.S.S. 1983, Chinese University of Hong Kong; M.A. 1985, University of North Carolina-Chapel Hill, Ph.D. 1993, University of Chicago. (2004)

Associate Professors

Swift, Joshua. * Associate Professor, Psychology. B.S. 2005, Brigham Young University; M.S. 2007, Ph.D. 2010, Oklahoma State University. (2015)

Xu, Xiaomeng. * Associate Professor, Psychology. B.A. 2005 New York University; M.A. 2007, Ph.D. 2011, Stony Brook University. (2012)

Assistant Professors

Aubuchon-Endsley, Nicki. * Assistant Professor and Clinic Director, Psychology. B.S. 2006, University of Denver; M.S. 2007, Ph.D. 2012, Oklahoma State University. (2014)

Fulton, Erika K. * Assistant Professor, Psychology. B.A. 1998, Haverford College; M.A. 2010, California State University, Long Beach; Ph.D. 2015, Georgia Institute of Technology. (2016)

McCarrey, Anna * Assistant Professor, Psychology. M.A. 2007, University of Aberdeen, UK; Ph.D. 2012, University of New South Wales, Australia. (2016)

Peer, Sam * Assistant Professor, Psychology. B.A. 2011, Wilmington University; M.A. 2016, Central Michigan University; Ph.D. 2018, Central Michigan University. (2018)

Rieske, Robert * Assistant Professor, Psychology. B.S. 2008, Utah Valley University; M.A. 2012, Ph.D. 2015, Louisiana State University. (2015)

Visiting Assistant Professors

Miyake, Tina M. * Visiting Assistant Professor, Psychology. B.S. 1999, M.S. 2001, Idaho State University; Ph.D. 2007, University of North Carolina at Greensboro. (2012)

McDonald, Jennifer. * Visiting Assistant Professor, Psychology. B.A. 2011, California State University Channel Islands, M.S. 2014, Ph.D. 2018, Idaho State University. (2018)

Adjunct Faculty

Anderson, Tessa. * Adjunct Faculty, Psychology. B.A. 2006, M.S. 2010, Idaho State University.

Hendrickson, Kelsie. * Adjunct Faculty, Psychology. B.S. 2009, M.S. 2012, Ph.D. 2015, Idaho State University. Licensed Psychologist.

Landers, John. * Adjunct Faculty, Psychology. Ph.D. 2002, Idaho State University. Licensed Psychologist.

Pongratz, Richard. * Director, Counseling & Testing Center; Adjunct Faculty, Psychology. Ph.D., LPC-S, Licensed Psychologist.

Westerhaus, Kendra. * Adjunct Faculty, Psychology. B.A. 2004, Ph.D. 2012, Idaho State University. Licensed Psychologist.

Wood Roberts, Barbara. * Adjunct Faculty, Psychology. B.A. 1987, M.S. 2013, Ph.D. 2018, Idaho State University.

Emeriti

Enloe, Linda J. * Associate Professor, Psychology. 1974-2007

Hatzenbuehler, Linda C. * Executive Dean and Associate Vice President, Division of Health Sciences. 1976-2016

Joe, Victor C. * Department Chair and Professor, Psychology. 1969-2003

Matthews, Leroy J. * Professor, Psychology. 1968-2000

Roberts, Mark W. * Professor, Psychology. 1977-2015

B.A. or B.S in Psychology

Program Admissions Requirements

There are no program admission requirements for the B.A. or B.S. in Psychology.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1153		3
Objective 4		6
Objective 5		7
Objective 6 - PSYC 1101		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
MATH 1153	Statistical Reasoning	3
PSYC 1101	Introduction to Psychology	3
PSYC 2201	Careers in Psychology	1
PSYC 2227	Basic Statistics	3
PSYC 3303	Psychology Research Methods	4
Core Areas		
Category 1: Select two of the following four courses:		6
PSYC 2225	Child Development	
PSYC 3301	Abnormal Psychology	

Minor in Psychology

Code	Title	Credits
PSYC 1101	Introduction to Psychology	3
PSYC 2227	Basic Statistics	3
PSYC 3303	Psychology Research Methods	4
Category 1: Select one of the following four courses:		3
PSYC 2225	Child Development	
PSYC 3301	Abnormal Psychology	
PSYC 3341	Social Psychology	
PSYC 4401	Theories of Personality	
Category 2: Select one of the following four courses:		3
PSYC 4431	Behavioral Neuroscience I	
PSYC 4432	Behavioral Neuroscience II	
PSYC 4445	Learning and Behavior	
PSYC 4472	History of Psychology	

PSYC 3341	Social Psychology	
PSYC 4401	Theories of Personality	
Category 2: Select two of the following four courses:		6
PSYC 4431	Behavioral Neuroscience I	
PSYC 4445	Learning and Behavior	
PSYC 4446	Cognitive Process	
PSYC 4472	History of Psychology	
Choose fifteen (15) program elective credits, at least twelve (12) of which must be upper-division. No more than nine (9) credits can come from PSYC 4483, Special Problems. ¹		15
Total Credits		41

¹ Students planning to apply to graduate school are encouraged to enroll in PSYC 4491, Senior Seminar, which offers opportunities for design and conduct of experiments, as well as additional training in writing. These students are also encouraged to take more classes from the core areas that will be counted as electives and will prepare them for graduate school.

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (w/o General Education)	35
	Upper Division Free Electives	14
	Free Electives	34
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Choose 6 additional elective credits in psychology.	6
Total Credits	22

Sociology, Social Work, and Criminology

Programs

Program Description	Type	Degree
Sociology, B.A. (p. 168)	Degree	B.A.
Sociology, Criminology Concentration, B.A. (p. 168)	Degree	B.A.
Social Work, B.A. (p. 169)	Degree	B.A.
Criminology, A.A. (p. 170)	Degree	A.A.
Sociology, Minor (p. 171)	Minor	
Gender and Sexuality Studies, Minor (p. 171)	Minor	

Mission

The four programs in the Department are interconnected. The Department contributes to the mission of the College of Arts and Letters by encouraging collaboration with other departments and programs within the College. The Department concentrates on research, theory, and service in regard to the community. The community plays a pivotal role in the life of individuals and it serves as a platform from which to study health and illness, diversity and social hierarchies, and criminal justice. The focus on community issues enables us to showcase the usefulness of sociology at the graduate and undergraduate levels; to create a niche for social work, particularly in the areas of child welfare, gerontology, and sexual diversity; and to find a pivotal role for criminal justice by emphasizing rehabilitation and reintegration of offenders into the community. The agenda of the DHHS Healthy People 2020 serves as concrete guideline for conducting qualitative and quantitative research, theory building, and the generation of external funding.

The Department of Sociology, Social Work and Criminology offers courses leading to the Associate of Arts degree in criminology, the Bachelor of Arts degree in sociology or social work, the Bachelor of Arts degree in sociology with a concentration in criminology, the Master in Social Work degree, and the Master of Arts in Sociology. For a full description of the graduate degrees, refer to the Graduate Catalog (<http://coursecat.isu.edu/graduate>). The department also houses the interdisciplinary Minor in Gender and Sexuality Studies.

Bachelor of Arts in Sociology

Sociology deals with social institutions, activities, and patterns of behavior of diverse groups. The challenge for sociologists is to sort out trends and to find ways to resolve the conflicts between groups of people. The sociology major provides students with background in the basic theoretical, research, and substantive areas of the discipline. The field of sociology leads to an understanding of the social forces impinging upon one's life and can lead to careers in many diverse settings.

Bachelor of Arts in Social Work

The Social Work Program is accredited by the Council on Social Work Education at the Baccalaureate level. As such it provides students with a generalist framework for beginning professional social work practice. Social workers help individuals, families, groups, and communities meet basic human needs and enhance the quality of life.

Minor in Gender and Sexuality Studies

The program in Gender and Sexuality Studies promotes an interdisciplinary approach to learning that emphasizes gender and sexuality as essential components in an understanding of our past, present, and future. Grounded in

contemporary scholarship, Gender and Sexuality Studies provides students with innovative perspectives from which to analyze and assess familiar subjects. Critical and analytical skills are developed and honed as students identify and contextualize profound connections between gender, sexuality, one's assigned roles and statuses, and one's access to social, economic, and political power.

Gender and Sexuality Studies supports Idaho State University's mission to create an effective and efficient learning environment that serves students of various ages, abilities, needs, and backgrounds. It enhances intellectual growth and complements the degree major by broadening academic knowledge bases and by developing a wide range of skills applicable in a variety of post-graduation settings.

The undergraduate interdisciplinary minor in Gender and Sexuality Studies consists of 18 credits of courses in gender and sexuality topics offered by various departments and approved by the director of Gender and Sexuality Studies.

The Gender and Sexuality Studies office is located in the Department of Sociology, Social Work and Criminal Justice, Liberal Arts Room LA 307 (208-282-2170).

Sociology, Social Work, and Criminology Faculty (p. 167)

Sociology Courses (p. 647)

Social Work Courses (p. 646)

Sociology, Social Work, and Criminology Faculty

Chair and Associate Professor

Hearn, Gesine K.*, Department Chair and Associate Professor, Sociology, Social Work and Criminal Justice. R.N. 1986, M.A. 1993, Ph.D. 2006, University of Erlangen-Nuernberg, Germany. (2001)

Professor

Hoskin, Anthony, Associate Professor. Program Director, Criminology. Ph.D., 1999, State University of New York at Albany; B.S., 1993, University of Utah (2015)

Associate Professors

Kim, Jeehoon, Associate Professor, Social Work. B.A. 1995, Seoul National University; M.He. 1997, Seoul National University; M.S.W. 2003, University at Albany, NY; Ph.D. 2011, University at Albany, NY. (2012)

Running, Katrina, Sociology Graduate Director and Associate Professor, Sociology. B.A. 2001, Colorado Sate University; M.A. 2007, University of Arizona, M.A. 2009, University of Arizona, Ph.D. 2013, University of Arizona. (2013)

Thomas, Jeremy, Associate Professor, Sociology. Director, Gender and Sexuality Studies. B.A. 1997, Asbury College; M.Div. 2002, Asbury Theological Seminary; M.S. 2007, Ph.D. 2012, Purdue University. (2012)

Williams, D.J.* Associate Professor, Social Work. B.S. 1992, Weber State University; M.S. 1998, University of Utah; M.S.W. 2000, University of Utah; Ph.D. 2004, University of Alberta, Canada. (2006)

Assistant Professors

Burnham, Morey, Assistant Professor, Sociology. B.A., 2003, University of Connecticut; M.S., 2008, Antioch University; Ph.D., 2014 Utah State University. (2016)

Caputo-Levine, Deirdre, Assistant Professor, Sociology. B.S. 1999, State University of New York at Stony Brook; M.A. 2008, State University of New York at Stony Brook; Ph.D. 2015, State University of New York at Stony Brook. (2016)

Giesler, Fredi (Edna), Assistant Professor, Social Work; Director, MSW Program. B.A. 1981, Pacific Lutheran University; MSW 1991, University of Washington; Ph.D. 2002, University of Washington. (2018)

Hageman, Sally, Assistant Professor, Social Work. B.A., 2002, University of California, Davis.; MSW 2007, University of California Los Angeles; Ph.D. 2019, University of Maryland Baltimore. (2019)

Lee, Justin, Assistant Professor, Social Work. B.S. 2005, Brigham Young University; M.S.W. 2007, Eastern Washington University; Ph.D. 2012, Virginia Commonwealth University (2016)

Maguire, Jennifer, Assistant Professor, Social Work; Director, BSW program. B.A. 2001, MSW 2004, California State University Chico; Ph.D. 2013, Oregon State University. (2019)

Emeriti

Aho, James A.* Professor, Sociology, Social Work and Criminal Justice. 1969-2010

Hunter, Ann Sutton,* Professor, Sociology, Social Work and Criminal Justice. 1991-2013

Pierson, Donald S.* Professor, Sociology, Social Work and Criminal Justice. 1985-2011

B.A. in Sociology

Program Admissions Requirements

There are no program admission requirements for the B.A. in Sociology

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6 - SOC 1101		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
SOC 1101	Introduction to Sociology	3
SOC 3301	Classical Social Theory	3

SOC/SOWK 3308	Sociological Methods and Social Work Research	3
SOC 3309	Social Statistics	3
SOC 4403	Contemporary Social Theory	3
SOC 4462	Power Class and Prestige	3
Electives -18 credit hours from any of the remaining courses in the Sociology curriculum excluding SOC 4482. Fifteen (15) of the elective credit hours must be upper division.		18
Sociology majors must attain a grade of "C-" or better in all required and elective courses.		
Total Credits		36

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
Major Requirements (w/o General Education)		33
Upper Division Free Electives		6
Free Electives		44
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

B.A. Sociology with Criminology Concentration

Program Admissions Requirements

There are no program admission requirements for the B.A. in Sociology Criminology Concentration

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		7
Objective 5		7
Objective 6 - SOC 1101		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		38

Major Requirements

Code	Title	Credits
SOC 1101	Introduction to Sociology	3
SOC 3301	Classical Social Theory	3
SOC/SOWK 3308	Sociological Methods and Social Work Research	3
SOC 3309	Social Statistics	3
SOC 4403	Contemporary Social Theory	3
SOC 4462	Power Class and Prestige	3
Required Courses for the Criminology Concentration		
SOC 2231	Juvenile Delinquency	3
SOC 2295	Criminal Justice Internship	4
SOC 3310	Introduction to Criminal Justice	3
SOC 4431	Criminology	3
Complete 9 credits from the following:		9
SOC 3321	Sociology of the Family	
SOC 3366	The Community	
SOC 4436	Elite Deviance and Crime	
SOC 4438	Sexual Crimes	
SOC 4492	Topics in Criminal Justice ¹	
Total Credits		40

¹ This course may be repeated with different content.

Recommended Electives

Code	Title	Credits
Recommended electives that will satisfy or partially satisfy General Education Requirements		
SOC 1102	Social Problems (partially satisfies General Education Objective 6)	3
SOC 2248	Critical Analysis of Social Diversity (satisfies General Education Objective 7)	3
SPAN 1101	Elementary Spanish I (partially satisfies General Education Objective 4)	4
SPAN 1102	Elementary Spanish II (partially satisfies General Education Objective 4)	4
Recommended additional electives		
POLS 2248	Politics and the Administration of Justice	3
POLS 2249	Introduction to Criminal Law	3

B.A. Social Work

Program Admissions Requirements

Code	Title	Credits
Completion of a minimum of 58 credit hours with a minimum cumulative GPA of 2.75 for the semester at the time of application.		
Completion of or current enrollment in the following courses:		
BIOL 1100	Concepts of Biology (Partially Fulfills Objective 5)	4
BIOL 1100L	Concepts of Biology Lab (Partially Fulfills Objective 5)	0
ENGL 1102	Writing and Rhetoric II (Partially Fulfills Objective 1)	3
MATH 1153	Statistical Reasoning (Fulfills Objective 3)	3
PSYC 1101	Introduction to Psychology (Partially Fulfills Objective 6)	3
SOC 1101	Introduction to Sociology (Partially Fulfills Objective 6)	3
SOC 2248	Critical Analysis of Social Diversity (Fulfills Objective 7)	3
SOWK 2271	Introduction to Social Work	3
SOWK 2272	Human Development and Diversity	3

All the required courses for admission have to be passed with a minimum grade of "C".

Completion of the Application for admission to the Social Work Major including a \$30 application fee, a three to five-page typed statement explaining why you would like to be a social worker and why you might be a good fit for the Social Work Program at Idaho State University, and a copy of your DegreeWorks transcript. See application information and further details, at <http://www.isu.edu/sociology/socialwork/index.shtml>.

POLS 4443	Civil Rights and Liberties	3
PSYC 2200	Child Abuse	3
PSYC 3301	Abnormal Psychology	3

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
Major Requirements (w/o General Education)		37
Upper Division Free Electives		6
Free Electives		40
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Students must have a background check performed. Please go to the program website for specific requirements. The criminal history check must be "in progress" or completed before application is submitted.

Total Credits	25
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General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1 - ENGL 1102		6
Objective 2		3
Objective 3 - MATH 1153		3
Objective 4		6
Objective 5 - BIOL 1100/BIOL 1100L		7
Objective 6 - SOC 1101, PSYC 1101		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - SOC 2248		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
PSYC 3301	Abnormal Psychology	3
SOC/SOWK 3308	Sociological Methods and Social Work Research	3
SOC 3309	Social Statistics	3
SOWK 3372	Practice Interventions with Individuals and Families	3
SOWK 3373	Practice Interventions with Groups	3

SOWK 3375	Application of Contemporary Social Work Theory	3
SOWK 4471	Social Justice, Advocacy, and Policy Practice	3
SOWK 4476	Social Work Field Practicum and Seminar I	6
SOWK 4477	Social Work Field Practicum and Seminar II	6
SOWK 4494	Practice Interventions with Organizations and Communities	3
SOWK 4498	Integration of Social Work Practice, Theory, and Research	3
Choose 6 credits of upper division SOC, SOWK or PSYC.		6
Total Credits		45

Degree Totals

Code	Title	Credits
Program Admission Requirements (w/o General Education)		6
General Education		37
Major Requirements (w/o General Education)		45
Upper Division Free Electives		0
Free Electives		32
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

A.A. in Criminology

Program Admissions Requirements

There are no program admission requirements for the A.A. in Criminology

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3		3
Objective 4		6
Objective 5		7
Objective 6 - SOC 1101		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - SOC 2248		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
SOC 1101	Introduction to Sociology (Partially Fulfills Objective 6)	3
SOC 2231	Juvenile Delinquency	3
SOC 2248	Critical Analysis of Social Diversity (Fulfills Objective 7)	3
SOC 2295	Criminal Justice Internship	4
SOC 3310	Introduction to Criminal Justice	3
SOC 4431	Criminology	3
Complete 9 credits from the following:		9
POLS 2249	Introduction to Criminal Law	
PSYC 2205	Human Sexuality	
PSYC 2225 or PSYC 3301	Child Development Abnormal Psychology	
SOC 4436	Elite Deviance and Crime	

SOC 4438	Sexual Crimes	
SOC 4492	Topics in Criminal Justice ¹	
Total Credits		28

¹ This course may be repeated with different content.

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
Major Requirements (w/o General Education)		22
Upper Division Free Electives		0
Free Electives		1
Total Credits		60

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Minor in Sociology

Code	Title	Credits	Electives ¹	9
SOC 1101	Introduction to Sociology	3		
SOC 3301	Classical Social Theory	3		
SOC/SOWK 3308	Sociological Methods and Social Work Research	3		
SOC 4462	Power Class and Prestige	3		
			Total Credits	21

¹ With the approval of a Department of Sociology faculty member, the student shall select nine credit hours from any of the remaining courses in the Sociology curriculum excluding SOC 4482.

Minor in Gender and Sexuality Studies

Code	Title	Credits
SOC 2201	Introduction to Gender and Sexuality Studies	3
SOC 3321	Sociology of the Family	3
SOC 4412	Sexuality and the Body	3
SOC/SOWK 4438	Sexual Crimes	3
Electives - Complete 6 credits from the following:		6
HIST 2201	Women In U.S. History	
PSYC 2205	Human Sexuality	
CMP 4404	Gender and Communication	
ENGL 3328	Gender in Literature	
HIST 4439	Women in World History	
SOC 4462	Power Class and Prestige	
SOC 4482	Sociology Internship ¹	
SOC 4483	Independent Problems in Sociology ¹	

¹ Students may take up to 4 credits of SOC 4482 Sociology Internship and up to 4 credits of SOC 4483 Independent Problems in Sociology if they fulfill the requirements for these courses.

Students can select alternative elective courses with approval of the director of Gender and Sexuality Studies.

College of Business

College Overview

The Idaho State University College of Business offers a four-year undergraduate program of business administration and liberal arts subjects leading to the degree of Bachelor of Business Administration as well as a Bachelor of Arts and a Bachelor of Science. There are nine majors available—Accounting, Economics, Finance, General Business, Business Informatics, Healthcare Administration, Health Informatics, Management, and Marketing. The College of Business also offers minors in Business Administration, Economics, Informatics, and Marketing. In addition, the Master of Business Administration, Master of Accountancy, Master of Taxation, Master of Healthcare Administration, and Master of Science in Health Informatics degrees are offered through the Graduate School. The B.B.A., M.B.A., M.Acc., M.Tax. and accounting programs are nationally accredited by AACSB, the International Association for Management Education.

Role and Mission

The College of Business, an integral part of Idaho State University, shares the role and mission of the university as established by the State Board of Education. Idaho State University's business programs respond to current and emerging demands within the state and region and serve local and statewide constituencies, including students seeking traditional, nontraditional and continuing education. The College also serves public and private sector management education and economic development needs and engages in research consistent with its undergraduate and graduate programs and public service mission.

The primary mission of the College is to offer high quality professional business educational programs. Excellent undergraduate teaching and learning is a top priority. In addition, quality graduate programs are a vital part of the educational mission. All areas of study appropriately emphasize the local, state, national, and international business environments. The College of Business delivers its educational programs on day and night schedules and at off-campus sites within the Idaho State University primary service area.

The research mission complements the instructional and public service missions. Research focuses on advancing understanding of theory and practice within the business disciplines, developing ways to teach business disciplines more effectively, and defining issues affecting economic development in the region and state.

The service mission of the College uses the expertise of its faculty and staff to enhance economic development. Public service programs focus on continuing education needs of business professionals and applied research and assistance needed by Idaho organizations.

In addition to its primary teaching, research, and service missions, the College of Business supports other programs within the university by providing courses and faculty support.

Undergraduate Curriculum Learning Goals

All business majors should have a solid foundation in each of the discipline areas (accounting, economics, finance, informatics, management, and marketing), as well as be capable of solving open-ended business problems and effectively communicating and working as part of a team. Specifically, the College of Business students should be able to:

- Communicate effectively;
- Use quantitative and analytical techniques to solve business problems;

- Describe and propose solutions to ethical, global, and cultural issues that arise in business settings; and
- Apply key concepts to make business decisions.

The College of Business faculty and departments engage in ongoing assessment activities to evaluate student learning and outcomes. The goal of the College is to prepare students to succeed and compete after completing their education. Assessment occurs in classes as part of assignments, projects and exams. Assessment is designed to help faculty insure student learning. Feedback from assessment is used to help redesign classes and class activities.

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete a set of core courses, please see each degree for the specifics required for the degree.

Applied Educational Requirement

The College of Business offers major areas of study designed both to equip students for immediate entry into the professional world and to meet the challenges of our changing environment. In support of this objective, we include a 3 credit hour applied educational requirement for all majors so that our students have the opportunity to learn through applying the concepts studied in the classroom. To allow student flexibility, we have designated the following courses as satisfying the applied educational requirement:

- Any Department 3393 Internship 3 credits
- Any Department 4493 Advanced Internship 3 credits
- ACCT 4440 Accounting Practicum 3 credits
- FIN 4451 Student Managed Investment Fund I 3 credits
- FIN 4452 Student Managed Investment Fund II 3 credits
- HCA 4489 Healthcare Information Systems Practicum 3 credits
- INFO 4488 Informatics Senior Project 3 credits
- MGT 4411/MKTG 4411 Small Business and Entrepreneurship Practicum 3 credits

Laptop Requirement

Undergraduate students in the College of Business are required to have a laptop computer that they can bring to class. We recommend that you purchase a computer your freshman year as it is required for MGT 2216 and all other 3000-level business courses. We recommend that the computer be capable of running the Windows version of MS Office.

Idaho Falls Programs

The Idaho State University College of Business offers the Bachelor of Business Administration (B.B.A.) in General Business, the Master of Accountancy (M.Acc.) and the Master of Business Administration (M.B.A.) degrees in Idaho Falls. Students wishing to complete B.B.A. degrees with other majors must plan to complete major requirements (beyond General Education and College of Business core requirements) on the Pocatello campus.

College Leadership (p. 173)

College of Business Leadership

Dean

Tokle, Joanne,* Acting Dean and Professor, College of Business. B.S. 1981, University of Wisconsin; M.S. 1983, University of Minnesota; Ph.D. 1988, Iowa State University. (1988)

Associate Dean

Houghton, Robert F.,* Associate Dean and Assistant Professor, College of Business. A.A. 2001, Santa Rosa Junior College; B.M. 2006, Utah State University; M.S. 2008, Utah State University; Ph.D. 2013, Utah State University.

Assistant Dean and Director of Professional Development

Ney, John, Assistant Dean, Director of Professional Development, and Assistant Clinical Professor, College of Business. B.S. 1990, University of Idaho; M.A. 1991, Gonzaga University. (2013)

Director of Undergraduate Studies

Tara Ridgeway-Smith

Director of Graduate Studies

Kristine McCarty

College of Business Programs

Program Description	Type	Degree
Accounting, B.B.A. (p. 176)	Degree	B.B.A.
Business Informatics, B.B.A. (p. 195)	Degree	B.B.A.
Economics, B.B.A. (p. 180)	Degree	B.B.A.
Finance, B.B.A. (p. 184)	Degree	B.B.A.
General Business, B.B.A. (p. 188)	Degree	B.B.A.
Health Informatics, B.B.A. (p. 196)	Degree	B.B.A.
Management, B.B.A. (p. 201)	Degree	B.B.A.
Marketing, B.B.A. (p. 207)	Degree	B.B.A.
Economics, B.S. (p. 182)	Degree	B.S.
Healthcare Administration, B.S. (p. 193)	Degree	B.S.
Business, A.S. (p. 190)	Degree	A.S.
Informatics, Academic Certificate (p. 199)	Certificate	
Accounting, B.B.A. - Operations Management Emphasis (p. 177)	Degree	B.B.A.
Business Informatics, B.B.A. - Operations Management Emphasis (p. 196)	Degree	B.B.A.
Economics, B.B.A. - Operations Management Emphasis (p. 181)	Degree	B.B.A.
Finance, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 185)	Degree	B.B.A.
Finance, B.B.A. - Operations Management Emphasis (p. 186)	Degree	B.B.A.
General Business, B.B.A. - Operations Management Emphasis (p. 189)	Degree	B.B.A.
Health Informatics, B.B.A. - Operations Management Emphasis (p. 197)	Degree	B.B.A.
Management, B.B.A. - Human Resources Management Emphasis (p. 203)	Degree	B.B.A.
Management, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 202)	Degree	B.B.A.
Management, B.B.A. - Operations Management Emphasis (p. 204)	Degree	B.B.A.
Marketing, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 208)	Degree	B.B.A.
Marketing, B.B.A. - Operations Management Emphasis (p. 209)	Degree	B.B.A.
Native American Business Administration, Emphasis (p. 191)	Emphasis	
Business, Minor (p. 191)	Minor	
Business Administration, Minor (p. 191)	Minor	
Economics, Minor (p. 182)	Minor	
Informatics, Minor (p. 198)	Minor	
Marketing, Minor (p. 210)	Minor	

Accounting

Programs in Accounting

Program Description	Type	Degree
Accounting, B.B.A. (p. 176)	Degree	B.B.A.
Accounting, B.B.A. - Operations Management Emphasis (p. 177)	Degree	B.B.A.

Undergraduate Accounting Program Learning Goals

The goal of our undergraduate program is to prepare students for entry into staff accounting positions in companies, government or not-for-profit organizations. Therefore, we emphasize a broad business core enhanced by rigorous accounting major courses that result in strong general accounting fundamentals. Moreover, we include an experiential component in our program so that our students have the opportunity to learn through applying the concepts studied in the classroom.

The learning goals of our BBA accounting program relate accounting content to both business and personal skill areas. Our content area goals are to have our graduates:

1. Understand financial accounting concepts at the intermediate accounting level;
2. Correctly apply procedures used in the taxation of entities;
3. Understand and apply managerial and cost accounting concepts; and
4. Understand the context and processes of auditing and assurance services.

Our skill area goals are to have our graduates demonstrate effective business writing, critical thinking and presentation skills, all skills deemed critical to success for business professionals.

Career Considerations

Following a national trend, Idaho law requires that a candidate for Certified Public Accountant (CPA) must have a college degree and at least 150 credit hours. While many accounting positions can be filled by individuals with a bachelor's degree without a CPA certificate, graduates intending to progress in a professional career in either managerial or public accounting will benefit greatly from the additional breadth and depth offered by a graduate degree. The Idaho State University accounting program meets Idaho's legal requirements and provides the additional knowledge and skills demanded by a rapidly changing business environment with a B.B.A. in Accounting, an M.B.A. with Emphasis in Accounting, a Master of Accountancy (MAcc) and a Master of Taxation (MTax).

The undergraduate degree program prepares accountants with broad knowledge in business and accounting suitable for entry level positions in several career paths available to accountants. The M.B.A. Accounting Emphasis program enhances the knowledge and skills useful for rapid advancement in managerial accounting roles while the MAcc and MTax programs provide the knowledge and skills best suited to a successful career in public accounting. Students planning to pass the CPA and Certified Management Accountant (CMA) examinations should continue beyond the B.B.A. degree into the M.B.A. with Emphasis in Accounting, the Master of Accountancy (MAcc) Program or the Master of Taxation (MTax) Program.

Faculty (p. 176)

Accounting Courses (p. 498)

Accounting Faculty

Chair and Associate Professor

Rodriguez, Ramon (Ray), Associate Professor, Accounting. B.B.A. 1999, M.B.A. 2001, University of Texas, San Antonio; Ph.D. 2009, University of Texas El Paso. (2016)

Professor

Picard, Robert R., Professor, Accounting. B.S. 1976, Northern Michigan University; M.B.A. 1984, University of St. Thomas; Ph.D. 1994, University of Kentucky. (1994)

Assistant Professors

Burger, Marcus, Assistant Professor, Accounting. B.S. 2004, Weber State University; Ph.D. 2012, University of Utah. (2016)

Chen, Jason, Assistant Professor, Accounting. B.S. 1994, Brigham Young University, Hawaii; M.S. 2002, University of Nevada, Las Vegas; Ph.D. 2012, University of Central Florida. (2016)

Wood, Justin, Assistant Professor, Accounting. B.S. 2004, M.B.A. 2010, Brigham Young University; Ph.D. 2016, University of Iowa. (2016)

Clinical Associate Professor

Konicek, Dawn L., Clinical Associate Professor, Accounting. B.B.A. 1990, M.B.A. 2008, University of Wisconsin, Whitewater. (2012)

B.B.A. Accounting

Program Admissions Requirements

There are no program admission requirements for the BBA in Accounting.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Clinical Assistant Professors

Bagley, Dave, Clinical Assistant Professor, Accounting. B.A. 1999, Brigham Young University; J.D. 2005, University of Idaho; LL.M. 2006, University of Florida. (2015)

Leffler, Jerry, Clinical Assistant Professor, Accounting. B.B.A. 1999, Idaho State University; M.B.A. 2000, Idaho State University. (2016)

O'Brien-Rose, Michele, Clinical Assistant Professor, Accounting. B.A., University of Colorado; M.B.A., University of Colorado. (2013)

Emeriti

Boes, Richard F., Professor, Accounting. 1977-2011

Plewa, Jr., Franklin J., Professor, Accounting. 1984-2013

Pumphrey, Lela "Kitty" D., Professor, Accounting. 1988-2006

Reis, Priscilla R., Associate Professor, Accounting. 1994-2013

Smith, Jill M., Assistant Professor, Accounting. 1986-2009

Smith, Kenneth A., Professor, Accounting. 1970-2015

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3

MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
ACCT 3323	Intermediate Accounting I	3
ACCT 3324	Intermediate Accounting II	3
ACCT 3331	Principles of Taxation I	3
ACCT 3332	Principles of Taxation II	3
ACCT 3341	Managerial and Cost Accounting	3
ACCT 4425	Intermediate Accounting III	3
ACCT 4403	Accounting Information Systems	3
ACCT 4456	Auditing	3
One of the following: (fulfills College of Business Applied Educational Requirement)		
ACCT 4440	Accounting Practicum	3
ACCT 3393	Accounting Internship	3

B.B.A. Accounting with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the BBA in Accounting.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		
Objective 7 - INFO 1181 or CS 1181		3
Objective 8 - INFO 1101 or FIN 1115		3
Objective 9		3
Total Credits		37

ACCT 4493	Advanced Accounting Internship	
FIN 4451	Student Managed Investment Fund I	
FIN 4452	Student Managed Investment Fund II	
INFO 4488	Informatics Senior Project	
MGT/MKTG 4411	Small Business and Entrepreneurship Practicum	
One Additional 4000-level Accounting course		3
Total Credits		30

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
BBA Core (Required General Education credits removed.)		44
Major Requirements		30
Upper Division Free Electives		0
Free Electives		9
Total Credits		120

¹ **The following courses satisfy the applied educational requirement:**
ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307	Professional and Technical Writing	3
or ENGL 3308	Business Communications	3
Take one of the following:		3

INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement		
Total Credits		53

BBA Core (Required General Education credits removed.)	44
Major Requirements	36
Upper Division Free Electives	0
Free Electives	3
Total Credits	120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

Major Requirements

Code	Title	Credits
ACCT 3323	Intermediate Accounting I	3
ACCT 3324	Intermediate Accounting II	3
ACCT 3331	Principles of Taxation I	3
ACCT 3332	Principles of Taxation II	3
ACCT 3341	Managerial and Cost Accounting	3
ACCT 4425	Intermediate Accounting III	3
ACCT 4403	Accounting Information Systems	3
ACCT 4456	Auditing	3
One of the following: (fulfills College of Business Applied Educational Requirement)		3
ACCT 4440	Accounting Practicum	
ACCT 3393	Accounting Internship	
ACCT 4493	Advanced Accounting Internship	
FIN 4451	Student Managed Investment Fund I	
FIN 4452	Student Managed Investment Fund II	
INFO 4488	Informatics Senior Project	
MGT/MKTG 4411	Small Business and Entrepreneurship Practicum	
One Additional 4000-level Accounting course		3
Additional courses required for Operations Management Emphasis:		
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
Total Credits		36

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37

Economics

Programs in Economics

Program Description	Type	Degree
Economics, B.B.A. (p. 180)	Degree	B.B.A.
Economics, B.S. (p. 182)	Degree	B.S.
Economics, B.B.A. - Operations Management Emphasis (p. 181)	Degree	B.B.A.
Economics, Minor (p. 182)	Minor	

Program Goals

Students who earn an economics degree will develop skills and knowledge relevant to business, entrepreneurship and the public and non-profit sectors. Economic forces affect everyone and society. Understanding economics helps individuals contribute to a rapidly-changing global marketplace. Examples of topics in economics include foreign trade, the regulatory environment, sustainability and natural resources, monetary policy, banking, income distribution, labor markets and healthcare.

Career Considerations

An economics degree prepares students for a variety of possible careers or to further their study with an MBA, law degree, Ph.D. or other advanced graduate

Economics Faculty

Chair and Professor

Brookman, Jeffrey T., Department Chair and Professor, Finance and Economics. B.S. 1987, University of Utah; M.B.A. 1991, Ph.D. 2001, University of Oregon. (2007)

Professors

Hill, Cynthia D., Executive Director, Student Success Center; Professor, Economics. B.A. 1989, University of Montana; Ph.D. 1997, Washington State University. (1997)

Stegner, Tesa, Professor, Economics. B.S. 1983, Valparaiso University; Ph.D. 1989, Washington State University. (1992)

Tokle, Robert J., Professor, Economics. B.A. 1980, University of Wisconsin-Madison; Ph.D. 1986, Iowa State University. (1986)

Assistant Professor

Buder, Iris, Assistant Professor, Economics. B.A. 2007, B.S. 2008, M.S. 2009, Auburn University; Ph.D. 2015, University of Utah. (2015)

Geisler, Karl R., Assistant Professor, Economics. B.A. 2006, Western Washington University; Ph.D. 2013, University of Nevada, Reno. (2018)

Emeritus

Benson Jr., Charles Scott, Professor, Economics. 1986-2018

degree. Students are able to pursue careers in law, banking, financial analysis, real estate, litigation analysis, planning, pricing analysis, government at the local, state and federal levels, budget analysis or policy analysis and other jobs that require analytical ability. Economists study questions about allocating scarce resources, understanding the trade-offs businesses and government face when making decisions and how to consider the competing uses for the world's limited resources.

Learning Goals

The learning goals of our program are to develop skill and apply them to:

1. Interpret and apply economic data to make decisions and evaluate alternatives;
2. Identify and analyze economic issues; and
3. Demonstrate effective written and oral presentation skills and critical thinking.

Faculty (p. 179)

Economics Courses (p. 547)

B.B.A. Economics

Program Admissions Requirements

There are no program admission requirements for the BBA in Economics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3

MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
ECON 3301	Macroeconomic Theory	3
ECON 3302	Microeconomic Theory	3
ECON 4474	Capstone Economic Concepts, Study, and Issues	3
ECON 4485	Econometrics	3
3 additional credit hours of upper-division ECON electives ²		3
9 credit hours of additional upper-division College of Business courses ²		9
Total Credits		24

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
BBA Core (Required General Education credits removed)		44
Major Requirements		24
Upper Division Free Electives		0
Free Electives		15
Total Credits		120

¹ **The following courses satisfy the College of Business applied educational requirement:**

ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, any 3393 Internship course or and any 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**

Any upper division course in the BBA Core-
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

B.B.A. Economics with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the BBA in Economics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3

FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
ECON 3301	Macroeconomic Theory	3
ECON 3302	Microeconomic Theory	3
ECON 4474	Capstone Economic Concepts, Study, and Issues	3
ECON 4485	Econometrics	3
3 additional credit hours of upper-division ECON electives ²		3
Additional courses required for Operations Management Emphasis:		
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
Two electives to be selected from the following courses:		6
ACCT 3341	Managerial and Cost Accounting	
ACCT 4403	Accounting Information Systems	
INFO 3307	Systems Analysis and Design	
MKTG 4421	Services Marketing	
MKTG 4432	New Product Management	
Total Credits		27

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed)	44
	Major Requirements	27
	Upper Division Free Electives	0
	Free Electives	12
Total Credits		120

¹ **The following courses satisfy the College of Business applied educational requirement:** ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, any 3393 Internship course or and any 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**

Any upper division course in the BBA Core-
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

BS Economics

Program Admissions Requirements

There are no program admission requirements for the B.S. in Economics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216 or MATH 1153		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201 or ECON 2202 ¹		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Major Requirements

Code	Title	Credits
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
ECON 3301	Macroeconomic Theory	3
ECON 3302	Microeconomic Theory	3
ECON 4474	Capstone Economic Concepts, Study, and Issues	3
ECON 4485	Econometrics	3

Minor in Economics

Code	Title	Credits
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
ECON 3301	Macroeconomic Theory	3
ECON 3302	Microeconomic Theory	3
Plus 6 additional upper-division Economics credits. ¹		6
Total Credits		18

¹ All electives shall be selected by the student with prior approval from a Department of Economics faculty member.

One of the following:		3-4
MATH 1143	College Algebra	
MATH 1160	Survey of Calculus	
MATH 1170	Calculus I	
MGT 2216	Business Statistics	3
or MATH 1153	Statistical Reasoning	
Plus 12 credits of upper-division Economics courses.		12
Total Credits		36-37

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (w/o Gen Eds)	30-31
	Upper Division Free Electives	12
	Free Electives ²	40-41
Total Credits		120

¹ A minimum of two courses (6 credits) must be taken to satisfy General Education Objective 6, and the courses must be selected from **two different course prefixes**. If ECON 2201 is taken, the second course must be from a different subject (ANTH, EDUC, HIST, etc.). Please see the General Education (p. 57) for more information.

² Recommended electives for economics majors are political science, finance, mathematics, marketing, or other relevant courses depending upon the student's specific interests.

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

Finance

Programs in Finance

Program Description	Type	Degree
Finance, B.B.A. (p. 184)	Degree	B.B.A.
Finance, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 185)	Degree	B.B.A.
Finance, B.B.A. - Operations Management Emphasis (p. 186)	Degree	B.B.A.

Department Overview

Finance majors may earn a degree in Finance without emphasis or a degree in Finance with emphasis in Entrepreneurship/Small Business. Moreover, we

Finance Faculty

Chair and Professor

Brookman, Jeffrey T. * Department Chair and Professor, Finance and Economics. B.S. 1987, University of Utah; M.B.A. 1991, Ph.D. 2001, University of Oregon. (2007)

Professors

Byers, Steven S. * Professor, Finance. B.A. 1982, M.B.A. 1989, Indiana University; Ph.D. 1996, Texas A&M University. (1996)

Hackert, Ann M. * Professor, Finance. B.S. 1978, University of South Dakota; Ph.D. 1987, Iowa State University. (1984)

Khang, Kenneth. * Professor, Finance. B.S. 1983, University of Oregon; MBA 1987, University of California, Berkeley; Ph.D. 1998, University of Washington. (2004)

Emeriti

Wells, Gary R. * Professor, Finance. 1965-2009

include an applied educational component in our program so that our students have the opportunity to learn through applying the concepts studied in the classroom. College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement.

Finance majors are encouraged to include additional courses in Finance, Economics, and Accounting as part of the 24 hour credit total.

Faculty (p. 183)

Finance Courses (p. 569)

B.B.A. Finance

Program Admissions Requirements

There are no program admission requirements for the BBA in Finance.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3

FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
FIN 4405	Advanced Corporate Financial Management I	3
FIN 4478	Investments	3
6 additional credits of upper division Finance courses ²		6
6 additional credits of upper division College of Business courses ²		6
6 additional credits of upper division courses ²		6
Total Credits		24

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
BBA Core (Required General Education credits removed.)		44
Major Requirements		24
Upper Division Free Electives		0
Free Electives		15
Total Credits		120

¹ **The following courses satisfy the applied educational requirement:**
ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

B.B.A. Finance with Entrepreneurship/Small Business Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Finance.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
CMP 2201	Business and Professional Communication	3
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 3315	Corporate Financial Management	3

INFO 3301	Introduction to Informatics and Analytics	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
FIN 4405	Advanced Corporate Financial Management I	3
FIN 4478	Investments	3
6 additional credits of upper division Finance courses ²		6
MGT 4410	Entrepreneurship Opportunity Feasibility and Planning	3
MGT 4411	Small Business and Entrepreneurship Practicum	3
Two of the following:		6
ACCT 3341	Managerial and Cost Accounting	
ACCT 3360	Small Business Accounting	
MGT 4465	International Business	
MGT 4480	Labor and Employment Law	
MKTG 4405	Personal Selling and Sales Force Management	
MKTG 4421	Services Marketing	
MKTG 4426	Marketing Research	
MKTG 4432	New Product Management	
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
Total Credits		120

¹ **The following courses satisfy the applied educational requirement:**
 ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411,
 and any 3393 Internship course or 4493 Advanced Internship course offered
 from the College of Business.

² **ACCT 4490 will count as an upper division Finance course.**
**The following courses will not count as an upper division Finance
 course:**
 FIN 3303, FIN 3315, FIN 3393

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

B.B.A. Finance with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the BBA in Finance.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3

INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
FIN 4405	Advanced Corporate Financial Management I	3
FIN 4478	Investments	3
6 additional credits of upper division Finance courses ²		6
Additional courses required for Operations Management Emphasis:		
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
Two electives to be selected from the following courses:		6
ACCT 3341	Managerial and Cost Accounting	
ACCT 4403	Accounting Information Systems	
INFO 3307	Systems Analysis and Design	
MKTG 4421	Services Marketing	
MKTG 4432	New Product Management	
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
	Total Credits	120

¹ **The following courses satisfy the applied educational requirement:**
 ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411,
 and any 3393 Internship course or 4493 Advanced Internship course offered
 from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
 BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
 ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
 ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

General Business

Programs in General Business

Program Description	Type	Degree
Business, A.S. (p. 190)	Degree	A.S.
General Business, B.B.A. (p. 188)	Degree	B.B.A.
General Business, B.B.A. - Operations Management Emphasis (p. 189)	Degree	B.B.A.
Business Administration, Minor (p. 191)	Minor	
Business, Minor (p. 191)	Minor	
Native American Business Administration, Emphasis (p. 191)	Emphasis	

Overview

The General Business major is offered to broadly augment core curricula and is often chosen by students who may be entering a family-owned or small business where they may assume multiple responsibilities. The major provides additional breadth of knowledge in contemporary business subjects and also establishes a strong foundation for those who expect to receive specialized training from an employer. Moreover, we include an applied educational component in our program so that our students have the opportunity to learn through applying the concepts studied in the classroom. Students must receive a grade of C- (C-minus) or better in all eight courses to fulfill the required 24 credits of the General Business Major. College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement.

General Business Courses (p. 516)

B.B.A. General Business

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in General Business.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1

ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
18 credit hours of upper-division College of Business courses chosen from at least two business disciplines ²		18

6 additional credits of upper division courses ²	6
Total Credits	24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
	Total Credits	120

¹ **The following courses satisfy the applied educational requirement:**
ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. General Business with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in General Business.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
	Objective 1	6
	Objective 2	3
	Objective 3 - MGT 2216	3
	Objective 4	6
	Objective 5	7
	Objective 6 - ECON 2201	6
	Students must fulfill Objective 7 or Objective 8	3
	Objective 7 - INFO 1181 or CS 1181	
	Objective 8 - INFO 1101 or FIN 1115	
	Objective 9	3
	Total Credits	37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1

ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
	Take one of the following:	3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
	College of Business Applied Educational Requirement ¹	
	Total Credits	53

Major Requirements

Code	Title	Credits
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3

Two electives to be selected from the following courses:	6
ACCT 3341 Managerial and Cost Accounting	
ACCT 4403 Accounting Information Systems	
INFO 3307 Systems Analysis and Design	
MKTG 4421 Services Marketing	
MKTG 4432 New Product Management	
6 additional credits of upper division College of Business courses²	6
6 additional credits of upper division courses²	6
Total Credits	24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0

A.S. Business

Program Admissions Requirements

There are no program admission requirements for the A.S. in Business.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
	Objective 1	6
	Objective 2	3
	Objective 3 - MGT 2216	3
	Objective 4	6
	Objective 5	7
	Objective 6 - ECON 2201	6
	Students must fulfill Objective 7 or Objective 8	3
	Objective 7 - INFO 1181 or CS 1181	
	Objective 8 - INFO 1101 or FIN 1115	
	Objective 9	3
Total Credits		37

Major Requirements

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
	One of the following:	3
	INFO/CS 1181 Informatics and Programming I	
	INFO 1101 Digital Information Literacy	
	FIN 1115 Personal Finance	
MGT 2216	Business Statistics	3

Free Electives	15
Total Credits	120

¹ **The following courses satisfy the applied educational requirement:**
ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

MKTG 2225	Basic Marketing Management	3
	Six credits of any College of Business courses.	6
Total Credits		30

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (Required General Education credits removed.)	24
	Upper Division Free Electives	0
	Free Electives	0
Total Credits		61

Minor in Business

This minor is only available to students not earning a degree from the College of Business.

The minor in Business augments the undergraduate education of non-business students by providing exposure to courses in Accounting, Finance, Marketing, Management, and Informatics. The goal of the minor is to provide students the opportunity to learn basic business language, concepts, and tools that will assist them in pursuing careers in their major fields.

Students not receiving BBA degrees from the College of Business may satisfy the requirements for a minor in Business by completing the following courses (total 18 credits):

Code	Title	Credits
ACCT 3303	Accounting Concepts	3
BA 1110	The World of Business	3
FIN 3303	Financial Concepts	3
INFO 3303	Informatics Concepts	3
MGT 3312	Individual and Organizational Behavior	3
MKTG 2225	Basic Marketing Management	3
Total Credits		18

Minor in Business Administration

The minor in Business Administration is geared toward students who seek a significant exposure to business or who plan to pursue an M.B.A. after graduation. Students not receiving BBA degrees from the College of Business may satisfy the requirements for a minor in Business Administration by successfully completing the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
INFO 3301	Introduction to Informatics and Analytics	3
ECON 2201	Principles of Macroeconomics	3

ECON 2202	Principles of Microeconomics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics	3
MGT 2217	Advanced Business Statistics	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MKTG 2225	Basic Marketing Management	3
Total Credits		33

Native American Business Administration Emphasis

This emphasis may be added to any of the majors offered in the College of Business.

Code	Title	Credits
Requirements:		
1. Complete all degree requirements for a B.B.A. in a major within the College of Business		
2. Take the following two courses		
MGT 4420	Native American Organizational Systems	3
MGT 4422	Native American Enterprise	3
3. Plus 6 credits of program-approved electives.		

Healthcare Administration Program

Programs in Health Care Administration

Program Description	Type	Degree
Healthcare Administration, B.S. (p. 193)	Degree	B.S.

Department Overview

Our Mission

The Healthcare Administration Program (HCAP) provides quality education and lifelong learning opportunities to future and current healthcare leaders. HCAP supports Idaho State University's mission as the center for the education of health professionals in the State of Idaho. The HCAP serves to advance the knowledge and the ability of healthcare professionals to lead their organizations, to serve their communities and to improve the health status of their communities.

Learning Goals

The Healthcare Administration Program delivers state-of-the-art education to traditional and nontraditional students using a theoretical and programmatic approach. Emerging industry needs are addressed using innovative instructional methods to deliver valid competencies and educational outcomes based on industry and stakeholder needs.

Specifically, the HCAP:

- Prepares individuals for entry to mid-level management positions in group practice, ambulatory care, long-term care, hospitals, managed care organizations, and other health-related organizations;
- Develops administrative, technical, problem-solving, conceptual, and human relations knowledge and skills that provide the foundation for future healthcare administrators and leaders;

- Uses industry competency models and current evidence on teaching and learning to provide students the best quality education possible;
- Fosters practical educational experiences and promotes interaction among students, alumni, and mentors in area and regional health organizations; and
- Works with each student in the program to ensure proper placement and professional development in administrative internships and initial positions, assuring an appropriate match between the individual and the healthcare - organization.

Health care facilities constitute some of the most complex institutions in our society. These facilities and the scope of their services are becoming more responsive to the community they serve. The healthcare administrator is at the forefront of these activities and is in demand in a number of organizations, including hospitals, extended-care facilities, group practices, insurance companies, state and federal health agencies, educational programs and research institutions. The purpose of the undergraduate program in Healthcare Administration at Idaho State University is to prepare students for the wide range of activities needed for the administration of health care facilities and to provide courses for students majoring in other health-related programs. The program is designed to provide students with the basic requirements to pursue a graduate degree in the field. The curriculum leads to a Bachelor of Science degree in Healthcare Administration with a minor in Business Administration. Students may enroll in the program at the beginning of any semester and must meet requirements as provided elsewhere.

Faculty (p. 192)

Healthcare Administration Courses (p. 579)

Healthcare Administration Faculty

Associate Professors

Farnsworth, Tracy, Associate Professor. B.A. 1982, Brigham Young University; M.H.S.A., M.B.A., 1985, Arizona State University; Ed.D. 2013, Idaho State University. (2007)

Guo, Ruiling, Associate Professor, Healthcare Administration. B.A. 1994, Peking University; M.L.I.S. 2003, McGill University; M.P.H. 2011, Idaho State University; D.H.A. 2015, Central Michigan University. (2003)

Executive in Residence

Doug Crabtree, MPA

Visiting Professor

Joshua Thompson

Adjunct Faculty

John Abreu
James Lineberger
Ann Nevers
Dennis Tolman

B.S. Healthcare Administration

Program Admissions Requirements

There are no program admission requirements for the BS in Healthcare Administration.

HCA 4475	Health Law and Bioethics	3
HCA 4495	Administrative Internship	4
Total Credits		70

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Objective 7		3
Objective 8		
Objective 9		3
Total Credits		37

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (Required General Education credits removed.)	64
	Upper Division Free Electives	0
	Free Electives	19
Total Credits		120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

Major Requirements

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
FIN 3315	Corporate Financial Management	3
INFO 3301	Introduction to Informatics and Analytics	3
MGT 2216	Business Statistics	3
MGT 2217	Advanced Business Statistics	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MKTG 2225	Basic Marketing Management	3
HCA 1115	US Health System	3
HCA 2215	Healthcare Leadership	3
HCA/INFO 3330	Health Information Systems	3
HCA 3384	Human Resource Management in Healthcare Organizations	3
HCA 4410	Management of Healthcare Provider Organizations	3
HCA 4417	Managerial Epidemiology and Population Health	3
HCA 4440	Healthcare Economics and Policy	3
HCA 4453	Healthcare Finance	3
HCA 4460	Healthcare Quality and Performance Improvement	3
HCA/HE 4473	Healthcare Strategic Planning and Marketing	3

Informatics

Programs in Informatics

Program Description	Type	Degree
Business Informatics, B.B.A. (p. 195)	Degree	B.B.A.
Health Informatics, B.B.A. (p. 196)	Degree	B.B.A.
Business Informatics, B.B.A. - Operations Management Emphasis (p. 196)	Degree	B.B.A.
Health Informatics, B.B.A. - Operations Management Emphasis (p. 197)	Degree	B.B.A.
Informatics, Minor (p. 198)	Minor	
Informatics, Academic Certificate (p. 199)	Certificate	

Business Informatics

Business Informatics is an emerging interdisciplinary field of study that combines computer science and business administration into one field. Integrating computer technology into vital business operations can provide a business with a competitive advantage based on innovative and superior application of information technology.

The Business Informatics major prepares students for a wide variety of careers, including systems analysis, application software development, and database design.

Health Informatics

The Health Informatics degree is designed to enable graduates to enter careers in information systems usage in healthcare organizations. Information systems play an increasingly important role in the burgeoning healthcare field and the HI degree is intended to develop the skills necessary to manage information systems in a healthcare environment. The degree is delivered in cooperation with Idaho State University's Kasiska School of Health Professions. Combining courses in healthcare administration, general business, and informatics, the Health Informatics degree prepares students to work in hospitals, health clinics, and doctors' offices, as well as other health-related organizations.

Moreover, we include an applied educational component in our Business Informatics and Health Informatics programs so that our students have the opportunity to learn through applying the concepts studied in the classroom.

Faculty (p. 194)

Informatics Courses (p. 588)

Informatics Faculty

Chair and Professor

Parker, Kevin R.,* Department Chair and Professor, Informatics. B.A. 1982, University of Texas at Austin; M.S. 1991, Ph.D. 1995, Texas Tech University. (1999)

Professors

Ottaway, Thomas A.,* Professor, Informatics. B.S. 1990, Wichita State University; M.S. 1993, Ph.D. 1995, Texas Tech University. (2001)

Schou, Corey D.,* Associate Dean for Information Assurance and Professor, College of Business; Director, Informatics Research Institute. B.S. 1968, Rollins College; M.S. 1970, Ph.D. 1972, Florida State University. (1985)

Assistant Professors

Houghton, Robert, Associate Dean, College of Business; Assistant Professor, Informatics. B.M. 2006, M.S. 2008, Ph.D. 2013, Utah State University. (2014)

Clinical Assistant Professors

Holmes, Jonathan, Clinical Assistant Professor, Informatics. B.B.A. 2008, M.B.A. 2011, Idaho State University. (2015)

McGregor, Michael, Clinical Assistant Professor, Systems Administrator, Informatics and Computer Science. B.S. 2016, Idaho State University; M.S. 2018, University of Idaho. (2018)

B.B.A. Business Informatics

Program Admissions Requirements

There are no program admission requirements for the BBA in Business Informatics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201 or ECON 2202		6
Objective 7 - INFO 1181 or CS 1181		3
Objective 8		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics (partially satisfies General Education Objective 6)	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7)	3
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3

MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement		
Total Credits		53

Business Informatics Major Requirements

Code	Title	Credits
INFO 1150	Software and Systems Architecture	3
INFO/CS 1181	Informatics and Programming I (also fulfills requirement in Business Core)	3
INFO 1182	Informatics and Programming II	3
INFO 2220	Web Development:Client-Side Programming	3
INFO 3307	Systems Analysis and Design	3
INFO 3380	Networking and Virtualization	3
INFO 4407	Database Design and Implementation	3
INFO 4430	Web Application Development	3
INFO 4482	Systems Development and Implementation Methodologies	3
INFO 4493	Advanced Informatics Internship *	3
Total Credits		30

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	45
	Major Requirements (Required General Education credits removed.)	27
	Upper Division Free Electives	0
	Free Electives	11
Total Credits		120

* INFO 4493 fulfills the College of Business applied educational requirement.

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. Informatics with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the BBA in Business Informatics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201 or ECON 2202		6
Objective 7 - INFO 1181 or CS 1181		3
Objective 8		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics (partially satisfies General Education Objective 6)	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3

MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7)	3

College of Business Applied Educational Requirement	
Total Credits	53

Business Informatics Major Requirements

Code	Title	Credits
INFO 1150	Software and Systems Architecture	3
INFO/CS 1181	Informatics and Programming I (also fulfills requirement in Business Core)	3
INFO 1182	Informatics and Programming II	3
INFO 2220	Web Development:Client-Side Programming	3
INFO 3307	Systems Analysis and Design	3
INFO 3380	Networking and Virtualization	3
INFO 4407	Database Design and Implementation	3
INFO 4430	Web Application Development	3
INFO 4482	Systems Development and Implementation Methodologies	3
INFO 4493	Advanced Informatics Internship *	3
Additional courses required for Operations Management Emphasis:		
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
One electives to be selected from the following courses:		3
ACCT 3341	Managerial and Cost Accounting	
ACCT 4403	Accounting Information Systems	
MKTG 4421	Services Marketing	
MKTG 4432	New Product Management	
Total Credits		39

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements (Required General Education credits removed.)	36
	Upper Division Free Electives	0
	Free Electives	3
Total Credits		120

* INFO 4493 fulfills the College of Business applied educational requirement.

B.B.A. Health Informatics

Program Admissions Requirements

There are no program admission requirements for the BBA in Health Informatics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Objective 7 - INFO 1181 or CS 1181		3
Objective 8		3
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3

MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7)	3
College of Business Applied Educational Requirement		
Total Credits		53

Major Requirements

Code	Title	Credits
INFO 1150	Software and Systems Architecture	3
INFO/CS 1181	Informatics and Programming I	3
INFO 1182	Informatics and Programming II	3
INFO 3307	Systems Analysis and Design	3
INFO 3330	Health Informatics	3
INFO 3380	Networking and Virtualization	3
INFO 4407	Database Design and Implementation	3
INFO 4422	Health Information Governance	3
INFO 4424	Healthcare Workflow Process Analysis and Redesign	3
INFO 4426	Health Data Analytics	3
HCA 1115	US Health System	3
HCA 4465	Healthcare Operations and Quality	3
HCA 4489	Healthcare Information Systems Practicum	3
Total Credits		39

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	45
	Major Requirements	33
	Upper Division Free Electives	0
	Free Electives	5
Total Credits		120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. Health Informatics with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the BBA in Health Informatics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Objective 7 - INFO 1181 or CS 1181		3
Objective 8		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7)	3

Minor in Informatics

Students receiving degrees in all colleges may satisfy the requirements for an Informatics minor by completing the following courses. Students pursuing this minor should seek assignment of a minor advisor early in their program to complete a Program of Study Agreement.

College of Business Applied Educational Requirement	
Total Credits	53

Major Requirements

Code	Title	Credits
INFO 1150	Software and Systems Architecture	3
INFO/CS 1181	Informatics and Programming I	3
INFO 1182	Informatics and Programming II	3
INFO 3307	Systems Analysis and Design	3
INFO 3330	Health Informatics	3
INFO 3380	Networking and Virtualization	3
INFO 4407	Database Design and Implementation	3
INFO 4422	Health Information Governance	3
INFO 4424	Healthcare Workflow Process Analysis and Redesign	3
INFO 4426	Health Data Analytics	3
HCA 1115	US Health System	3
HCA 4465	Healthcare Operations and Quality	3
HCA 4489	Healthcare Information Systems Practicum	3

Additional courses required for Operations Management

Emphasis:		
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
One elective to be selected from the following courses:		3

ACCT 3341	Managerial and Cost Accounting	
ACCT 4403	Accounting Information Systems	
MKTG 4421	Services Marketing	
MKTG 4432	New Product Management	
Total Credits		48

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
BBA Core (Required General Education credits removed.)		44
Major Requirements (Required General Education credits removed.)		42
Upper Division Free Electives		0
Free Electives		0
Total Credits		123

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

Code	Title	Credits
INFO/CS 1181	Informatics and Programming I	3
INFO 1182	Informatics and Programming II	3

INFO 2220	Web Development:Client-Side Programming	3	INFO 4430	Web Application Development	3
INFO 3307	Systems Analysis and Design	3	Total Credits		18
INFO 4407	Database Design and Implementation	3			

Post-Baccalaureate Academic Certificate in Informatics

An academic certificate in Informatics is offered for those students who have a bachelor's degree in a field other than Business or Health Informatics and want to improve their knowledge of information systems. To earn a certificate in Informatics, a student must complete 33 total credit hours from the following list. At least twelve of those credits must be taken after the student has completed a bachelor's degree. Students must choose a Business Informatics emphasis or a Health Informatics emphasis.

Students must meet with an advisor and complete a Program of Study Agreement prior to the second semester of coursework.

Code	Title	Credits
INFO 1150	Software and Systems Architecture	3
INFO/CS 1181	Informatics and Programming I	3
INFO 1182	Informatics and Programming II	3
INFO 3301	Introduction to Informatics and Analytics	3
INFO 3307	Systems Analysis and Design	3
INFO 3380	Networking and Virtualization	3
INFO 4407	Database Design and Implementation	3
Select one of the following emphases:		12
Business Informatics Emphasis		
INFO 2220	Web Development:Client-Side Programming	
INFO 4482	Systems Development and Implementation Methodologies	
Students must take six (6) hours of Business courses in any of the following areas:		
Accounting		
Economics		
Finance		
Management		
Marketing		
OR		
Health Informatics Emphasis		
INFO/HCA 3330	Health Informatics	
INFO 4422	Health Information Governance	
Students must take two (2) courses from the following list:		
INFO 4424	Healthcare Workflow Process Analysis and Redesign	
HCA 1115	US Health System	
HCA 4465	Healthcare Operations and Quality	
HCA 4489	Healthcare Information Systems Practicum	
Total Credits		33

Students must complete at least three (3) credits as upper division coursework (3000 or 4000-level) within their selected emphasis.

Management

Programs in Management

Program Description	Type	Degree
Management, B.B.A. (p. 201)	Degree	B.B.A.
Management, B.B.A. - Human Resources Management Emphasis (p. 203)	Degree	B.B.A.
Management, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 202)	Degree	B.B.A.
Management, B.B.A. - Operations Management Emphasis (p. 204)	Degree	B.B.A.

Department Overview

Management majors may earn a degree in Management without emphasis or a degree in Management with emphasis in Human Resource Management, in Operations Management, or in Entrepreneurship/Small Business. Moreover, we include an applied educational component in our program so that our students have the opportunity to learn through applying the concepts studied in the classroom. College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement.

Faculty (p. 200)

Management Courses (p. 595)

Management Faculty

Chair and Professor

Tocher, Neil, Department Chair and Professor, Management and Marketing. B.S. 2002, Gonzaga University; M.S. 2005, Ph.D. 2007, Auburn University. (2007)

Professors

Krumwiede, Dennis W., Professor, Management. B.S. 1977, University of Nebraska, Lincoln; M.E.E.M. 1989, University of Colorado, Boulder; Ph.D. 1997, Kansas State University. (2000)

Murphy, Gregory B., Professor, Management. B.A. 1985, Weber State University; M.S. 1989, University of Central Texas; M.B.A. 1992, Ph.D. 1996, University of Houston. (2008)

Associate Professors

Bolinger, Alexander R., Associate Professor, Management. B.B.A. 2002, M.B.A. 2004, M.A. 2004, Idaho State University; Ph.D. 2010, University of Utah. (2011)

Street, Jeff, Associate Professor, Management. B.S. 1982, East Tennessee State University; M.B.A. 1990, University of Tennessee; Ph.D. 2007, University of Georgia. (2007)

Assistant Professors

Burch, Tyler C., Assistant Professor, Management. B.S. 2008, M.Acc. 2008, Brigham Young University; Ph.D. 2015, University of Washington. (2015)

Chen, Yan, Assistant Professor, Management, B.M, year?, Renmin University of China; MHRIR, year?, University of Illinois at Urbana-Champaign; Ph.D. year? Rutgers University (2018)

Assistant Clinical Professor

Peterson, Teri S., Assistant Clinical Professor, Management. B.A. 1977, University of California, Los Angeles; M.S. 1980, San Diego State University; M.S. 1989, Utah State University; Ed.D. 2013, Idaho State University. (1997)

Emeriti

Gantt, Gamewell D., Professor, Management. 1982-2004

Johnson, Mark A.,* Professor, Management. 1987-2018

Jolly, James P., Professor, Management. 1982-2015

Kilpatrick, John A., Professor, Management. 1977-2006

Pawar, Sheelwant B., Professor, Management. 1967-1999

Schou, Sue Bond, Associate Clinical Professor, Management. 1985-2019

Stratton, William E., Professor, Management. 1974-201

B.B.A. Management

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Management.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3

FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
MGT 4441	Leading in Organizations	3
MGT 4473	Human Resource Management	3
6 additional credits of upper division Management courses ²		6
6 additional credits of upper division College of Business courses ²		6
6 additional credits of upper division courses ²		6
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
Total Credits		120

¹ **The following courses satisfy the applied educational requirement:**
ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. Management with Entrepreneurship/ Small Business Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Management.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics (partially satisfies General Education Objective 6)	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	

INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
MGT/MKTG 4410	Entrepreneurship Opportunity Feasibility and Planning	3
MGT/MKTG 4411	Small Business and Entrepreneurship Practicum	3
MGT 4441	Leading in Organizations	3
MGT 4473	Human Resource Management	3
Four of the following:		12
ACCT 3341	Managerial and Cost Accounting	
ACCT 3360	Small Business Accounting	
FIN 4445	Real Estate Finance	
FIN 4464	Entrepreneurial Finance	
MGT 4465	International Business	
MGT 4480	Labor and Employment Law	
MKTG 4405	Personal Selling and Sales Force Management	
MKTG 4421	Services Marketing	
MKTG 4432	New Product Management	
MKTG 4480	Social Media Strategy	
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
Total Credits		120

¹ **The following courses satisfy the applied educational requirement:**
ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411,
and any 3393 Internship course or 4493 Advanced Internship course offered
from the College of Business.

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. Management with Human Resources Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Management.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	

INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement		
Total Credits		53

Major Requirements

Code	Title	Credits
MGT 4441	Leading in Organizations	3
MGT 4473	Human Resource Management	3
MGT 4474	Advanced Human Resource Management	3
MGT 4480	Labor and Employment Law	3
Three of the following:		9
MGT 4434	Productivity and Quality	
MGT 4461	Business Law	
MGT 4462	Issues in Business and Society	
MGT 4482	Project Management	
One applied education course:		3
ACCT 4493	Advanced Accounting Internship	
INFO 4493	Advanced Informatics Internship	
ACCT 4440	Accounting Practicum	
FIN 4451	Student Managed Investment Fund I	
FIN 4452	Student Managed Investment Fund II	
INFO 4488	Informatics Senior Project	
MGT/MKTG 4411	Small Business and Entrepreneurship Practicum	
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0

Free Electives	15
Total Credits	120

ISU Degree Requirements (p. 62)
 ISU General Education (p. 57)
 MAP

B.B.A. Management with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Management.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
	Objective 1	6
	Objective 2	3
	Objective 3 - MGT 2216	3
	Objective 4	6
	Objective 5	7
	Objective 6 - ECON 2201	6
	Students must fulfill Objective 7 or Objective 8	3
	Objective 7 - INFO 1181 or CS 1181	
	Objective 8 - INFO 1101 or FIN 1115	
	Objective 9	3
	Total Credits	37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
	Take one of the following:	3

INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7S)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
	College of Business Applied Educational Requirement ¹	
	Total Credits	53

Major Requirements

Code	Title	Credits
MGT 4441	Leading in Organizations	3
MGT 4473	Human Resource Management	3
	Additional courses required for Operations Management Emphasis:	
MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
	Two electives to be selected from the following courses:	6
ACCT 3341	Managerial and Cost Accounting	
ACCT 4403	Accounting Information Systems	
INFO 3307	Systems Analysis and Design	
MKTG 4421	Services Marketing	
MKTG 4432	New Product Management	
	6 additional credits of upper division courses ²	6
	Total Credits	24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
	Total Credits	120

¹ **The following courses satisfy the applied educational requirement:**
 ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411,
 and any 3393 Internship course or 4493 Advanced Internship course offered
 from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
 BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
 ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
 ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

Marketing

Programs in Marketing

Program Description	Type	Degree
Marketing, B.B.A. (p. 207)	Degree	B.B.A.
Marketing, B.B.A. - Entrepreneurship/Small Business Emphasis (p. 208)	Degree	B.B.A.
Marketing, B.B.A. - Operations Management Emphasis (p. 209)	Degree	B.B.A.
Marketing, Minor (p. 210)	Minor	

Department Overview

Marketing majors earn a degree in Marketing which provides students with the opportunity to augment the required marketing coursework with courses in other

Marketing Faculty

Chair and Professor

Tocher, Neil,* Department Chair and Professor, Management and Marketing. B.S. 2002, Gonzaga University; M.S. 2005, Ph.D. 2007, Auburn University. (2007)

Professor

Speck, Sandra K. Smith,* Professor, Marketing. B.A. 1977, MBA 1979, University of Wyoming; Ph.D. 1992, University of Illinois. (2005)

Assistant Professors

Hanson, Nicole, Assistant Professor, Marketing. B.S. 2002, M.A. 2004, San Jose State University; M.S. 2010, Ph.D. 2015, Texas A&M (2017)

Rose, Alexander S., Assistant Professor, Marketing. B.A. 2008, M.A. 2013, University of South Carolina; Ph.D. 2014, University of Arkansas. (2017)

Assistant Clinical Professor

Ney, John, Assistant Dean and Director of Professional Development, College of Business; Assistant Clinical Professor, Marketing. B.S. 1990, University of Idaho; M.A. 1991, Gonzaga University. (2013)

Professor Emeritus

Scott, Darrell F., Assistant Dean, College of Business; Senior Lecturer, Marketing. 1970-2007

disciplines which round out their areas of interest. These additional courses may be a combination of courses from multiple business or business-related disciplines, or can be a cohesive set of courses which earn the student a second major in another business area. Moreover, we include an applied educational component in our program so that our students have the opportunity to learn through applying the concepts studied in the classroom. College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement.

Faculty (p. 206)

Marketing Courses (p. 597)

B.B.A. Marketing

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Marketing.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
CMP 2201	Business and Professional Communication	3
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I	
FIN 1115	Personal Finance	
INFO 1101	Digital Information Literacy	
INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3

MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
MKTG 4426	Marketing Research	3
MKTG 4427	Consumer Behavior	3
6 credits of upper division Marketing courses ²		6
6 additional credits of upper division College of Business courses ²		6
6 additional credits of upper division courses ²		6
Total Credits		24

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		37
BBA Core (Required General Education credits removed.)		44
Major Requirements		24
Upper Division Free Electives		0
Free Electives		15
Total Credits		120

¹ **The following courses satisfy the applied educational requirement:** ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

² **The following courses will not fulfill the upper division requirements:**
Any upper division course in the BBA Core-
 BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460
Any 3000-level internship-
 ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393
Any College of Business course for non-business majors-
 ACCT 3303, FIN 3303, INFO 3303, MGT 3303

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. Marketing with Entrepreneurship/Small Business Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Marketing.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (Satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	
INFO 3301	Introduction to Informatics and Analytics	3

FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement		
Total Credits		53

Major Requirements

Code	Title	Credits
MKTG/MGT 4410	Entrepreneurship Opportunity Feasibility and Planning	3
MKTG/MGT 4411	Small Business and Entrepreneurship Practicum	3
MKTG 4426	Marketing Research	3
MKTG 4427	Consumer Behavior	3
MKTG 4432	New Product Management	3
MKTG 4454	Advanced Marketing Management	3
Two of the following:		6
ACCT 3341	Managerial and Cost Accounting	
ACCT 3360	Small Business Accounting	
FIN 4445	Real Estate Finance	
FIN 4464	Entrepreneurial Finance	
MGT 4465	International Business	
MGT 4480	Labor and Employment Law	
MKTG 4405	Personal Selling and Sales Force Management	
MKTG 4421	Services Marketing	
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
Total Credits		120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

MAP

B.B.A. Marketing with Operations Management Emphasis

Program Admissions Requirements

There are no program admission requirements for the B.B.A. in Marketing.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5		7
Objective 6 - ECON 2201		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - INFO 1181 or CS 1181		
Objective 8 - INFO 1101 or FIN 1115		
Objective 9		3
Total Credits		37

Core Business Course Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student in the B.B.A. program to complete the following courses:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BA 2210	Introduction to Professional Development I	1
BA 3310	Exploring Professional Development II	1
ECON 2201	Principles of Macroeconomics (partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics	3
CMP 2201	Business and Professional Communication	3
ENGL 3307 or ENGL 3308	Professional and Technical Writing Business Communications	3
Take one of the following:		3
INFO/CS 1181	Informatics and Programming I (satisfies General Education Objective 7)	
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	
FIN 1115	Personal Finance (Satisfies General Education Objective 8)	

INFO 3301	Introduction to Informatics and Analytics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics (satisfies General Education Objective 3)	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Production Management	3
MGT 4460	Strategic Management	3
MKTG 2225	Basic Marketing Management	3
College of Business Applied Educational Requirement ¹		
Total Credits		53

Major Requirements

Code	Title	Credits
MKTG 4426	Marketing Research	3
MKTG 4427	Consumer Behavior	3

Additional courses required for Operations Management Emphasis:

MGT 4434	Productivity and Quality	3
MGT 4482	Project Management	3
MKTG 4421	Services Marketing	3
MKTG 4432	New Product Management	3
6 additional credits of upper division courses ²		6
Total Credits		24

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	BBA Core (Required General Education credits removed.)	44
	Major Requirements	24
	Upper Division Free Electives	0
	Free Electives	15
Total Credits		120

¹ The following courses satisfy the applied educational requirement: ACCT 4440, FIN 4451, FIN 4452, INFO 4488, MGT 4411/MKTG 4411, and any 3393 Internship course or 4493 Advanced Internship course offered from the College of Business.

² The following courses will not fulfill the upper division requirements:	ISU Degree Requirements (p. 62)
<u>Any upper division course in the BBA Core-</u>	ISU General Education (p. 57)
BA 3310, FIN 3315, INFO 3301, MGT 3312, MGT 3329, MGT 4460	
<u>Any 3000-level internship-</u>	MAP
ACCT 3393, ECON 3393, FIN 3393, INFO 3393, MKTG 3393	
<u>Any College of Business course for non-business majors-</u>	
ACCT 3303, FIN 3303, INFO 3303, MGT 3303	

Minor in Marketing

Students receiving degrees in other colleges may satisfy the requirements for a Marketing minor by completing the following courses:

Code	Title	Credits
MKTG 2225	Basic Marketing Management	3
MKTG 4427	Consumer Behavior	3
6 Additional credits in Marketing Electives		6
6 approved upper division credits from the students major.		6
Total Credits		18

College of Education

Overview

The College of Education prepares students for various careers in Education, Organizational Performance, and Sport Science. Students who seek to enter education-related professions are known as "candidates." Candidates pursuing teaching, professional school personnel, or administrative careers in schools will find an assortment of integrated programs organized to meet their professional aspirations. All programs in the College are experiential, collaborative, standards-based, assessment-informed, research-guided, and technology-supported. Idaho State University has an institutional commitment to educator preparation. Educator preparation programs are offered through the faculties of the College of Education, the College of Arts and Letters, the College of Science and Engineering, and the Kasiska Division of Health Sciences.

College Structure

The College is organized into four academic departments and five centers/offices:

Organizational Learning and Performance

Robert W. Lion, Ph.D., Chair

The Department of Organizational Learning and Performance offers three graduate degrees - Master of Science in Human Resource Development (M.S. HRD), Master of Education in Instructional Design and Technology (M.Ed. IDT), and Doctor of Philosophy in Instructional Design (Ph.D.) [no longer accepting students] - and an undergraduate degree: Bachelor of Science in Workplace Training and Leadership (B.S. WTL) that focus on organizational performance as it relates to training, learning and development, leadership, instructional design, and performance improvement. The primary discipline is Human Resource Development.

Program participants range from traditional undergraduate students to seasoned managers and supervisors. The degrees are aimed to prepare students to be knowledgeable and highly effective in a variety of organizations in both the for-profit and not-for-profit environments, including education and public service/government.

The Department of Organizational Learning and Performance also offers two undergraduate degrees and certification courses for the State of Idaho Career and Technical Education (CTE). The Bachelor of Science in Business Education (B.S. BED) and the Bachelor of Science in Family and Consumer Sciences (B.S. FCS-General and B.S. FCS-Education) are degree programs that credential graduates to teach specific CTE endorsements at the secondary and post-secondary level. Many CTE professionals or aspiring CTE instructors elect to apply the suite of the four required CTE certification courses towards the Master of Science in Human Resource Development degree or the Bachelor of Science in Workplace Training and Leadership degree.

Sport Science and Physical Education

John Fitzpatrick, Ph.D., Chair

The Department of Sport Science and Physical Education offers undergraduate and graduate degrees in physical education and the physical education major for secondary education. The undergraduate degrees have four elective emphasis areas--exercise science, outdoor education, physical education teaching K-12, and sport management. Minors in coaching, outdoor education, and sport management are also offered.

Teaching and Educational Studies

Esther Ntuli, Ed.D., Associate Professor, Chair

The Department of Teaching and Educational Studies offers undergraduate and graduate degree programs in elementary education, secondary education, early childhood education, special education, and general family and consumer sciences. The department also offers core courses in educational foundations for teacher preparation programs and Master of Education degree programs.

Department of School Psychology and Educational Leadership

Patti Mortensen, Ed.D., Assistant Professor, Chair

The Department of School Psychology and Educational Leadership offers graduate programs in school psychology and educational leadership, including both public school and higher education administration.

Albion Center for Education Innovation

Gabriel Rodriguez, Albion Center Program Coordinator

The Albion Center for Education Innovation collaborates with local school districts, education agencies, professional organizations, and policy makers throughout the Intermountain West by establishing partnerships that enhance the delivery of quality education. The center coordinates professional education programs and coursework, agency/school development, business and community partnerships, and research with its related services.

Joe and Pauline Kent Center for Student Success

Amy Slack, Ed.D., Coordinator

Jamie Webster, Ed.D., Coordinator

Amy Bytof, Outreach & Marketing Coordinator

The Joe and Pauline Kent Center for Student Success provides assistance to students through recruitment, advising, clinical experience, and teacher certification. The Kent Center also provides resources to prospective and current students and alumni.

Instructional Materials Center

Shu-Yuan Lin, Ed.D., Coordinator

The Instructional Materials Center (IMC) serves as the state repository for curricular materials currently under adoption in Idaho. The Center also houses varied collections of other materials including teaching manipulatives, video and audiotapes, computer software, theses and dissertations, and other professional materials. These collections are maintained to serve students and faculty in the College of Education, the entire campus community, and area in-service educators.

Admission to Teacher Education

Candidates must make a formal application and complete an interview for admission to Teacher Education. The College approves the standards for admission. Application for admission can be completed through forms available in the Kent Student Support Center of the College of Education following the completion of at least 12 credit hours of college work. Candidates may not register for courses that require admittance to Teacher Education or register for courses that have prerequisites that require admittance to Teacher Education until

admission is achieved. Candidates who have been denied admittance may reapply when qualification criteria have been met; however, they must meet the standards for admission in place at the time of their reapplication to attain admission.

Criteria for admission include the following:

1. A 3.0 overall grade point average including all transfer credits or credits earned in a previous degree program.
2. A successful background check (see above in Background Checks and Fingerprinting).
3. Presentation of minimum scores achieved on the Praxis Core Academic Skills for Educators Assessments or SAT/ACT. Passing scores are available in the Kent Student Success Center located in the College of Education.

Declaration of Major/Program

The College of Education offers degree programs in both teacher certification and non-teaching options. Candidates for degrees must choose from among the approved majors, minors, or emphasis areas of their degree programs. Candidates seeking teacher certification must choose from among the teaching concentrations that result in endorsements, and must choose the teaching option of their degree program. Declaration of major/program must be accomplished by the time a candidate has completed 58 credits of coursework. For candidates in physical education (non-teaching and teacher certification options), this is usually accomplished at the time of application and admission to the program. For teacher candidates, this is usually accomplished at the time of application and admission to Teacher Education (see the section on Teacher Education). Prior to admission to Teacher Education, prospective teacher candidates will be classified as Pre-Majors in their respective degree programs.

General Education Requirements

All candidates who have declared a major in the College of Education and plan to acquire a Bachelor of Arts, Bachelor of Science, or Bachelor of Music Education degree must complete the objectives of the university's General Education Requirements (p. 57). A minimum total of thirty-six (36) credit hours of General Education coursework must be taken for all baccalaureate degrees. Candidates transferring to Idaho State University from a junior college that is part of the statewide articulation agreement should refer to the Transfer Credit Limitations in the Undergraduate Admission (p. 49) section of this catalog to determine fulfillment of the University General Education requirements; however, all candidates who plan to enter teacher education and who plan to complete the Student Teaching Internship must fulfill, or have fulfilled, General Education Objectives 1, 2, and 3. Candidates who possess a bachelor's degree in a discipline other than education and desire to complete requirements for a teaching certificate in any area must complete, or have completed, General Education Objectives 1, 2, and 3 prior to placement in a Student Teaching Internship (or equivalent). Checklists available in the College of Education Advising Center provide guidance for candidates in the Elementary, Secondary, and Special Education programs.

Reasonable Accommodation for Candidates with Disabilities

If you have a diagnosed disability or believe that you have a disability that might require "reasonable accommodation" on the part of the instructor, please call the Director of Disability Services, (208) 282-3599. As a part of the Americans with Disabilities Act, it is the responsibility of the candidate to disclose a disability prior to requesting reasonable accommodation.

Teacher Education

Teaching degree programs that lead to certification are offered through the College of Education. They have been designed to meet the Idaho standards

and requirements for initial certification of professional school personnel as approved by the Idaho State Board of Education and the Idaho State Department of Education. The College of Education has responsibility for preparing teacher candidates in accordance with IDAPA 08.02.02.016-030. Preparation for endorsements is conducted in collaboration with the College of Arts and Letters, the College of Science and Engineering, and the Kasiska Division of Health Sciences for teacher education programs. The programs specified in this catalog comply with the current State of Idaho standards and requirements for certifications and endorsements. Idaho certification ensures reciprocity with the certification standards and requirements of most states. The teacher education programs described in this catalog have been approved by the State Board of Education as required for program completers to be eligible for certification. Approved programs are also available to qualified persons holding bachelor's degrees from accredited institutions seeking teaching certification. Candidates pursuing initial teacher certification, whether degree-seeking or not, must fulfill all teacher education requirements as outlined for institutional recommendation for teaching certification in the area of certification (i.e., Early Childhood, Elementary, Secondary, etc.) and for endorsements (i.e., Biology, History, etc.) on the certificate.

Teacher education programs are updated regularly to reflect changes to the Idaho standards and requirements. Hence, regardless of the Idaho State University Undergraduate Catalog declared for the purpose of meeting ISU graduation requirements, teacher candidates may need to meet changes to certification requirements as specified by the Idaho State Board of Education and the Idaho State Department of Education in order to be eligible for recommendation for initial teacher certification at the time of program completion.

The Joe and Pauline Kent Center for Student Success informs candidates about changes to certification requirements, particularly changes to required tests and qualifying scores.

Standard Teaching Certificates

Persons completing an initial certification program (a.k.a. Program Completers) are eligible for recommendation from the College of Education for a Standard Instructional Certificate.

For administrator certificates, pupil personnel services certificates (such as school psychologist or school guidance counselor), and the Standard Exceptional Child Certificate with the Hearing Impaired (K-12) endorsement, see the College of Education section of the Graduate School Catalog (<http://coursecat.isu.edu/graduate/education>) or pertinent sections of the undergraduate or graduate catalogs for programs offered by the Kasiska Division of Health Sciences. Candidates interested in becoming certified teachers of children who are deaf/hard of hearing in Idaho will need to earn a bachelor's degree and must meet the requirements for a Standard Instructional Certificate.

Accreditations

The State of Idaho participates in a partnership agreement with the Council for the Accreditation of Educator Preparation (CAEP). To be considered State Board of Education-approved, all educator preparation programs must meet CAEP accreditation standards and they must be reviewed and approved by the Idaho State Department of Education according to IDAPA 08.02.02.100. The College of Education is fully accredited by CAEP and its programs have been reviewed and approved by the Idaho State Department of Education. In addition, programs can achieve national recognition through accreditation by national organizations in their areas of specialization. The Bachelor of Music Education is accredited by the National Association of Schools of Music. The School Psychology programs (see the Graduate School catalog (<http://coursecat.isu.edu/graduate/education>)) are accredited by the National Association of School Psychologists. The Master of Science in Athletic Training program (see the Graduate School catalog (

coursecat.isu.edu/graduate/education)) is accredited through the Commission on Accreditation of Athletic Training Education.

Teacher Certification Only and Accelerated Certification

Persons who already hold a Bachelor of Arts or Bachelor of Science degree in a state approved endorsement area (or an area that is closely related) may seek teaching certification by completing an initial teacher certification program through the College of Education. Candidates must meet the entrance requirements for admission to Teacher Education (although some admission requirements may be waived by petition – see the section on petitions). For further information on an individualized plan for teacher certification, please contact the Kent Center at edadvise@isu.edu. In addition to application to Teacher Education, candidates for certification-only must complete a Request for Evaluation of Transcripts and submit their transcripts from other institutions for evaluation. For post-baccalaureate secondary education, candidates for secondary education will be required to complete the Professional Education Core classes, in addition to meeting state testing requirements. Candidates seeking certification also have the option of pursuing a second bachelor's degree (see the requirements elsewhere in the catalog and discuss this option with an advisor). See below for links to course requirements for State of Idaho teacher certification.

Elementary Education, Certification Only

<http://coursecat.isu.edu/undergraduate/education/elementaryeducation/elementary-ed-certification-only/>

Secondary Education, Certification Only

<http://coursecat.isu.edu/undergraduate/education/secondaryeducation/secondary-ed-certification-only/>

Alternative Routes to Certification

Idaho permits individuals to become certificated teachers without following a standard teacher education program through one of several Alternative Route programs according to IDAPA 08.02.02.042-047. For more information, see the Idaho State Department of Education website at <http://www.sde.idaho.gov>. The Alternative Route programs require submission of an application packet and a plan that is approved by the Idaho State Department of Education. Some of the alternative routes require a request from and the participation of an employing school district. Some alternative routes require participation of a college or university. For the College of Education at Idaho State University to participate in an Alternative Route plan, a copy of the plan must be filed with and signed by the dean or associate dean of the College of Education. The candidate must be admitted to enroll in courses through the university and the candidate must meet other admission requirements as determined by the College of Education (such as verification of a successful background check). Candidates will be assigned a qualified faculty mentor/supervisor from the related regular route teacher preparation program. Because alternative routes are individualized programs, additional fees may be charged.

Additional Endorsements

Candidates for the Standard Instructional Certificate are qualified for subject area endorsements as outlined in IDAPA 08.02.02.22-24 and the requirements for initial certification of professional school personnel. To add endorsements, candidates can complete additional coursework in a content area prior to graduation or they can add endorsements to their existing Standard Instructional Certificate after graduation and initial certification (see the Idaho State Department of Education website at <http://www.sde.idaho.gov> for the procedures and requirements for adding endorsements to an existing Standard Instructional Certificate). Persons who already hold a Bachelor of Arts or Bachelor of Science degree and an existing Standard Instructional Certificate can be admitted to the university as non-degree seeking to pursue additional endorsements. This does not require admission to Teacher Education. Additional fees may be charged.

Background Checks and Fingerprinting

Applicants to Teacher Education are required to have completed a background check before taking any course that requires admission to Teacher Education. Usually, the initial background check is completed while taking EDUC 2201. Initial background checks are completed through Castle Branch. Castle Branch is a secure platform that allows you to order your background check online. For specific instructions, contact the College of Education Kent Center. Any time there is a break in the continuance of classes after admission to Teacher Education, candidates will be required to complete a new background check. The State Department of Education requires a second, full background check that includes fingerprinting before a student-teaching internship. Be aware that the second background check may take up to eight weeks so you should plan ahead. For additional information, contact the Kent Center edadvise@isu.edu.

Professional Education Core

In addition to meeting General Education requirements, teaching field requirements, and program-specific professional knowledge/methodology requirements, programs preparing candidates for Idaho teaching certificates must ensure that program completers have coursework and preparation in educational foundations and general methodology. The College has approved a set of professional core courses to fulfill these requirements and ensure that teacher candidates demonstrate competency with respect to the Idaho Core Teacher Standards through course-embedded performance assessments. In general, the professional core courses are taught by faculty in the Department of Teaching and Educational Studies and are taken by candidates across the teacher preparation programs. See the list of Professional Education Core courses required by your program because they vary slightly by degree program.

Dismissal and Probation Policies

Candidates admitted to Teacher Education are subject to the same general policies as the rest of the students of Idaho State University as far as probation and dismissal from the institution are concerned. Candidates must continue to demonstrate satisfactory progress in achieving the standards of their programs. In addition to academic standards, candidates may be dismissed from Teacher Education for conduct contrary to the professional standards of the Idaho State Department of Education: <https://sde.idaho.gov/cert-psc/psc/ethics.html> (latest revision, Idaho State Department of Education). Although admission to Teacher Education is to a specific program, dismissal from any teacher preparation program is a dismissal from Teacher Education. Candidates on probation who desire to switch their program to another program in the college or university must file a petition to obtain approval.

Student Teaching Internship

The student teaching internship is designed to be the culminating professional clinical experience for Teacher Education Candidates. The sixteen week internship is an educational opportunity accomplished beyond the confines of the university classroom and is designed to provide practical application for theory learned in the university classroom. It is directly connected to program requirements and is supported and supervised by a Cooperating Teacher and a University Supervisor. The internship provides an opportunity for the intern to assume major responsibility for the full range of teaching in an approved school setting. During the internship, candidates complete performance-based assessments that document their ability to plan, deliver, and assess standards-based instruction.

All requirements for GPA, Praxis II and ICLA exams, and completed coursework must be met the semester before the internship. It is the teacher candidate's responsibility to inform the Kent Center when all requirements have been met, no later than two months before the beginning of the internship.

Applications for all teaching internships are located in Taskstream and must be submitted in Taskstream by October 20 for fall semester of the following year, and by April 20 for spring semester of the following year. The program of study must also be submitted and signed by the candidate's advisor(s) and approved by the Kent Center.

Interns seeking an out of area placement must provide a compelling reason for the out of area placement with the application. Out of area placements are defined as any placement not in Regions IV, V, or VI. There is a \$50 application fee due with the application, a \$50 fee for late applications due with the application, and a \$50 fee for out of area placements, due at the Assignment Information meeting. Candidates requesting out of area placements will also be responsible for a portion of the university supervisor and cooperating teacher stipend.

The candidate must meet the following criteria for enrollment in a student teaching internship (EDUC 4492, EDUC 4494, EDUC 4495, EDUC 4496, BED 4496, FCS 4493, PE 4495 or SPED 4495):

1. Admission to the Teacher Education program.
2. Completion of all program requirements unless specifically approved by petition.
3. Completion of at least 67% of the professional education core credits required by the program from Idaho State University.
4. A 3.0 grade point average overall including all transfer credits or credits earned in a previous degree program.
5. A 3.0 grade point average in the professional education core including all transfer credits or credits earned in a previous degree program with a grade of C [2.0] or higher in all courses used for the professional education core.
6. A grade point average of 3.0 or higher in all courses in the Required Elementary Education Courses for the Bachelor of Arts or Bachelor of Science in Elementary Education and all Required Secondary Education Courses for the Bachelor of Arts or Bachelor of Science in Secondary Education with no grade lower than C [2.0]. A grade point average of 3.0 in all Required Special Education Courses for the Bachelor of Arts or Bachelor of Science in Special Education and no more than one grade of C [2.0] or lower.
7. A 3.0 grade point average in the teaching endorsement (major and minor) (secondary) or endorsement (emphasis) area (elementary) including all transfer credits or credits earned in a previous degree program with no grade lower than C [2.0].
8. A grade of C [2.0] or higher in ENGL 1102, Critical Reading and Writing, or College of Education-approved equivalent course.
9. Successful completion of the Praxis II Content Test(s) in each area being recommended for certification. The Idaho qualifying scores required for each test are available in the Kent Center and the College of Education dean's office.
10. For Elementary Education, Special Education, and Early Childhood Education candidates, applicants must demonstrate successful completion of all standard tests of the Idaho Comprehensive Literacy Assessment.

Qualifying scores for the ICLA are available in the College of Education Kent Student Success Center.

Application for Certification

Application for certification is separate from applying for graduation. Program completers are eligible for institutional recommendation for State of Idaho professional educator certification. It is the responsibility of the applicant to have the Institutional Recommendation completed. Certification applications are forwarded to the State Department of Education Certification Office in Boise. Applications for the Standard Instructional Certificate, the Administrator Certificate, or the Pupil Personnel Services Certificate are available in the College of Education Kent Center or on-line at <https://www.isu.edu/education/> or the Idaho State Department of Education website at <http://www.sde.idaho.gov/cert-psc/cert/>. Candidates who desire to pursue professional educator certification in a state other than Idaho are advised to consult with the Kent Center regarding procedures and reciprocity agreements with other states.

The dean or the dean's designee is the official certification officer for the College of Education; all requests for certification must be processed and signed by the certification officer before the papers can be processed by any state Office of Certification. Verification of completion of an Idaho State Board of Education-approved teacher preparation program is required to support the application for an Idaho credential. Verification of Idaho qualifying scores for all state-required tests in each area being recommended for certification is also required. The College of Education maintains a record of all individuals recommended for certification. The dean and the faculty of the College of Education reserve the right to refuse to recommend a program completer for a standard teaching certificate if such recommendation would appear to be contrary to or in violation of Sections 33-1202 and/or 33-1208, Idaho Code.

Petitions

Petitions to be allowed to deviate from institutional policies require submission of an Idaho State University Undergraduate Student Petition and appropriate supporting documentation (See the Petition Policies (p. 79) stated elsewhere in this catalog). Petitions to be allowed to deviate from College of Education policies and requirements require submission of an Internal College of Education Petition with supporting documentation. Internal petitions are initiated with an advisor or course instructor on forms available at <https://www.isu.edu/education/> and the Kent Center. For petitions involving Teacher Education requirements, an Education Advisor from the Kent Center will review the petition, provide a recommendation, and sign the petition. Petitions also require the signature and the recommendation of the appropriate program major advisor, program coordinator, or department chair. Internal petitions are approved or denied by the associate dean (or dean) of the College of Education. A copy of the petition is retained by the College of Education in the candidate's official file. If additional action is required, approved petitions are advanced to the Registrar's Office.

College of Education Leadership (p. 214) Programs (p. 216)

College of Education Leadership

Dean

(vacant)

Interim Associate Dean

Sammons-Lohse, Dorothy,* Interim Dean, College of Education; Associate Professor, Organizational Learning and Performance. B.A. 1975, Bates College,

Lewiston, ME; M.A. 1980, University of Utah; Ed.D. 1999, Idaho State University. (1990)

Assistant Dean

Neill, Mark W.*, Assistant Dean, College of Education; Associate Professor, Educational Leadership. B.S. 1977, Western Montana College; M.Ed. 1995, Ed.D. 1999, University of Montana. (2004)

College of Education Programs

Programs

(Other Than Elementary Education or Secondary Education)

Program Description	Type	Degree
Blended Early Childhood Education, B.A. (p. 222)	Degree	B.A.
Career and Technical Education, Certificate (p. 264)	Certificate	
Coaching, Minor (p. 258)	Minor	
Consumer Economics, Minor (Non-Certification) (p. 223)	Minor	
Deaf Education, Minor (Non-Certification) (p. 250)	Minor	
Exercise Science, Emphasis (for the B.A./B.S. in PE) (p. 253)	Emphasis	
Family and Consumer Sciences, Minor (Non-Certification) (p. 223)	Minor	
General Family and Consumer Sciences, B.S. (Non-Certification) (p. 222)	Minor	
Music Education, B.M.E. (K-12 Endorsement) (p. 155)	Degree	B.M.E.
Organizational Leadership, Baccalaureate Certificate (p. 264)	Certificate	
Outdoor Education, Emphasis (for the B.A./B.S. in PE) (p. 254)	Emphasis	
Outdoor Education, Minor (p. 259)	Minor	
Physical Education, B.A./B.S. (p. 253)	Degree	B.A./B.S.
Physical Education Teaching (K-12), Emphasis (for the B.A./B.S. in PE) (p. 256)	Emphasis	
Special Education, B.A./B.S. (K-12 Endorsement) (p. 250)	Degree	B.A./B.S.
Sport Management, Emphasis (for the B.A./B.S. in PE) (p. 257)	Emphasis	
Sport Management, Minor (p. 260)	Minor	
Training and Development, Certificate (p. 264)	Certificate	
Workplace Training and Leadership, B.S. (p. 262)	Degree	B.S.
Workplace Training and Leadership - CTE Option, B.S. (p. 263)	Degree	B.S.
Workplace Training and Leadership, Minor (p. 263)	Minor	

Elementary Programs

Program Description	Type	Degree
Elementary Education, B.A./B.S. (p. 225)	Degree	B.A./B.S.
Biological Sciences, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
Earth Sciences/Geology, 20 Credit Endorsement (p. 238)	20 Credit Endorsement	
English, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	

English as a Second Language (ESL), 20 Credit Endorsement (p. 237)	20 Credit Endorsement
History, 20 Credit Endorsement (p. 241)	20 Credit Endorsement
Mathematics, 20 Credit Endorsement (p. 243)	20 Credit Endorsement
Special Education, 20 Credit Endorsement (p. 227)	20 Credit Endorsement

Secondary Programs

Program Description	Type	Degree
Secondary Education, B.A./B.S. (p. 230)	Degree	B.A./B.S.
American Government, 20 Credit Endorsement (p. 231)	20 Credit Endorsement	
American Government, 30 Credit Endorsement (p. 231)	30 Credit Endorsement	
Art, 45 Credit Endorsement (p. 231)	45 Credit Endorsement	
Biological Sciences, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
Biological Sciences, 30 Credit Endorsement (p. 231)	30 Credit Endorsement	
Biological Sciences, 45 Credit Endorsement (p. 232)	45 Credit Endorsement	
Business Education, 20 Credit Endorsement (p. 232)	20 Credit Endorsement	
Business Education, 30 Credit Endorsement (p. 232)	30 Credit Endorsement	
Business Technology, 45 Credit Endorsement (p. 233)	45 Credit Endorsement	
Chemistry, 20 Credit Endorsement (p. 233)	20 Credit Endorsement	
Chemistry, 30 Credit Endorsement (p. 234)	30 Credit Endorsement	
Chemistry, 45 Credit Endorsement (p. 234)	45 Credit Endorsement	
Communication, 20 Credit Endorsement (p. 234)	20 Credit Endorsement	
Communication, 30 Credit Endorsement (p. 234)	30 Credit Endorsement	
Communication, 45 Credit Endorsement (p. 234)	45 Credit Endorsement	
Drama, 20 Credit Endorsement (p. 235)	20 Credit Endorsement	
Drama, 30 Credit Endorsement (p. 235)	30 Credit Endorsement	
Drama, 45 Credit Endorsement (p. 235)	45 Credit Endorsement	
Economics, 20 Credit Endorsement (p. 236)	20 Credit Endorsement	
Economics, 30 Credit Endorsement (p. 236)	30 Credit Endorsement	

English, 30 Credit Endorsement (p. 236)	30 Credit Endorsement
English, 45 Credit Endorsement (p. 236)	45 Credit Endorsement
English as a Second Language (ESL), 20 Credit Endorsement (p. 237)	20 Credit Endorsement
Family and Consumer Sciences, 45 Credit Endorsement (p. 224)	45 Credit Endorsement
French, 20 Credit Endorsement (p. 238)	20 Credit Endorsement
French, 30 Credit Endorsement (p. 238)	30 Credit Endorsement
Geology, 20 Credit Endorsement (p. 238)	20 Credit Endorsement
Geology, 30 Credit Endorsement (p. 239)	30 Credit Endorsement
Geology, 45 Credit Endorsement (p. 239)	45 Credit Endorsement
German, 20 Credit Endorsement (p. 239)	20 Credit Endorsement
German, 30 Credit Endorsement (p. 240)	30 Credit Endorsement
Health Education Teaching, 20 Credit Endorsement (p. 240)	20 Credit Endorsement
Health Education Teaching, 30 Credit Endorsement (p. 240)	30 Credit Endorsement
Health Education, 45 Credit Endorsement (p. 240)	45 Credit Endorsement
History, 20 Credit Endorsement (p. 241)	20 Credit Endorsement
History, 30 Credit Endorsement (p. 242)	30 Credit Endorsement
Journalism, 20 Credit Endorsement (p. 243)	20 Credit Endorsement
Mathematics, 20 Credit Endorsement (p. 243)	20 Credit Endorsement
Mathematics, 30 Credit Endorsement (p. 243)	30 Credit Endorsement
Mathematics, 45 Credit Endorsement (p. 243)	45 Credit Endorsement
Physical Education, 45 Credit Endorsement (p. 243)	45 Credit Endorsement
Physics, 20 Credit Endorsement (p. 244)	20 Credit Endorsement
Physics, 30 Credit Endorsement (p. 244)	30 Credit Endorsement
Social Studies, 30 Credit Endorsement (p. 244)	30 Credit Endorsement
Spanish, 20 Credit Endorsement (p. 245)	20 Credit Endorsement
Spanish, 30 Credit Endorsement (p. 245)	30 Credit Endorsement

Business Education Program

Program Objectives

The Business Education program expects its candidates to:

1. Develop career awareness and related skills to enable candidates to make viable career choices and become employable in a school setting.
2. Develop in-depth knowledge of technology as it relates to the business education curriculum.
3. Develop and demonstrate the appropriate methodologies for successfully teaching the business education curriculum.
4. Develop skills and knowledge in business education subject matter.
5. Develop competencies in professional technical education.
6. Develop decision making and management skills to be effective as a classroom teacher.

Teaching Endorsements

The Business Education program offers 20, 30, and 45 credit teaching endorsements in Business Education. The program meets the standards for the Business Technology Education standard certification for the Idaho State Department of Education in secondary education (grades 6-12). Additionally the program includes coursework leading to occupational certification by the Idaho Division of Career and Technical Education.

The graduate would be qualified to teach all business education courses such as: Computer Technology, Computer Programming, Information Technology, Interactive Media, Business Computer Applications, Interactive Media-Graphics/Video, Computer Design, Web design, Publishing, Digital Imaging Technology, Graphic Communications, Photography, Business Essentials, Financial Services, Banking & Credit, Finance, Insurance, Input Technologies, Business Management, Business Law & Ethics, Business Math, Accounting, Computerized Accounting, Office Technologies, Business Administration, and Entrepreneurship.

The Business Education program also participates in Business Professionals of America at the post-secondary level and provides additional opportunities for the potential business education teacher.

The Business Education curricula are listed in the Secondary Education Teaching Endorsements (p. 229) section.

BED Courses (p. 516)

Teaching and Educational Studies

Overview

The Department of Teaching and Educational Studies offers undergraduate and graduate degree programs in elementary education, secondary education, early childhood education, special education, and general family and consumer sciences. The department also offers core courses in educational foundations for teacher preparation programs and Master of Education and Master of Arts in Teaching degree programs.

The Department of Teaching and Educational Studies offers the following program areas:

- Bachelor of Arts in Blended Early Childhood Education (p. 221)
- Bachelor of Arts or Bachelor of Science in Elementary Education (p. 225)
- Bachelor of Arts or Bachelor of Science in Secondary Education (p. 229)
- Bachelor of Arts or Bachelor of Science in Special Education (p. 249)

Faculty (p. 219)

EDUC Courses (p. 549)

Teaching and Educational Studies Faculty

Chair and Associate Professor

Ntuli, Esther,* Chair and Associate Professor, Educational Foundations. B.A.Ed. 2000, Africa University; M.A. 2006, Ed.D. 2010, Illinois State University. (2011)

Professor

Ray, Beverly B.,* Professor, Teaching and Educational Studies. B.S. 1984, University of Texas; M.A. 1989, Ph.D. 2000, University of Alabama. (2001)

Associate Professor

Bennett, Cory A.,* Associate Professor, Educational Foundations. B.A. 2005, Western Washington University; M.Ed. 2008, Ph.D. 2010, University of Hawaii at Manoa. (2011)

Neill, Mark W.,* Assistant Dean, College of Education; Associate Professor, Educational Leadership. B.S. 1977, Western Montana College; M.Ed. 1995, Ed.D. 1999, University of Montana. (2004)

Assistant Professors

Gallup, Jennifer,* Assistant Professor, Teaching and Educational Studies. BS. 2008, Washington State University; M.A. 2012, Ph.D. 2015, University of Central Florida. (2015)

Perihan, Celal, Assistant Professor, Teaching and Educational Studies. B.A. 2008, AIBU University, Turkey; Master in SPED 2012, Cleveland State University; Ph.D. 2018, Texas A&M University. (2018)

Rucht, Wendy,* Assistant Professor, Educational Foundations. B.S. 1993, Brigham Young University; M.S. 2001, Ph.D. 2005, University of Idaho.

Clinical Associate Professor

Lin, Shu-Yuan,* Clinical Associate Professor, Teaching and Educational Studies; Coordinator, Instructional Materials Center. B.A. 1985, National Chungshing University, Taiwan; M.Ed. 1993, University of Houston; Ed.D. 2003, Idaho State University. (2001)

Clinical Assistant Professors

Bartle, Corey, Clinical Assistant Professor, Teaching and Educational Studies. B.A. 1998, Western Washington University; M.Ed. 2002, Eastern Washington University; Ph.D. 2012, University of Washington. (2016)

Beasterfield, Suzanne, Clinical Instructor, Teaching and Educational Studies. B.A. 1996, Brigham Young University; M.A. 2002, Washington University, St. Louis, MO. (2014)

Eller, Amanda,* Clinical Assistant Professor, Teaching and Educational Studies. B.S. 1997, Idaho State University; M.Ed. 2008, Lesley College; Ed.S. 2012, Ph.D. 2015, Northwest Nazarene University. (2014)

Clinical Instructor

Walters, Jennifer A., Clinical Instructor, Teaching and Educational Studies. B.A. 2008, Idaho State University; M.Ed. 2012, Northwest Nazarene University. (2017)

Clinical Associate Lecturer

Toevs, Joanne L., Clinical Lecturer, Teaching and Educational Studies. B.B.A. 1983, Boise State University; B.S. 2003, M.Ed. 2005, Idaho State University. (2005)

Clinical Assistant Lecturer

Schroeder, Michelle, Assistant Lecturer, Teaching and Educational Studies. B.A. 2000, M.Ed. 2002, Idaho State University. (2010)

Emeriti

Bliss, Traci, Professor, Educational Foundations. 1996-2008

Coffland, Jack A., Professor, Education; Coordinator, Center for Accountability Systems (Education). 1992-1999

Denner, Peter, Professor, Education; 1982-2015

Frantz, Alan C.,* Professor, Educational Leadership. 1987-2017

Lerch, Robert, Professor, Education. 1971-1995

Luckey, Angela S., Associate Professor, Educational Foundations. 1996-2009

Marcum, R. Laverne, Professor, Education. 1969-1984

Newsome, Jack D.,* Associate Professor, Educational Foundations. 1997-2011

Newsome, Julie Renee,* Associate Professor, Educational Foundations. 1998-2013

Pehrsson, Robert S.,* Professor, Teacher Education. 1980-2003

Peña, Sally J.,* Professor, Educational Foundations. 1990-2010

Rankin, Roger A. * Professor, Educational Foundations. 1981-2011

Sagness, Richard L., Director, Office of Clinical Experiences and Student Services; Professor, Teacher Education. 1979-1999

Salzman, Stephanie, Professor, Teacher Education. 1986-2002

Spadafore, Gerald J., Professor, Teacher Education. 1969-1999

Squires, David, Professor, Teaching and Educational Studies. 2000-2016

*indicates graduate faculty status.

Family and Consumer Sciences

Program Description	Type	Degree
Blended Early Childhood Education, B.A. (p. 222)	Degree	B.A.
Consumer Economics, Minor (Non-Certification) (p. 223)	Minor	
Family and Consumer Sciences, 45 Credit Endorsement (p. 224)	Endorsement	
Family and Consumer Sciences, Minor (Non-Certification) (p. 223)	Minor	
General Family and Consumer Sciences, B.S. (Non-Certification) (p. 222)	Degree	B.S.

Overview

These degree areas are designed to prepare teachers and other professionals through general and specialized coursework. The coursework requirements for each major are listed in this section of the catalog and include core coursework in Education (EDUC), Family and Consumer Sciences (FCS), and/or related areas of study. Candidates interested in pursuing a degree in the area of Family and Consumer Sciences should contact the Department of Organizational Learning and Performance for additional information.

FCS Courses (p. 567)

Bachelor of Arts in Blended Early Childhood Education

Early Childhood Education Program

The goal of the Early Childhood Education Program is to prepare professionals who have the necessary knowledge, dispositions, and abilities to:

1. enhance learning and development of young children, with and without disabilities, between the ages of birth and third grade.
2. establish collaborative relationships with families and other professionals in ways that produce outcomes for young children.
3. view their own professional development as a lifelong endeavor.
4. advocate for children, families, and the early childhood profession.

The Baccalaureate degree in the Early Childhood Education program is designed to further prepare Early Childhood Education professionals holding either an Associate of Arts (A.A.), Associate of Applied Science (A.A.S.), or Associate of Science (A.S.) in the field of early childhood education. Early Childhood Education is the study and education of young children from birth through third grade.

Candidates holding an Associate's degree in Early Childhood Education pursue a Blended Early Childhood Education/Early Childhood Special Education Certificate. This degree program is competency/field-based and allows candidates the opportunity to apply course work instruction to practical experiences in approved early childhood education centers and private/public school settings for children with or without disabilities.

Candidates interested in pursuing the Blended Early Childhood Education degree are advised to contact the Advising Coordinator in the COE Student Advising Center for general information and program advisement.

Summary of Requirements for a Bachelor of Arts degree in Blended Early Childhood Education

1. Completion of an Associate's Degree in Early Childhood Education from an accredited institution of higher learning. NOTE: Those holding the A.A.S. should check with the Advising Coordinator in the COE Student Advising Center to determine whether additional general education credits are required for graduation.

2. Completion of a major in Early Childhood Education at the Associate level including required education and special education coursework for the Early Childhood Education major.

Required coursework:

Code	Title	Credits
EDUC 2204	Families Community Culture (Satisfies General Education Objective 9) ¹	3
EDUC 3302	Motivation and Management	3
EDUC 3308	Foundations of Educational Knowledge, Planning, and Assessment	3
EDUC 3311	Instructional Technology	3
EDUC 3321	Integrated Language Arts Methods	3
EDUC 3322	Literature for Children across the Curriculum	3
EDUC 3330	Elementary Math Methods	3
EDUC 3331	Science Methods for Teachers	3
EDUC 4408	Pre-Internship Field Experience Seminar	3
EDUC 4419	Developmental Literacy	3
MATH 2256	Structure of Arithmetic for Elementary School Teachers	3
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3
FCS 4493	Early Childhood Education: Student Teaching Internship	12
SPED 3330	The Exceptional Child	3
SPED 4424	Assessment Procedures in Special Education	3
SPED 4429	Teaching Students with Significant and Multiple Disabilities	3
SPED 4443	Teaching Students with Autism Spectrum Disorder	3

¹ or equivalent

Bachelor of Science in General Family and Consumer Sciences

The goal of Family and Consumer Sciences is to prepare individuals for family life, work life, and careers in Family and Consumer Sciences by providing opportunities to develop the knowledge, skills, attitudes, and behaviors needed in a diverse global society. Our unique focus is on families, work, and their interrelationships. The program intends:

1. To empower the Family and Consumer Sciences practitioner to make unique contributions to diverse and ever evolving educational, community, and business contexts.
2. To produce Family and Consumer Sciences graduates who will be proficient in the delivery of their subject areas and in subject matter knowledge, as

well as those research strategies, which can be used to evaluate curriculum effectiveness.

The Bachelor of Science degree in General Family and Consumer Sciences is designed to provide a strong generalist background in all the content areas included in FCS: Child Development, Family Relations, Clothing and Textiles, Nutrition and Foods, Housing/Interior Design, Consumer Economics, and Management. This degree offers a broad-based curriculum to prepare candidates for a variety of employment settings and non-paid work. FCS is a unique

profession whose vision “empowers individuals and families across the lifespan to manage the challenges of living and working in a diverse global society.”

Summary of Requirements for a Bachelor of Science Degree in General Family and Consumer Sciences

Required Courses

Required courses must be taken in the recommended sequence. The candidate must work closely with a Family and Consumer Sciences advisor as early as possible in the program.

Family and Consumer Sciences Coursework

Code	Title	Credits
FCS 1100	Family and Consumer Sciences Professions	1
FCS 2209	Early Childhood Environments	3
FCS 2229	Textile Products	3
FCS 3314	Interior Design and Housing	3
FCS 3332	Programs in Family and Consumer Sciences	3
FCS 4429	Social and Psychological Aspects of Clothing	3
FCS 4431	Family Resource Management	3
FCS 4435	Relationships within Families	3
FCS 4470	Consumer Economics	3
EDUC 2201	Development and Individual Differences	3

EDUC 2204	Families Community Culture	3
NTD 2205 & 2205L	Foods and Meal Management and Foods and Meal Management Lab	4
NTD 2239	Nutrition	3
Total Credits		38

Recommended Electives

Code	Title	Credits
FCS 4471	Advanced Consumer Economics	3
FCS 4472	Teaching Consumer Economics	1-3
FCS 4494	Partnerships with Professionals	3-6
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
NTD 3312 & 3312L	Quantity Foods and Quantity Foods Laboratory	4
NTD 4439	Sports Nutrition	3
CTE 4444	Career Guidance and Special Needs Career and Technical Education	3

Minor Coursework

Majors in General Family and Consumer Sciences must have a minor outside the Family and Consumer Sciences program area. The candidate must work closely with a Family and Consumer Sciences advisor concerning selection of this minor. Once the minor is determined, candidates should be advised within the department of the minor emphasis.

Minor in Consumer Economics

Candidates receiving degrees in majors other than Family and Consumer Sciences may satisfy the requirements for a minor in Consumer Economics. Candidates interested in this minor should consult a Family and Consumer Sciences advisor.

Required Courses:

Code	Title	Credits
FCS 4431	Family Resource Management	3
FCS 4470	Consumer Economics	3
FCS 4471	Advanced Consumer Economics	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3

Select TWO of the following:		6
ACCT 2201	Principles of Accounting I	
ACCT 2202	Principles of Accounting II	
FCS 4472	Teaching Consumer Economics	
ECON 3323	Economic History	
ECON 4438	Public Finance	
MGT 2261	Legal Environment of Organizations	
MGT 4461	Business Law	
MKTG 2225	Basic Marketing Management	
MKTG 4427	Consumer Behavior	

This is a non-certification program; please consult an advisor.

Minor in Family and Consumer Sciences

Code	Title	Credits
FCS 3314	Interior Design and Housing	3
FCS 3332	Programs in Family and Consumer Sciences	3
FCS 4429	Social and Psychological Aspects of Clothing	3
FCS 4431	Family Resource Management	3
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3

NTD 2205 & 2205L	Foods and Meal Management and Foods and Meal Management Lab	4
Select ONE course from the following:		3
FCS 2209	Early Childhood Environments	
FCS 2229	Textile Products	
FCS 4435	Relationships within Families	
FCS 4470	Consumer Economics	
NTD 2239	Nutrition	

This is a non-certification program; please consult an advisor.

Family and Consumer Sciences 45 Credit Endorsement

The Family and Consumer Sciences Education major is designed to prepare beginning teachers with a strong background in all areas of Family and Consumer Sciences endorsement on a secondary teaching credential. In addition to the required major coursework, candidates must also complete the Professional Education Core (p. 230) coursework. Candidates must also have accumulated two (2) years (4,000 clock hours) of related work experience or shall have completed an approved practicum in their field of specialization.

It is recommended that a candidate complete the Family and Consumer Sciences Education major and a supporting teaching minor such as Consumer Economics, Health or Natural Science.

Summary of Requirements for a Bachelor of Science Degree in Secondary Education with a Major in Family and Consumer Sciences Education

Required Courses

Required courses must be taken in the recommended sequence. The candidate must work closely with a Family and Consumer Sciences Education advisor as early as possible in the program.

Code	Title	Credits
FCS 1100	Family and Consumer Sciences Professions	1
FCS 2209	Early Childhood Environments	3
FCS 2229	Textile Products	3
FCS 3314	Interior Design and Housing	3
FCS 3332	Programs in Family and Consumer Sciences	3
FCS 4429	Social and Psychological Aspects of Clothing	3
FCS 4431	Family Resource Management	3
FCS 4435	Relationships within Families	3
FCS 4470	Consumer Economics	3
BED 3341	Leadership and Advising in Career Technical Student Organizations I	1
BED 3342	Leadership and Advising in Career Technical Student Organizations II	1
BED 3343	Leadership and Advising in Career Technical Student Organizations III	1
CTE 4401	Foundations of Career and Technical Education	3
NTD 2205	Foods and Meal Management	3
NTD 2205L	Foods and Meal Management Lab	1
NTD 2239	Nutrition	3

Recommended Electives

Code	Title	Credits
Select seven (7) credits from the following:		
FCS 4471	Advanced Consumer Economics	3
FCS 4472	Teaching Consumer Economics	1-3
FCS 4494	Partnerships with Professionals	3-6

BED 3343	Leadership and Advising in Career Technical Student Organizations III (repeatable)	1
CTE 4402	Analysis and Course Construction	3
CTE 4403	Methods of Teaching in Career and Technical Education	3
CTE 4444	Career Guidance and Special Needs Career and Technical Education	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
NTD 3312 & 3312L	Quantity Foods and Quantity Foods Laboratory	4
NTD 3360	Nutrition Through the Lifecycle	3
NTD 4439	Sports Nutrition	3
OLP 4405	Learning Fundamentals	3
OLP 4409	Professional Readings and Writing in Human Resource Development	3

Elementary Education

Program Description	Type	Degree
Elementary Education, B.A./B.S. (p. 225)	Degree	B.A./B.S.
Biological Sciences, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
Earth Sciences/Geology, 20 Credit Endorsement (p. 238)	20 Credit Endorsement	
English, 20 Credit Endorsement (p. 226)	20 Credit Endorsement	
English as a Second Language (ESL), 20 Credit Endorsement (p. 237)	20 Credit Endorsement	
History, 20 Credit Endorsement (p. 241)	20 Credit Endorsement	
Mathematics, 20 Credit Endorsement (p. 243)	20 Credit Endorsement	

Special Education, 20 Credit Endorsement (p. 227)	20 Credit Endorsement
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The emerging elementary education professional is expected to:

1. Select General Education Objective (p. 57) courses that support the cognitive knowledge and skill requirements of an elementary teacher, including a study of the state's history.
2. Have subject matter knowledge in social science, language arts, science, mathematics, or language. He/she must utilize this knowledge in specific applications and assessments within the educational methods curriculum.
3. Be aware of the theories related to cognitive and physical child development, classroom management and motivation, lesson planning, instructional delivery, technology classroom integration, and assessment.
4. Participate in diverse early and extended field experiences, where their lesson planning, instructional delivery, and assessment can be externally evaluated.

Bachelor of Arts or Bachelor of Science in Elementary Education

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science Degree in Elementary Education

1. All Elementary Education majors will complete the General Education Requirements (p. 57) for a Bachelor's degree, completing all General Education Objectives, plus any additional elective Objective courses required to bring their total to a minimum of 36 credits.
2. Completion of a major in Elementary Education includes:
 - a. the Professional Education Core;
 - b. the Elementary Education-required courses; and
 - c. one Emphasis Area (Biology, Earth Sciences, English, English as a Second Language, History, Mathematics, or Special Education) chosen from the fields listed under Elementary Education Emphasis Areas.

The Professional Education Core

Some of these courses are required to be taken before entering the Teacher Education Program (please read course descriptions for prerequisites and corequisites).

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 3302	Motivation and Management	3
EDUC 3308	Foundations of Educational Knowledge, Planning, and Assessment	3
EDUC 3311	Instructional Technology	3
SPED 3350	Creating Inclusive Classrooms	3
EDUC 4408	Pre-Internship Field Experience Seminar	3

Either

EDUC 4494	Elementary Education Student Teaching Internship (Except for Special Ed students)	12
or (For Special Education students)		
EDUC 4494	Elementary Education Student Teaching Internship	6
and		
SPED 4495	Special Education:Student Teaching Internship	6

Elementary Education Required Courses

Code	Title	Credits
EDUC 3321	Integrated Language Arts Methods	3
EDUC 3322	Literature for Children across the Curriculum	3
EDUC 3330	Elementary Math Methods	3
EDUC 3331	Science Methods for Teachers	3
EDUC 3336	Social Science Methods	3
EDUC 4419	Developmental Literacy	3
MATH 2256	Structure of Arithmetic for Elementary School Teachers	3
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3
Select two (2) of the following:		2-5
EDUC 2235	Introduction to Elementary Art Methods and Materials	
HE 2211	Health Education Methods Elementary	
MUSC 2233	Music Methods for Elementary Teachers	
PE 3357	Methods of Teaching Elementary Physical Education	

Biological Sciences 20 Credit Endorsement

Code	Title	Credits			
BIOL 1101 & 1101L	Biology I and Biology I Lab	4	BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4	or BIOL 2228 & 2228L	Human Anatomy and Physiology 2 and Human Anatomy and Physiology 2 Lab	
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4	BIOL 4413 or EDUC 3331	Biology Teaching Methods Science Methods for Teachers	3
			CHEM 1101	Introduction to Chemistry	3

Earth Sciences Concentration

Code	Title	Credits			
EDUC 3331	Science Methods for Teachers	3	GEOL 1107	Real Monsters	3
GEOL 1100 & 1100L	The Dynamic Earth and The Dynamic Earth Lab	4	GEOL 2204	Fluid Earth	4
OR			GEOL 2205	Solid Earth	4
GEOL 1101 & 1101L	Physical Geology and Physical Geology Lab		GEOL 4410	Science in American Society	2
			PHYS 1152	Descriptive Astronomy	3

English 20 Credit Endorsement

Code	Title	Credits			
ENGL 2211	Introduction to Literary Analysis	3	or ENGL 2281	Introduction to Language Studies	
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	3	ENGL 4431	Teaching and Writing Projects Special Topics	3
or ENGL 2268	Survey of British Literature II 19th Century to Present		One ENGL 33XX or ENGL 44XX class		3
ENGL 2277	Survey of American Literature I Beginnings to 1860	3	Select ONE of the following:		3
or ENGL 2278	Survey of American Literature II 1860 to Present		ENGL 3327	Special Topics in Genre	
ENGL 2280	Grammar and Usage	3	ENGL 3356	Ethnicity in Literature	
			ENGL 4407	Topics in Professional Writing	
			ENGL 4433	Methods Teaching English	

English as a Second Language (ESL) Concentration

Code	Title	Credits			
Foreign Language		4	or ENGL 4480 or ENGL 4481	Varieties of American English Studies In Grammar	
ANTH/ENGL/LANG 1107	Nature of Language	3	EDUC 2204	Families Community Culture	3
or ENGL 2280	Grammar and Usage		EDUC 4460	Foundations of ESL	3
or ENGL 2281	Introduction to Language Studies		EDUC 4463	ESL Methods	3
ANTH 4450	Sociolinguistics	3	EDUC 4464	ESL Practicum	1
or ANTH 4455	Phonetics				

History Concentration

Code	Title	Credits			
U.S. History		9	Choose 6 credits of upper division U.S. History from the following:		
HIST 4418	United States History for Teachers		HIST 3307	Early North America	
			HIST 3308	Industrialization and Reform in the United States	

HIST 3309	Modern United States
HIST 4420	Topics in U.S. History
HIST 4421	Federal Indian Relations
HIST 4423	Idaho History
HIST 4425	Women in the North American West
HIST 4427	American West
HIST 4432	U.S. Environmental History
HIST 4433	History of Energy
HIST 4465	US Political History

World Regions 6

Choose one of the following:

HIST 1105	Foundations of Europe (Partially satisfies General Education Objective 6.)
HIST 1106	Modern Europe (Partially satisfies General Education Objective 6.)

Choose 3 credits of the following:

HIST 1100	History in Film (Satisfies General Education Objective 7.)
HIST 1101	World History I (Partially satisfies General Education Objective 6.)
HIST 1102	World History II (Partially satisfies General Education Objective 6.)
HIST 2221	Ancient World
HIST 2241	History of World Religions
HIST 2251	Latin American History and Culture (Satisfies General Education Objective 9.)
HIST 2252	East Asian History (Satisfies General Education Objective 9.)
HIST 2254	Middle East History and Culture (Satisfies General Education Objective 9.)
HIST 2255	African History and Culture (Satisfies General Education Objective 9.)

Upper Division World, Comparative and non-U.S. History 6

Choose 6 credits from the following:

HIST 3318	History of Christianity
HIST 3322	Religious Reformation and Conflict
HIST 3323	French Revolution and the Napoleonic Legacy
HIST 3325	Early Modern Europe
HIST 3326	Twentieth Century Europe
HIST 3327	World War I and Its Legacy
HIST 3350	Spain in the Early Modern World
HIST 3354	Modern Middle East
HIST 3355	Slavery in History
HIST 3376	Foodways in History
HIST 4405	Problems in History
HIST 4429	Foreign Relations since 1900
HIST 4430	Global Environmental History
HIST 4431	Topics in Global History
HIST 4435	History of Colonialism
HIST 4437	Families in Former Times
HIST 4439	Women in World History
HIST 4440	History of Revolutions
HIST 4443	Topics in European History
HIST 4445	Modern Ireland
HIST 4446	Topics in Ancient History and Culture
HIST 4448	Topics in Medieval History and Culture
HIST 4451	Topics in Latin American History and Culture
HIST 4452	Topics in Asian History and Culture
HIST 4454	Topics in Middle East History and Culture
HIST 4474	Islam in the Modern World
HIST 4478	History of Empires
HIST 4479	History of Disease, Medicine, and Society

Total Credits 21

Mathematics Concentration

Code	Title	Credits			
EDUC 4470	Advanced Mathematics Methods	3	MATH 1187	Applied Discrete Structures	3
MATH 1144	Trigonometry	2-5	or MATH 2287	Foundations of Mathematics	
or MATH 1147	College Algebra and Trigonometry		MATH 2240	Linear Algebra	3
MATH 1170	Calculus I	4	MATH 3343	Modern Geometry I	3
MATH 1175	Calculus II	4	MATH 3352	Introduction to Probability	3

Special Education 20 Credit Endorsement

Code	Title	Credits			
Core Courses					
SPED 3330	The Exceptional Child	3	SPED 4424	Assessment Procedures in Special Education	3
SPED 3340	Principles of Behavior Management	3	SPED 4429	Teaching Students with Significant and Multiple Disabilities	3
SPED 4423	Designing Instruction	3	SPED 4434	Language and Communication Methods in Special Education	3
			or CSD 3335	Language Development and Disorders	

SPED 4443	Teaching Students with Autism Spectrum Disorder	3	Practicum/Student Teaching Courses	
			SPED 4435	Practicum in Small Group Instruction
SPED 4446	Secondary Special Education	3		

Elementary Education, Standard Certification Only

Requirements

1. Completion of the Professional Education Core:

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 3302	Motivation and Management	3
EDUC 3308	Foundations of Educational Knowledge, Planning, and Assessment	3
EDUC 3311	Instructional Technology	3
SPED 3350	Creating Inclusive Classrooms	3
EDUC 4408	Pre-Internship Field Experience Seminar	3
EDUC 4494	Elementary Education Student Teaching Internship	12

2. Completion of the Elementary Education Professional Courses:

Code	Title	Credits
EDUC 3321	Integrated Language Arts Methods	3
EDUC 3322	Literature for Children across the Curriculum	3
EDUC 3330	Elementary Math Methods	3
EDUC 3331	Science Methods for Teachers	3
EDUC 3336	Social Science Methods	3
EDUC 4419	Developmental Literacy	3
MATH 2256	Structure of Arithmetic for Elementary School Teachers	3
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3
Select two (2) of the following:		2-5
EDUC 2235	Introduction to Elementary Art Methods and Materials	
HE 2211	Health Education Methods Elementary	
MUSC 2233	Music Methods for Elementary Teachers	
PE 3357	Methods of Teaching Elementary Physical Education	

Secondary Education

Program Description	Type	Degree		
Secondary Education, B.A./B.S. (p. 230)	Degree	B.A./B.S.	French, 30 Credit Endorsement (p. 238)	30 Credit Endorsement
Music Education, B.M.E. (p. 155)	Degree	B.M.E.	Geology, 20 Credit Endorsement (p. 238)	20 Credit Endorsement
American Government, 20 Credit Endorsement (p. 231)	20 Credit Endorsement		Geology, 30 Credit Endorsement (p. 239)	30 Credit Endorsement
American Government, 30 Credit Endorsement (p. 231)	30 Credit Endorsement		Geology, 45 Credit Endorsement (p. 239)	45 Credit Endorsement
Art, 45 Credit Endorsement (p. 231)	45 Credit Endorsement		German, 20 Credit Endorsement (p. 239)	20 Credit Endorsement
Biological Sciences, 20 Credit Endorsement (p. 226)	20 Credit Endorsement		German, 30 Credit Endorsement (p. 240)	30 Credit Endorsement
Biological Sciences, 30 Credit Endorsement (p. 231)	30 Credit Endorsement		Health Education Teaching, 20 Credit Endorsement (p. 240)	20 Credit Endorsement
Biological Sciences, 45 Credit Endorsement (p. 232)	45 Credit Endorsement		Health Education Teaching, 30 Credit Endorsement (p. 240)	30 Credit Endorsement
Business Education, 20 Credit Endorsement (p. 232)	20 Credit Endorsement		Health Education, 45 Credit Endorsement (p. 240)	45 Credit Endorsement
Business Education, 30 Credit Endorsement (p. 232)	30 Credit Endorsement		History, 20 Credit Endorsement (p. 241)	20 Credit Endorsement
Business Technology, 45 Credit Endorsement (p. 233)	45 Credit Endorsement		History, 30 Credit Endorsement (p. 242)	30 Credit Endorsement
Chemistry, 20 Credit Endorsement (p. 233)	20 Credit Endorsement		Journalism, 20 Credit Endorsement (p. 243)	20 Credit Endorsement
Chemistry, 30 Credit Endorsement (p. 234)	30 Credit Endorsement		Mathematics, 20 Credit Endorsement (p. 243)	20 Credit Endorsement
Chemistry, 45 Credit Endorsement (p. 234)	45 Credit Endorsement		Mathematics, 30 Credit Endorsement (p. 243)	30 Credit Endorsement
Communication, 20 Credit Endorsement (p. 234)	20 Credit Endorsement		Mathematics, 45 Credit Endorsement (p. 243)	45 Credit Endorsement
Communication, 30 Credit Endorsement (p. 234)	30 Credit Endorsement		Physical Education, 45 Credit Endorsement (p. 243)	45 Credit Endorsement
Communication, 45 Credit Endorsement (p. 234)	45 Credit Endorsement		Physics, 20 Credit Endorsement (p. 244)	20 Credit Endorsement
Drama, 20 Credit Endorsement (p. 235)	20 Credit Endorsement		Physics, 30 Credit Endorsement (p. 244)	30 Credit Endorsement
Drama, 30 Credit Endorsement (p. 235)	30 Credit Endorsement		Social Studies, 30 Credit Endorsement (p. 244)	30 Credit Endorsement
Drama, 45 Credit Endorsement (p. 235)	45 Credit Endorsement		Spanish, 20 Credit Endorsement (p. 245)	20 Credit Endorsement
Economics, 20 Credit Endorsement (p. 236)	20 Credit Endorsement		Spanish, 30 Credit Endorsement (p. 245)	30 Credit Endorsement
Economics, 30 Credit Endorsement (p. 236)	30 Credit Endorsement			
English, 30 Credit Endorsement (p. 236)	30 Credit Endorsement			
English, 45 Credit Endorsement (p. 236)	45 Credit Endorsement			
English as a Second Language (ESL), 20 Credit Endorsement (p. 237)	20 Credit Endorsement			
Family and Consumer Sciences, 45 Credit Endorsement (p. 224)	45 Credit Endorsement			
French, 20 Credit Endorsement (p. 238)	20 Credit Endorsement			

The Secondary Education program aligns with the College of Education Core Standards of Teacher Education and the Conceptual Framework. In addition, the program graduates teachers who exemplify the following guiding principles. The Secondary Educator:

1. Is a content area expert able to represent subject matter in multiple ways to ensure depth of student understanding.
2. Ensures curriculum alignment with state and national student achievement standards.

3. Uses all appropriate tools and techniques of teaching to guide and assess student learning.
4. Provides consistent opportunities for all students to learn and adapts instruction to meet the needs of diverse learners.
5. Fosters family and community relationships that promote student learning.

Bachelor of Arts or Bachelor of Science in Secondary Education

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science degree in Secondary Education:

1. Completion of University's General Education Requirements (see General Education Requirements (p. 57) and Applying to Graduate (p. 82) in the Academic Information section of this catalog).
2. Completion of a subject teaching endorsement of at least 30 semester credit hours as recommended by the subject department and approved by the College of Education, and completion of a subject teaching endorsement of at least 20 semester credit hours as recommended by the subject department and approved by the College of Education, OR completion of a single subject teaching endorsement of at least 45 semester credit hours as recommended by the subject department and approved by the College of Education.
3. Completion of the Professional Education Core, and the Required Secondary Education Course, listed below.

Professional Education Core

Some of these courses are required to be taken before entering the Teacher Education Program.

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 3302	Motivation and Management	3
EDUC 3308	Foundations of Educational Knowledge, Planning, and Assessment	3
EDUC 3311	Instructional Technology	3
SPED 3350	Creating Inclusive Classrooms	3
EDUC 4408	Pre-Internship Field Experience Seminar	3
EDUC 4496	Secondary Education Student Teaching Internship	12

Required Secondary Education Course

Code	Title	Credits
EDUC 4401	Content Area Literacy	3

American Government 20 Credit Endorsement

Code	Title	Credits			
HIST 1118	US History and Culture	3	POLS 4403	The Presidency	3
HIST 4418	United States History for Teachers	3	or POLS 4404	The Legislative Process	
POLS 1101	American National Government	3	Select ONE of the following:		
POLS 3313	Introduction to Political Philosophy	3	POLS 4401	Political Parties and Groups	3
POLS 3331	Comparative Politics Framework for Analysis	3	POLS 4427	Voting and Public Opinion	
			POLS 4443	Civil Rights and Liberties	

American Government 30 Credit Endorsement

Code	Title	Credits			
Credits selected from the Political Science core curriculum (excluding POLS 4460) ¹		24	HIST 1118	US History and Culture	3
			HIST 4418	United States History for Teachers	3

¹ Political Science core curriculum courses are listed in the Political Science (p.) section within the College of Arts and Letters.

Art 45 Credit Endorsement

Code	Title	Credits			
ART 1100	Introduction to Art (Partially Satisfies General Education Objective 4)	3	ART 1103	Creative Process	3
ART 1101	Survey of Art History I (Partially Satisfies General Education Objective 4)	3	ART 1104	Creative Process	3
ART 1102	Survey of Art History II (Partially Satisfies General Education Objective 4)	3	ART 1105	Drawing I	3
			ART/EDUC 3334	Secondary Art School Methods	3
			Approved electives in Art		24

Biological Sciences 20 Credit Endorsement

Code	Title	Credits			
BIOL 1101 & 1101L	Biology I and Biology I Lab	4	BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4	or BIOL 2228 & 2228L	Human Anatomy and Physiology 2 and Human Anatomy and Physiology 2 Lab	
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4	BIOL 4413	Biology Teaching Methods	3
			or EDUC 3331	Science Methods for Teachers	
			CHEM 1101	Introduction to Chemistry	3

Biological Sciences 30 Credit Endorsement

Code	Title	Credits			
BIOL 1101 & 1101L	Biology I and Biology I Lab	4	BIOL 4413	Biology Teaching Methods	3
BIOL 1102 & 1102L	Biology II and Biology II Lab	4	or EDUC 3331	Science Methods for Teachers	
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory ¹	4	CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4	CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
			MATH 1160	Survey of Calculus	3
			or MATH 1153	Statistical Reasoning	

Biological Science 45 Credit Endorsement

Code	Title	Credits			
MATH 1160 or MATH 1153	Survey of Calculus Statistical Reasoning	3	BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
BIOL 1101 & 1101L	Biology I and Biology I Lab	4	or BIOL 2228 & 2228L	Human Anatomy and Physiology 2 and Human Anatomy and Physiology 2 Lab	
BIOL 1102 & 1102L	Biology II and Biology II Lab	4	BIOL 3358	Genetics	3
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory ¹	4	BIOL 4413	Biology Teaching Methods	3
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4	or EDUC 3331	Science Methods for Teachers	
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4	BIOL 4417	Organic Evolution	3
			CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
			CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4

Business Education 20 Credit Endorsement

Code	Title	Credits			
Select one of the following:		3	BED 3342	Leadership and Advising in Career Technical Student Organizations II	1
ACCT 2201	Principles of Accounting I		BED 3343	Leadership and Advising in Career Technical Student Organizations III	1
ACCT 3303	Accounting Concepts		BT 0144	Business Document Processing	3
BT 0120	Basic Accounting		CTE 4401	Foundations of Career and Technical Education	3
BT 0147	Accounting Applications		ENGL 3308	Business Communications	3
BT 0148	Payroll Procedures		Select one of the following:		3
BT 0171	Computerized Accounting		ECON 2201	Principles of Macroeconomics	
BED 3332	Methods in Business Education	3	ECON 2202	Principles of Microeconomics	
BED 3341	Leadership and Advising in Career Technical Student Organizations I	1	FCS 4470	Consumer Economics	

Business Education 30 Credit Endorsement

Code	Title	Credits			
Select one of the following:		3	Select one of the following:		3
ACCT 2201	Principles of Accounting I		ECON 2201	Principles of Macroeconomics	
ACCT 3303	Accounting Concepts		ECON 2202	Principles of Microeconomics	
BT 0120	Basic Accounting ¹		FCS 4470	Consumer Economics	
BT 0147	Accounting Applications ¹		Select 9 credits from recommended and approved courses.		9
BT 0148	Payroll Procedures ¹		Recommended and Approved Courses:		
BT 0171	Computerized Accounting ¹		Code	Title	Credits
BED 3332	Methods in Business Education	3	ACCT 2202	Principles of Accounting II	3
BED 3341	Leadership and Advising in Career Technical Student Organizations I	1	BA 1110	The World of Business	3
BED 3342	Leadership and Advising in Career Technical Student Organizations II	1	BED 4485	Independent Study in Business Education	1-3
BED 3343	Leadership and Advising in Career Technical Student Organizations III	1	CMP 2202	Photo, Graphic, and Video Editing	3
BT 0144	Business Document Processing ¹	3	CMP 2231	Introduction to Graphic Design	3
CTE 4401	Foundations of Career and Technical Education	3	CMP 2261	Introduction to Advertising	3
ENGL 3308	Business Communications	3	COUN 1150	Career and Life Planning	1
			CTE 4402	Analysis and Course Construction	3
			CTE 4403	Methods of Teaching in Career and Technical Education	3

ECON 1100	Economic Issues	3
ECON 2202	Principles of Microeconomics	3
ECON 3301	Macroeconomic Theory	3
ECON 3302	Microeconomic Theory	3
ECON 3323	Economic History	3
ECON 4431	Money and Banking	3
FCS 4470	Consumer Economics	3
FIN 1115	Personal Finance	3
FIN 3303	Financial Concepts	3
INFO 1110	Web Development: Essentials	3

INFO 3301	Introduction to Informatics and Analytics	3
INFO 3303	Informatics Concepts	3
INFO 4430	Web Application Development	3
MGT 2261	Legal Environment of Organizations	3
MGT 3303	Management Concepts	3
MGT 3312	Individual and Organizational Behavior	3
MGT 4462	Issues in Business and Society	3

¹ Note that only eight (8) BT credits can be applied toward your degree.

Business Technology 45 Credit Endorsement

Code	Title	Credits
Select one of the following:		3
ACCT 2201	Principles of Accounting I	
ACCT 3303	Accounting Concepts	
BT 0120	Basic Accounting	
BT 0147	Accounting Applications	
BT 0148	Payroll Procedures	
BT 0171	Computerized Accounting	
BED 3332	Methods in Business Education	3
BED 3341	Leadership and Advising in Career Technical Student Organizations I	1
BED 3342	Leadership and Advising in Career Technical Student Organizations II	1
BED 3343	Leadership and Advising in Career Technical Student Organizations III	1
BT 0144	Business Document Processing ¹	3
CMP 2231	Introduction to Graphic Design	3
CTE 4401	Foundations of Career and Technical Education	3
ENGL 3308	Business Communications	3
Select two of the following:		6
ECON 2201	Principles of Macroeconomics	
ECON 2202	Principles of Microeconomics	
FCS 4470	Consumer Economics	
Select 18 credits from recommended and approved courses.		18
Total Credits		45

Recommended and Approved Courses:

Code	Title	Credits
ACCT 2202	Principles of Accounting II	3
BA 1110	The World of Business	3
BED 4485	Independent Study in Business Education	1-3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2261	Introduction to Advertising	3
COUN 1150	Career and Life Planning	1
CTE 4402	Analysis and Course Construction	3
CTE 4403	Methods of Teaching in Career and Technical Education	3
ECON 1100	Economic Issues	3
ECON 2202	Principles of Microeconomics	3
ECON 3301	Macroeconomic Theory	3
ECON 3302	Microeconomic Theory	3
ECON 3323	Economic History	3
ECON 4431	Money and Banking	3
FCS 4470	Consumer Economics	3
FIN 1115	Personal Finance	3
FIN 3303	Financial Concepts	3
INFO 1110	Web Development: Essentials	3
INFO 3301	Introduction to Informatics and Analytics	3
INFO 3303	Informatics Concepts	3
INFO 4430	Web Application Development	3
MGT 2261	Legal Environment of Organizations	3
MGT 3303	Management Concepts	3
MGT 3312	Individual and Organizational Behavior	3
MGT 4462	Issues in Business and Society	3

Chemistry 20 Credit Endorsement

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4

CHEM 2211	Inorganic Chemistry I	3
CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 4400	Practicum in Physical Science	2
Approved electives in Chemistry		7

Chemistry 30 Credit Endorsement

Code	Title	Credits			
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5	CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4	CHEM 3331	Instrumental Analysis	2
CHEM 2211	Inorganic Chemistry I	3	CHEM 3334	Instrumental Analysis Laboratory	2
CHEM 2232	Quantitative Analysis	2	CHEM 3341	Topics in Physical Chemistry I	3
CHEM 2234	Quantitative Analysis Laboratory	2	CHEM 3342	Topics in Physical Chemistry II	3
CHEM 3301	Organic Chemistry I	3	CHEM 4400	Practicum in Physical Science	2
			Approved electives in Chemistry		7

Chemistry 45 Credit Endorsement

Code	Title	Credits			
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5	CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4	CHEM 3331	Instrumental Analysis	2
CHEM 2211	Inorganic Chemistry I	3	CHEM 3334	Instrumental Analysis Laboratory	2
CHEM 2232	Quantitative Analysis	2	CHEM 3341	Topics in Physical Chemistry I	3
CHEM 2234	Quantitative Analysis Laboratory	2	CHEM 3342	Topics in Physical Chemistry II	3
CHEM 3301	Organic Chemistry I	3	CHEM 4400	Practicum in Physical Science	2
			Approved electives in Chemistry		7

Communication 20 Credit Endorsement

Code	Title	Credits			
CMP 2205	Argumentation	3	CMP 4487	Rhetorical Theory	3
CMP 2286	Visual Rhetoric	3	CMP 4488	Rhetorical Criticism	3
CMP 3308	Groups and Communication	3	THEA 3331	Materials and Methods for High School Speech Arts	3
CMP 4404	Gender and Communication	3			

Communication 30 Credit Endorsement

Code	Title	Credits			
CMP 2202	Photo, Graphic, and Video Editing	3	CMP 4488	Rhetorical Criticism	3
CMP 2205	Argumentation	3	THEA 1111	Stagecraft	3
CMP 2286	Visual Rhetoric	3	THEA 1118	Oral Interpretation of Literature	3
CMP 3308	Groups and Communication	3	THEA 2251	Fundamentals of Acting	3
CMP 4404	Gender and Communication	3	THEA 3331	Materials and Methods for High School Speech Arts	3
CMP 4487	Rhetorical Theory	3			

Communication 45 Credit Endorsement

Code	Title	Credits			
CMP 2202	Photo, Graphic, and Video Editing	3	THEA 2251	Fundamentals of Acting	3
CMP 2205	Argumentation	3	THEA 3331	Materials and Methods for High School Speech Arts	3
CMP 2286	Visual Rhetoric	3	Electives in 4000-level Communication and Rhetorical Studies courses		6
CMP 3308	Groups and Communication	3	Electives (6 credits) selected from:		6
CMP 4404	Gender and Communication	3	THEA 2214	Makeup	
CMP 4487	Rhetorical Theory	3	THEA 2221	Stage Costume Construction	
CMP 4488	Rhetorical Criticism	3	THEA 3304	Stage Management	
THEA 1111	Stagecraft	3	THEA 3312	Stage Lighting Design	
THEA 1118	Oral Interpretation of Literature	3			

Drama 20 Credit Endorsement

Code	Title	Credits		
THEA 1101	Survey of Theatre	3	MUSC 2235	Singing for Actors
THEA 1111	Stagecraft	3	THEA 1121	Script Analysis
THEA 2251	Fundamentals of Acting	3	THEA 3330	Stage Combat
THEA 2252	Intermediate Acting Scene Study	3	THEA 4400	Theatre Background I
THEA 3331	Materials and Methods for High School Speech Arts	3	THEA 4401	Theatre Background II
THEA 1191	Theatre Production	1	THEA 4419	20th Century Theatre
AND / OR			THEA 4420	American Theatre History
THEA 3391	Theatre Production		THEA 4426	Advanced Scene Design
THEA 4455	Beginning Stage Direction		THEA 4431	Advanced Acting Shakespeare
Select ONE of the following:		3	THEA 4432	Advanced Acting Audition Techniques
THEA 2214	Makeup		THEA 4433	Advanced Acting in Musical Theatre
THEA 2221	Stage Costume Construction		THEA 4434	Advanced Acting Realism
THEA 3304	Stage Management		THEA 4456	Advanced Stage Direction
Select ONE of the following:		3	THEA 4465	Musical Theatre History
DANC 1141	Dance for Musical Theatre		THEA 4470	Contemporary Theatre

Drama 30 Credit Endorsement

Code	Title	Credits		
CMP 2205	Argumentation	3	DANC 1141	Dance for Musical Theatre
CMP 3308	Groups and Communication	3	MUSC 2235	Singing for Actors
THEA 1101	Survey of Theatre	3	THEA 1121	Script Analysis
THEA 1111	Stagecraft	3	THEA 3330	Stage Combat
THEA 1191	Theatre Production	1	THEA 4400	Theatre Background I
AND/OR			THEA 4401	Theatre Background II
THEA 3391	Theatre Production		THEA 4419	20th Century Theatre
THEA 2251	Fundamentals of Acting	3	THEA 4420	American Theatre History
THEA 2252	Intermediate Acting Scene Study	3	THEA 4426	Advanced Scene Design
THEA 3331	Materials and Methods for High School Speech Arts	3	THEA 4431	Advanced Acting Shakespeare
THEA 4455	Beginning Stage Direction	3	THEA 4432	Advanced Acting Audition Techniques
Select ONE of the following:		3	THEA 4433	Advanced Acting in Musical Theatre
THEA 2214	Makeup		THEA 4434	Advanced Acting Realism
THEA 2221	Stage Costume Construction		THEA 4456	Advanced Stage Direction
THEA 3304	Stage Management		THEA 4465	Musical Theatre History
Select ONE of the following (minimum of 3 credits):		3	THEA 4470	Contemporary Theatre

Drama 45 Credit Endorsement

Code	Title	Credits		
CMP 2205	Argumentation	3	THEA 2214	Makeup
CMP 3308	Groups and Communication	3	THEA 2221	Stage Costume Construction
THEA 1101	Survey of Theatre	3	THEA 2251	Fundamentals of Acting
THEA 1111	Stagecraft	3	THEA 2252	Intermediate Acting Scene Study
THEA 1191	Theatre Production	1	THEA 3304	Stage Management
AND/OR			THEA 3311	Scene Design
THEA 3391	Theatre Production		THEA 3312	Stage Lighting Design
THEA 2211	Drafting	3	or THEA 4403	Stage Costume Design

THEA 3331	Materials and Methods for High School Speech Arts	3
THEA 4455	Beginning Stage Direction	3
Select ONE of the following:		3
DANC 1141	Dance for Musical Theatre	
MUSC 2235	Singing for Actors	
THEA 1121	Script Analysis	
THEA 3330	Stage Combat	
THEA 4400	Theatre Background I	
THEA 4401	Theatre Background II	
THEA 4419	20th Century Theatre	

THEA 4420	American Theatre History	
THEA 4426	Advanced Scene Design	
THEA 4431	Advanced Acting Shakespeare	
THEA 4432	Advanced Acting Audition Techniques	
THEA 4433	Advanced Acting in Musical Theatre	
THEA 4434	Advanced Acting Realism	
THEA 4456	Advanced Stage Direction	
THEA 4465	Musical Theatre History	
THEA 4470	Contemporary Theatre	

Economics 20 Credit Endorsement

Code	Title	Credits	Code	Title	Credits
ECON 2201	Principles of Macroeconomics	3	ECON 3302	Microeconomic Theory	3
ECON 2202	Principles of Microeconomics	3	ECON 3306	History of Economic Doctrines	3
ECON 3301	Macroeconomic Theory	3	FIN 1115	Personal Finance	3
			Approved electives in Economics		3

Economics 30 Credit Endorsement

Code	Title	Credits	Code	Title	Credits
ECON 2201	Principles of Macroeconomics	3	ECON 3302	Microeconomic Theory	3
ECON 2202	Principles of Microeconomics	3	ECON 3306	History of Economic Doctrines	3
ECON 3301	Macroeconomic Theory	3	FIN 1115	Personal Finance	3
			Approved electives in Economics		12

English 30 Credit Endorsement

Code	Title	Credits	Code	Title	Credits
ENGL 2211	Introduction to Literary Analysis	3	ENGL 2281	Introduction to Language Studies	3
ENGL 2257	Survey of World Literature I Beginnings through 16th Century	3	ENGL 3311	Literary Criticism and Theory	3
or ENGL 2258	Survey of World Literature II 17th Century to Present		ENGL 4433	Methods Teaching English ¹	3
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	3	Select ONE of the following:		3
or ENGL 2268	Survey of British Literature II 19th Century to Present		ENGL 3327	Special Topics in Genre	
ENGL 2277	Survey of American Literature I Beginnings to 1860	3	ENGL 3356	Ethnicity in Literature	
or ENGL 2278	Survey of American Literature II 1860 to Present		ENGL 4407	Topics in Professional Writing	
ENGL 2280	Grammar and Usage	3	ENGL 4431	Teaching and Writing Projects Special Topics	
			Select ONE ENGL 33XX or ENGL 44XX course		3

¹ ENGL 4433 must be completed before Student Teaching Internship.

English 45 Credit Endorsement

Code	Title	Credits	Code	Title	Credits
ENGL 2211	Introduction to Literary Analysis	3	or ENGL 2268	Survey of British Literature II 19th Century to Present	
ENGL 2257	Survey of World Literature I Beginnings through 16th Century	3	ENGL 2277	Survey of American Literature I Beginnings to 1860	3
or ENGL 2258	Survey of World Literature II 17th Century to Present		or ENGL 2278	Survey of American Literature II 1860 to Present	
ENGL 2267	Survey of British Literature I Beginnings through 18th Century	3	ENGL 2280	Grammar and Usage	3
			ENGL 2281	Introduction to Language Studies	3
			ENGL 3311	Literary Criticism and Theory	3

ENGL 3327	Special Topics in Genre	3
ENGL 3356	Ethnicity in Literature	3
ENGL 4407	Topics in Professional Writing	3
ENGL 4431	Teaching and Writing Projects Special Topics	3
ENGL 4433	Methods Teaching English ¹	3
ENGL 4476	Shakespeare	3
or ENGL 4477	Shakespeare in Performance	
Select ONE language studies course:		
ENGL 4480	Varieties of American English	
ENGL 4481	Studies In Grammar	
ENGL 4484	Rotating Topics in Linguistics	
ENGL 4486	Old English	
ENGL 4487	History of the English Language	
ENGL 4488	Introduction to Sociolinguistics	

Select ONE of the following Pre-1800 Period or Major Figures Courses: 3

ENGL 4461	Studies in Classical Literature
ENGL 4462	Studies in Medieval Literature
ENGL 4463	Studies in Renaissance Literature
ENGL 4464	Studies in Seventeenth Century Literature
ENGL 4465	Studies in Eighteenth Century Literature
ENGL 4472	Proseminar in a Major Literary Figure
ENGL 4473	Chaucer
ENGL 4474	Milton

¹ ENGL 4433 must be completed before Student Teaching Internship.

English as a Second Language (ESL) 20 Credit Endorsement

Code	Title	Credits	or ENGL 4480	Varieties of American English
Foreign Language		4	or ENGL 4481	Studies In Grammar
ANTH/ENGL/LANG 1107	Nature of Language	3	EDUC 2204	Families Community Culture
or ENGL 2280	Grammar and Usage		EDUC 4460	Foundations of ESL
or ENGL 2281	Introduction to Language Studies		EDUC 4463	ESL Methods
ANTH 4450	Sociolinguistics	3	EDUC 4464	ESL Practicum
or ANTH 4455	Phonetics			

Family and Consumer Sciences 45 Credit Endorsement

The Family and Consumer Sciences Education major is designed to prepare beginning teachers with a strong background in all areas of Family and Consumer Sciences endorsement on a secondary teaching credential. In addition to the required major coursework, candidates must also complete the Professional Education Core (p. 230) coursework. Candidates must also have accumulated two (2) years (4,000 clock hours) of related work experience or shall have completed an approved practicum in their field of specialization.

It is recommended that a candidate complete the Family and Consumer Sciences Education major and a supporting teaching minor such as Consumer Economics, Health or Natural Science.

Summary of Requirements for a Bachelor of Science Degree in Secondary Education with a Major in Family and Consumer Sciences Education

Required Courses

Required courses must be taken in the recommended sequence. The candidate must work closely with a Family and Consumer Sciences Education advisor as early as possible in the program.

Code	Title	Credits
FCS 1100	Family and Consumer Sciences Professions	1

FCS 2209	Early Childhood Environments	3
FCS 2229	Textile Products	3
FCS 3314	Interior Design and Housing	3
FCS 3332	Programs in Family and Consumer Sciences	3
FCS 4429	Social and Psychological Aspects of Clothing	3
FCS 4431	Family Resource Management	3
FCS 4435	Relationships within Families	3
FCS 4470	Consumer Economics	3
BED 3341	Leadership and Advising in Career Technical Student Organizations I	1
BED 3342	Leadership and Advising in Career Technical Student Organizations II	1
BED 3343	Leadership and Advising in Career Technical Student Organizations III	1
CTE 4401	Foundations of Career and Technical Education	3
NTD 2205	Foods and Meal Management	3
NTD 2205L	Foods and Meal Management Lab	1
NTD 2239	Nutrition	3

Recommended Electives

Code	Title	Credits
Select seven (7) credits from the following:		
FCS 4471	Advanced Consumer Economics	3
FCS 4472	Teaching Consumer Economics	1-3
FCS 4494	Partnerships with Professionals	3-6
BED 3343	Leadership and Advising in Career Technical Student Organizations III (repeatable)	1
CTE 4402	Analysis and Course Construction	3
CTE 4403	Methods of Teaching in Career and Technical Education	3

CTE 4444	Career Guidance and Special Needs Career and Technical Education	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
NTD 3312 & 3312L	Quantity Foods and Quantity Foods Laboratory	4
NTD 3360	Nutrition Through the Lifecycle	3
NTD 4439	Sports Nutrition	3
OLP 4405	Learning Fundamentals	3
OLP 4409	Professional Readings and Writing in Human Resource Development	3

French 20 Credit Endorsement

Code	Title	Credits
FREN 1101 & FREN 1102	Elementary French I and Elementary French II (or equivalent) ¹	8
FREN 2201 & FREN 2202	Intermediate French I and Intermediate French II (or equivalent)	8
CMLT 2207	Contemporary European Culture	3
FREN 3301 or FREN 3302	French Conversation and Composition I French Conversation and Composition II	3

FREN 3341	Survey of French Literature and Civilization I	3
or FREN 3342	Survey of French Literature and Civilization II	
LANG 4437	The Teaching of Foreign Languages	3

¹ If a student is able to place into FREN 2201/FREN 2202, these courses can be waived. Please see "Language Placement Testing (p. 129)" in the Global Studies section of this catalog for information on language placement. FREN 1101/FREN 1102 are not required for teacher certification in French in Idaho.

French 30 Credit Endorsement

Code	Title	Credits
FREN 1101 & FREN 1102	Elementary French I and Elementary French II (or equivalent) ¹	8
FREN 2201 & FREN 2202	Intermediate French I and Intermediate French II (or equivalent)	8
CMLT 2207	Contemporary European Culture	3
FREN 3301 & FREN 3302	French Conversation and Composition I and French Conversation and Composition II	6
FREN 3341	Survey of French Literature and Civilization I	3

FREN 3342	Survey of French Literature and Civilization II	3
LANG 4437	The Teaching of Foreign Languages	3
Select ONE of the following courses:		2-3
FREN 3375	Topics in Culture and Literature	
FREN 4400	French Advanced Grammar	
FREN 4470	Readings in French	

¹ If a student is able to place into FREN 2201/FREN 2202, these courses can be waived. Please see "Language Placement Testing (p. 129)" in the Global Studies section of this catalog for information on language placement. FREN 1101/FREN 1102 are not required for teacher certification in French in Idaho.

Geology 20 Credit Endorsement

Code	Title	Credits
EDUC 3331	Science Methods for Teachers	3
GEOL 1100 & 1100L	The Dynamic Earth and The Dynamic Earth Lab	4
or		
GEOL 1101 & 1101L	Physical Geology and Physical Geology Lab	

GEOL 1107	Real Monsters	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 4410	Science in American Society	2
PHYS 1152	Descriptive Astronomy	3

Geology 30 Credit Endorsement

Code	Title	Credits
EDUC 3331	Science Methods for Teachers	3
GEOL 1100 & 1100L	The Dynamic Earth and The Dynamic Earth Lab	4
or		
GEOL 1101 & 1101L	Physical Geology and Physical Geology Lab	
GEOL 1107	Real Monsters	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4410	Science in American Society	2
PHYS 1152	Descriptive Astronomy	3
Approved Geology Electives		3
GEOL 3310	Geologic Field Methods	

GEOL 3313	Earth Materials I
GEOL 3314	Earth Materials II
GEOL 4405	Volcanology
GEOL 4416	Global Environmental Change
GEOL 4420	Principles of Geochemistry
GEOL 4421	Structural Geology
GEOL 4430	Principles of Hydrogeology
GEOL 4431	Geobiology and the History of Life
GEOL 4452	Sedimentation-Stratigraphy
GEOL 4456	Geology of Idaho
GEOL 4458	Geology of North America
GEOL/HIST 4471	Historical Geography of Idaho
GEOL 4491	Seminar

Geology 45 Credit Endorsement

Code	Title	Credits
Required Courses:		
EDUC 3331	Science Methods for Teachers	3
GEOL 1100 & 1100L	The Dynamic Earth and The Dynamic Earth Lab (Partially satisfies General Education Objective 5.)	4
or		
GEOL 1101 & 1101L	Physical Geology and Physical Geology Lab (Partially satisfies General Education Objective 5.)	
GEOL 1107	Real Monsters (Satisfies General Education Objective 7.)	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 3310	Geologic Field Methods	3
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4403	Principles of Geographic Information Systems	3
GEOL 4410	Science in American Society	2

GEOL 4421	Structural Geology	4
GEOL 4452 & 4452L	Sedimentation-Stratigraphy and Sedimentation-Stratigraphy Laboratory	4
GEOL 4491	Seminar	1
PHYS 1152	Descriptive Astronomy	3

Geology Electives		3
GEOL 3313	Earth Materials I ¹	
GEOL 3314	Earth Materials II	
GEOL 4405	Volcanology	
GEOL 4416	Global Environmental Change	
GEOL 4420	Principles of Geochemistry	
GEOL 4430	Principles of Hydrogeology	
GEOL 4431	Geobiology and the History of Life	
GEOL 4456	Geology of Idaho	
GEOL 4458	Geology of North America	
GEOL/HIST/POLS 4471	Historical Geography of Idaho	

¹ PREREQ or COREQ: CHEM 1111

German 20 Credit Endorsement

Code	Title	Credits
GERM 1101 & GERM 1102	Elementary German I and Elementary German II (or equivalent) ¹	8
GERM 2201 & GERM 2202	Intermediate German I and Intermediate German II (or equivalent)	8
LANG 4437	The Teaching of Foreign Languages	3
Approved upper division electives in German ²		9

¹ If a student is able to place into GERM 2201/GERM 2202, these courses can be waived. Please see "Language Placement Testing (p. 129)" in the Global Studies section of this catalog for information on language placement. GERM 1101/GERM 1102 are not required for teacher certification in German in Idaho.

² Must be approved by Department of Languages and Literatures and College of Education.

German 30 Credit Endorsement

Code	Title	Credits	LANG 4437	The Teaching of Foreign Languages	3
GERM 1101 & GERM 1102	Elementary German I and Elementary German II (or equivalent) ¹	8	Upper division electives in German ²		12
GERM 2201 & GERM 2202	Intermediate German I and Intermediate German II (or equivalent)	8			
GERM 3301 & GERM 3302	German Conversation and Composition I and German Conversation and Composition II	6			

¹ If a student is able to place into GERM 2201/GERM 2202, these courses can be waived. Please see "Language Placement Testing (p. 129)" in the Global Studies section of this catalog for information on language placement. GERM 1101/GERM 1102 are not required for teacher certification in German in Idaho.

² Must be approved by Department of Languages and Literatures and College of Education

Health Education Teaching 20 Credit Endorsement

Prerequisites:

Admission to Teacher Education Program

Required Courses:

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 4430	Curriculum and Methods in Health Education	3
HE 4432	Community and Public Health	3
Plus THREE of the following eight courses (minimum 9 credits):		9
HE 3340	Fitness and Wellness Programs	

HE 3342	Stress and Emotional Health	
HE 4410	Health Behavior Change Theory and Application	
HE 4442	Environmental Health in Community and Public Health	
HE 4443	Substance Abuse in Community and Public Health	
HE 4444	Human Diseases in Community and Public Health	
HE 4445	Human Sexuality in Community and Public Health	
NTD 2239	Nutrition	

Health Education Teaching 30 Credit Endorsement

Prerequisites:

Admission to Teacher Education Program

School Health Education Core:

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 4430	Curriculum and Methods in Health Education	3
HE 4432	Community and Public Health	3
Plus the following courses:		
HE 4410	Health Behavior Change Theory and Application	3
HE 4420	Health Program Planning and Implementation	3

HE 4435	Health Program Evaluation and Research	3
Plus THREE of the following SEVEN courses (Minimum 9 credits):		9
HE 3340	Fitness and Wellness Programs	
HE 3342	Stress and Emotional Health	
HE 4442	Environmental Health in Community and Public Health	
HE 4443	Substance Abuse in Community and Public Health	
HE 4444	Human Diseases in Community and Public Health	
HE 4445	Human Sexuality in Community and Public Health	
NTD 2239	Nutrition	

Health Education 45 Credit Endorsement

Prerequisites:

Admission to Teacher Education Program

Required Courses:

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 3340	Fitness and Wellness Programs	3
HE 3342	Stress and Emotional Health	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4420	Health Program Planning and Implementation	3
HE 4430	Curriculum and Methods in Health Education	3
HE 4432	Community and Public Health	3
HE 4435	Health Program Evaluation and Research	3

HE 4442	Environmental Health in Community and Public Health	3
HE 4443	Substance Abuse in Community and Public Health	3
HE 4444	Human Diseases in Community and Public Health	3
HE 4445	Human Sexuality in Community and Public Health	3
NTD 2239	Nutrition	3
Plus one of the following courses (Minimum 3 credits)		3
HE 2211	Health Education Methods Elementary (Required for K-12 Endorsement)	
HE 3383	Epidemiology	
HE 4405	Leadership and Policy	
HE 4446	Communication Strategies in Community and Public Health	
HE Approved Electives (1-3)		

History 20 Credit Endorsement

Code	Title	Credits
U.S. History		9
HIST 4418	United States History for Teachers	
Choose 6 credits of upper division U.S. History from the following:		
HIST 3307	Early North America	
HIST 3308	Industrialization and Reform in the United States	
HIST 3309	Modern United States	
HIST 4420	Topics in U.S. History	
HIST 4421	Federal Indian Relations	
HIST 4423	Idaho History	
HIST 4425	Women in the North American West	
HIST 4427	American West	
HIST 4432	U.S. Environmental History	
HIST 4433	History of Energy	
HIST 4465	US Political History	
World Regions		6
Choose one of the following:		
HIST 1105	Foundations of Europe (Partially satisfies General Education Objective 6.)	
HIST 1106	Modern Europe (Partially satisfies General Education Objective 6.)	
Choose 3 credits of the following:		
HIST 1100	History in Film (Satisfies General Education Objective 7.)	
HIST 1101	World History I (Partially satisfies General Education Objective 6.)	
HIST 1102	World History II (Partially satisfies General Education Objective 6.)	
HIST 2221	Ancient World	
HIST 2241	History of World Religions	

HIST 2251	Latin American History and Culture (Satisfies General Education Objective 9.)	
HIST 2252	East Asian History (Satisfies General Education Objective 9.)	
HIST 2254	Middle East History and Culture (Satisfies General Education Objective 9.)	
HIST 2255	African History and Culture (Satisfies General Education Objective 9.)	
Upper Division World, Comparative and non-U.S. History		6
Choose 6 credits from the following:		
HIST 3318	History of Christianity	
HIST 3322	Religious Reformation and Conflict	
HIST 3323	French Revolution and the Napoleonic Legacy	
HIST 3325	Early Modern Europe	
HIST 3326	Twentieth Century Europe	
HIST 3327	World War I and Its Legacy	
HIST 3350	Spain in the Early Modern World	
HIST 3354	Modern Middle East	
HIST 3355	Slavery in History	
HIST 3376	Foodways in History	
HIST 4405	Problems in History	
HIST 4429	Foreign Relations since 1900	
HIST 4430	Global Environmental History	
HIST 4431	Topics in Global History	
HIST 4435	History of Colonialism	
HIST 4437	Families in Former Times	
HIST 4439	Women in World History	
HIST 4440	History of Revolutions	
HIST 4443	Topics in European History	
HIST 4445	Modern Ireland	
HIST 4446	Topics in Ancient History and Culture	

HIST 4448	Topics in Medieval History and Culture	HIST 4474	Islam in the Modern World
HIST 4451	Topics in Latin American History and Culture	HIST 4478	History of Empires
HIST 4452	Topics in Asian History and Culture	HIST 4479	History of Disease, Medicine, and Society
HIST 4454	Topics in Middle East History and Culture	Total Credits	21

History 30 Credit Endorsement

Graduation Requirements

In addition to the University's General Education Requirements for the Bachelor of Arts Degree (a minimum of 36 credits), all history majors must take a minimum of 30 credits as shown below:

Code	Title	Credits
U.S. History		9
Take both:		
HIST 1118	US History and Culture (Satisfies General Education Objective 7.)	
HIST 4418	United States History for Teachers	
Choose 3 credits from the following:		
HIST 1111	United States History I (Partially satisfies General Education Objective 6.)	
HIST 1112	United States History II (Partially satisfies General Education Objective 6.)	
HIST 2201	Women In U.S. History (Satisfies General Education Objective 9.)	
Upper Division U.S. History		3
Choose 3 credits from the following:		
HIST 3307	Early North America	
HIST 3308	Industrialization and Reform in the United States	
HIST 3309	Modern United States	
HIST 4420	Topics in U.S. History	
HIST 4421	Federal Indian Relations	
HIST 4423	Idaho History	
HIST 4425	Women in the North American West	
HIST 4427	American West	
HIST 4432	U.S. Environmental History	
HIST 4433	History of Energy	
HIST 4465	US Political History	
Research Skills		6
Take both:		
HIST 2291	The Historian's Craft	
HIST 4491	History Seminar	
World Regions		9
Choose one of the following:		
HIST 1105	Foundations of Europe (Partially satisfies General Education Objective 6.)	
HIST 1106	Modern Europe (Partially satisfies General Education Objective 6.)	

Take 3 credits of the following:

HIST 1100	History in Film (Satisfies General Education Objective 7.)	
HIST 1101	World History I (Partially satisfies General Education Objective 6.)	
HIST 1102	World History II (Partially satisfies General Education Objective 6.)	
HIST 1120	Themes in World History (Satisfies General Education Objective 7.)	
HIST 2221	Ancient World	
HIST 2241	History of World Religions	
HIST 2251	Latin American History and Culture (Satisfies General Education Objective 9.)	
HIST 2252	East Asian History (Satisfies General Education Objective 9.)	
HIST 2254	Middle East History and Culture (Satisfies General Education Objective 9.)	
HIST 2255	African History and Culture (Satisfies General Education Objective 9.)	
Upper Division World, Comparative and non-U.S. History		3
Take 3 credits from the following:		
HIST 3318	History of Christianity	
HIST 3322	Religious Reformation and Conflict	
HIST 3323	French Revolution and the Napoleonic Legacy	
HIST 3325	Early Modern Europe	
HIST 3326	Twentieth Century Europe	
HIST 3327	World War I and Its Legacy	
HIST 3350	Spain in the Early Modern World	
HIST 3354	Modern Middle East	
HIST 3355	Slavery in History	
HIST 3376	Foodways in History	
HIST 4405	Problems in History	
HIST 4429	Foreign Relations since 1900	
HIST 4430	Global Environmental History	
HIST 4431	Topics in Global History	
HIST 4435	History of Colonialism	
HIST 4437	Families in Former Times	
HIST 4439	Women in World History	
HIST 4440	History of Revolutions	
HIST 4443	Topics in European History	
HIST 4445	Modern Ireland	
HIST 4446	Topics in Ancient History and Culture	

HIST 4448	Topics in Medieval History and Culture	HIST 4474	Islam in the Modern World
HIST 4451	Topics in Latin American History and Culture	HIST 4478	History of Empires
HIST 4452	Topics in Asian History and Culture	HIST 4479	History of Disease, Medicine, and Society
HIST 4454	Topics in Middle East History and Culture	Total Credits	30

Journalism 20 Credit Endorsement

Code	Title	Credits	Six (6) credits of approved electives selected from:	
ENGL 4433	Methods Teaching English (highly recommended)	3	CMP 2271	Television and Video Production 3
CMP 1110	Media Writing	3	CMP 3311	Business and Political Reporting 3
CMP 2202	Photo, Graphic, and Video Editing	3	CMP 3339	Web Design 3
CMP 2251	Introduction to Photography	3	CMP 4403	Mass Communication and Society 3
CMP 3310	Multiplatform Storytelling	3	CMP 4410	Mass Media History, Law, and Ethics 3

Mathematics 20 Credit Endorsement

Code	Title	Credits		
MATH 1170	Calculus I	4	MATH 2287	Foundations of Mathematics 3
MATH 1175	Calculus II	4	MATH 3343	Modern Geometry I 3
MATH 2240	Linear Algebra	3	MATH 3352	Introduction to Probability 3
			EDUC 4470	Advanced Mathematics Methods 3

Mathematics 30 Credit Endorsement

Code	Title	Credits		
MATH 1170	Calculus I	4	MATH 2287	Foundations of Mathematics 3
MATH 1175	Calculus II	4	MATH 3343	Modern Geometry I 3
MATH 2240	Linear Algebra	3	MATH 3352	Introduction to Probability 3
MATH 2275	Calculus III	4	MATH 4407	Modern Algebra I 3
			EDUC 4470	Advanced Mathematics Methods 3

Mathematics 45 Credit Endorsement

Code	Title	Credits		
CS 1181	Computer Science and Programming I	3	MATH 3326	Elementary Analysis 3
MATH 1170	Calculus I	4	MATH 3343	Modern Geometry I 3
MATH 1175	Calculus II	4	MATH 3352	Introduction to Probability 3
MATH 2240	Linear Algebra	3	MATH 4407	Modern Algebra I 3
MATH 2275	Calculus III	4	MATH 4408	Modern Algebra II 3
MATH 2287	Foundations of Mathematics	3	EDUC 4470	Advanced Mathematics Methods 3
			Approved upper-division mathematics electives	6

Physical Education 45 Credit Endorsement

Code	Title	Credits		
PE 2222	First Aid CPR and Sport Safety	3	PE 3300	Movement Theory and Motor Development 3
PE 2223	Foundations of Physical Education and Sport	3	PE 3303	Kinesiology for Teachers and Coaches 3
PE 2237	Activity Performance Techniques III	3	PE 3357	Methods of Teaching Elementary Physical Education 3
PE 2243	Anatomical Foundations of Human Activity	3	PE 3362	Tests and Measurements in Physical Education 3
PE 2281	Practical Outdoor Skills	1	PE 3370	Care and Prevention of Athletic Injuries 3

PE 4437	Methods of Teaching Secondary Physical Education	3
PE 4475	Organization and Administration of Physical Education	3
PE 4494	Adapted Physical Activity	3
One (1) Aquatics PEAC course, examples include: ¹		1
PEAC 1170A	Beginning Swimming	
PEAC 1170B	Intermediate Swimming	
One (1) Field based PEAC course, examples include: ¹		1
PEAC 1155A	Beginning Soccer	
PEAC 1158	Softball	
PEAC 1159	Ultimate Frisbee	
One (1) Court based PEAC course, example include: ¹		1
PEAC 1151A	Beginning Tennis	
PEAC 1156A	Beginning Basketball	

PEAC 1157A	Beginning Volleyball	
One (1) Lifetime activity PEAC course, examples include: ¹		1
PEAC 1122A	Beginning Yoga	
PEAC 1132A	Spinning	
PEAC 1175A	Beginning Kayaking	
One (1) additional PEAC course from the examples listed above ¹		1
One of the following:		3
PE 3322	Introduction to Sport Psychology	
or PE 3364	Introduction to Sport Law	

¹ For a complete list, please see <https://www.isu.edu/sspe/physical-education-activity-courses/> or see your advisor.

IN ADDITION: Candidate must present a current First Aid and CPR Card to advisor at the time of graduation.

Physics 20 Credit Endorsement

Code	Title	Credits
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	4
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory	4
PHYS 1152 & PHYS 1153	Descriptive Astronomy and Descriptive Astronomy Laboratory	4

PHYS 4400 or EDUC 3331	Practicum in Physical Science Science Methods for Teachers	2-3
GEOL 4410	Science in American Society	2
MATH 1170	Calculus I	4

Physics 30 Credit Endorsement

Code	Title	Credits
GEOL 4410	Science in American Society	2
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 3360	Differential Equations	3
PHYS 1152 & PHYS 1153	Descriptive Astronomy and Descriptive Astronomy Laboratory	4

PHYS 2211 & PHYS 2213	Engineering Physics I and Engineering Physics I Laboratory	5
PHYS 2212 & PHYS 2214	Engineering Physics II and Engineering Physics II Laboratory	5
PHYS 3301	Modern Physics	3
PHYS 4400 or EDUC 3331	Practicum in Physical Science Science Methods for Teachers	2-3

Social Studies 30 Credit Endorsement

Must be accompanied by a 20 credit endorsement in Economics, History, or Political Science.

All candidates must take the following required courses:

Code	Title	Credits
EDUC 3336	Social Science Methods	3

An additional twelve (12) credits are required from THREE of the following fields, chosen from the remaining fields BEYOND the one chosen as an additional major or minor (total of 36 credits):

Economics

ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
ECON 3301 or ECON 3302	Macroeconomic Theory Microeconomic Theory	3
FIN 1115	Personal Finance	3

Geography

GEOL 1100 & 1100L	The Dynamic Earth and The Dynamic Earth Lab	4
GLBL 2270	World Regional Geography and Cultures	3

Plus TWO of the following geography courses to complete the Geography field:

GEOL 4403	Principles of Geographic Information Systems	
GEOL/HIST/POLS 4471	Historical Geography of Idaho	
GLBL 3379	Environment and Geography	

History

Select TWO history courses from the following list:

HIST 1105	Foundations of Europe	
HIST 1106	Modern Europe	
HIST 2251	Latin American History and Culture	
HIST 2252	East Asian History	

HIST 2254	Middle East History and Culture	
HIST 2255	African History and Culture	
Plus TWO additional history courses from the following list:		6
HIST 3307	Early North America	
HIST 3308	Industrialization and Reform in the United States	
HIST 3309	Modern United States	
HIST 4418	United States History for Teachers	
Political Science		
POLS 1101	American National Government	3
POLS 2221	Introduction to International Relations	3
Plus TWO additional political science courses from the following list:		6

POLS 3308	State and Local Government	
POLS 3313	Introduction to Political Philosophy	
POLS 3326	Recent US Foreign Policy	
POLS 3331	Comparative Politics Framework for Analysis	
POLS 4401	Political Parties and Groups	
POLS 4403	The Presidency	
POLS 4404	The Legislative Process	
POLS 4411	American Political Theory	
POLS 4443	Civil Rights and Liberties	
POLS 4455	Environmental Politics and Policy	

Spanish 20 Credit Endorsement

Code	Title	Credits			
SPAN 1101 & SPAN 1102	Elementary Spanish I and Elementary Spanish II (or equivalent) ¹	8	SPAN 3341	Survey of Spanish Literature and Civilization	3
SPAN 2201 & SPAN 2202	Intermediate Spanish I and Intermediate Spanish II (or equivalent)	8	or SPAN 3342	Survey of Latin American Literature and Civilization	
CMLT 2207 or CMLT 2208	Contemporary European Culture Cultures of the Spanish Speaking World	3	LANG 4437	The Teaching of Foreign Languages	3
SPAN 3301 or SPAN 3302	Spanish Conversation and Composition I Spanish Conversation and Composition II	3	¹ If a student is able to place into SPAN 2201/SPAN 2202, these courses can be waived. Please see "Language Placement Testing (p. 129)" in the Global Studies section of this catalog for information on language placement. SPAN 1101/SPAN 1102 are not required for teacher certification in Spanish in Idaho.		

Spanish 30 Credit Endorsement

Code	Title	Credits			
SPAN 1101 & SPAN 1102	Elementary Spanish I and Elementary Spanish II (or equivalent) ¹	8	SPAN 3342	Survey of Latin American Literature and Civilization	3
SPAN 2201 & SPAN 2202	Intermediate Spanish I and Intermediate Spanish II (or equivalent)	8	LANG 4437	The Teaching of Foreign Languages	3
CMLT 2207	Contemporary European Culture	3	Select ONE of the following courses:		
CMLT 2208	Cultures of the Spanish Speaking World	3	SPAN 3375	Topics in Culture and Literature	
SPAN 3301 & SPAN 3302	Spanish Conversation and Composition I and Spanish Conversation and Composition II	6	SPAN 4400	Spanish Advanced Grammar	
SPAN 3341	Survey of Spanish Literature and Civilization	3	SPAN 4470	Readings in Spanish	
			¹ If a student is able to place into SPAN 2201/SPAN 2202, these courses can be waived. Please see "Language Placement Testing (p. 129)" in the Global Studies section of this catalog for information on language placement. SPAN 1101/SPAN 1102 are not required for teacher certification in Spanish in Idaho.		

Secondary Education, Certification Only

Requirements

1. Completion of a subject teaching endorsement of at least 30 semester credit hours, as recommended by the subject department and approved by the College of Education, and a subject teaching endorsement of at least 20 semester credit hours, as recommended by the subject department and approved by the College of Education, OR completion of a single subject

teaching endorsement of at least 45 semester credit hours as recommended by the subject department and approved by the College of Education.

2. Completion of the Professional Education Core and Student Teaching Internship:

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 3302	Motivation and Management	3
EDUC 3308	Foundations of Educational Knowledge, Planning, and Assessment	3
EDUC 3311	Instructional Technology	3
SPED 3350	Creating Inclusive Classrooms	3
EDUC 4408	Pre-Internship Field Experience Seminar	3
EDUC 4496	Secondary Education Student Teaching Internship	12

3. Completion of Secondary Education Required Course:

Code	Title	Credits
EDUC 4401	Content Area Literacy	3

Music Education

Bachelor of Music Education

Program Description	Type	Degree
Music Education, B.M.E. (p. 155)	Degree	B.M.E.

Overview

The Bachelor of Music Education is a nine-semester degree program designed to prepare candidates to obtain a teaching credential certificate to teach vocal and instrumental music in elementary and secondary schools. Complete information on admission to the music program, applied music, course sequencing, senior recital, large and small ensemble requirements, and other departmental policies may be found in the Music Department Student/Faculty handbook, available upon request from the chair of the Music Department. Candidates should request advisors in the Music Department and in the College of Education.

Admission

All prospective music majors/minors and transfer students must contact the department office prior to their first semester's registration to be assigned a departmental advisor and take diagnostic placement tests and performance auditions. Acceptance as a music major/minor is dependent upon auditions and these examinations. Examinations should be taken before or during the week preceding classwork.

Performance Auditions

These auditions will include technique demonstration and repertoire performance.

Theory Placement Exam

This exam will determine the specific semester of music theory to which a student will be assigned.

Bachelor of Music Education

Music Education students must complete requirements and be fully admitted to the Teacher Education Program before they can take courses in professional Education number 3000 and above. Refer to the Teacher Education Program (p. 211) in the College of Education section of this Undergraduate Catalog.

Students completing the Bachelor of Music Education must complete 8 of the 9 General Education Objectives (minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this Catalog).

Professional Education Requirements

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 4401	Content Area Literacy	3
SPEd 3350	Creating Inclusive Classrooms	3
EDUC 4492	Secondary Music Education Student Teaching Internship	12

Piano Placement Exams

These tests serve to determine the specific semester and section of class piano or private instruction to which a student will be admitted. All music majors must successfully complete the department's required piano proficiency to graduate. Credits in MUSC 1118, MUSC 1119, MUSC 2218, MUSC 2219, or MUSA 1120 may be used toward passing the piano proficiency. The student must register for piano or piano class each semester until passing the proficiency exam.

Special Graduation Requirements

1. An overall accumulative grade point average of 2.0 for all University courses is required for graduation. The Music Department requires a Music GPA of 2.5 as a standard for graduation. An additional requirement is that a music major or minor must earn no less than a "C-" grade in each music course. Furthermore, at least a "C-" grade must be received to advance to another course for which the earlier course is a prerequisite, or to advance to the next level of a continuation course.
2. All Music majors must pass the department's Junior Standing Exam (usually taken at the end of the sophomore year) and register for, and pass, applied music lessons, a minimum of 2 semesters at the 3000 level, and 1-2 semesters at the 4000 level.

Music Department Handbook

A handbook is available online at <https://www.isu.edu/media/libraries/school-of-performing-arts/music/music-handbook.pdf>, which describes more completely the facilities, policies, course sequencing, and departmental operations. Prospective students and music majors/minors are urged to become familiar with its contents.

Basic Music Requirements

Code	Title	Credits
MUSC 1103	Theory of Music I	3
MUSC 1104	Theory of Music II	3
MUSC 1107	Recital Attendance (7 semesters)	0
MUSI 1108	The World of Music (Partially satisfies General Education Objective 4)	4
MUSC 1113	Aural Skills I	1
MUSC 1114	Aural Skills II	1
MUSC 1127	Class Voice	1
or MUSP 1172	ISU Women's Choir	
or MUSP 1173	Concert Choir	
MUSC 2203	Theory of Music III	3
MUSC 2204	Theory of Music IV	3
MUSC 2213	Aural Skills III	1
MUSC 2214	Aural Skills IV	1
MUSC 2252	Introduction to Music Education	1
MUSC 2255	Woodwind Methods	2
MUSC 2256	Brass Methods	2
MUSC 2258	Percussion Methods	2

MUSC 2259	String Methods	2
MUSC 3304	Music History I	3
MUSC 3305	Music History II	3
MUSC 3306	Music History III	3
MUSC 3311	Form and Analysis	2
MUSC 3312	Music Technology	2
MUSC 3319	Choral Conducting	2
MUSC 3320	Instrumental Conducting	2
MUSC 3333	Elementary Music Methods	3
MUSC 3334	Choral Music Methods	2
MUSC 3335	Instrumental Music Methods	2
MUSC 3338	Field Experience in Music Education	2
MUSC 4401	Orchestration	2
Applied music (major instrument or voice)		7
Large Performing Ensembles (band, orchestra, choir)		7

In Addition:

Solo or joint senior recital

Piano proficiency ¹

Chamber Ensembles

¹ Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-MUSC 1119, MUSC 2218-MUSC 2219, or MUSA 1120) may be used toward passing the piano proficiency. The candidate must register for piano each semester until able to pass the proficiency exam.

Special Education

Program Description	Type	Degree
Special Education, B.A./B.S. (p. 250)	Degree	B.A./B.S.
Deaf Education (Non-Certification), Minor (p. 250)	Minor	

Overview

The Special Education major provides candidates with a bachelor's degree in special education and prepares candidates for professional certification with an endorsement as a special education generalist.

Broadly stated, the objectives of the Special Education Program are:

1. Candidates will demonstrate an understanding of a wide variety of disability categories and their instructional implications, as well as the legal and ethical considerations for educating individuals with disabilities.

2. Candidates will demonstrate understanding of instructional methodologies and curricula that have an extensive experimental research base to support their effectiveness for all individuals, especially those with learning difficulties.
3. Candidates will make instructional decisions based on reliable and valid data that are primarily objective in nature.
4. Candidates will demonstrate instruction and behavior management strategies that are proactive and teach new skills, as opposed to being punitive in nature.
5. Candidates will demonstrate professional and collaboration skills with teachers, parents, administrators, and other professionals.

Faculty (p. 249)

SPED Courses (p. 650)

Special Education Faculty

Assistant Professors

Gallup, Jennifer,* Assistant Professor, Teaching and Educational Studies. BS. 2008, Washington State University; M.A. 2012, Ph.D. 2015, University of Central Florida. (2015)

Perihan, Celal, Assistant Professor, Teaching and Educational Studies. B.A. 2008, AIBU University, Turkey; Master in SPED 2012, Cleveland State University; Ph.D 2018, Texas A&M University. (2018)

Bachelor of Arts or Bachelor of Science in Special Education

Program Admissions Requirements

Prior to acceptance to the B.A./B.S. in Special Education Program, all applicants must complete SPED 3330 or SPED 3340 and earn a grade of at least C.

Candidates must also complete EDUC 2201 and EDUC 2204 with grades of C or better and pass performance assessments associated with these courses, have an overall GPA of at least 3.0, and be approved by a faculty screening committee following an admission interview.

Course Requirements for the B.A. or B.S. degree (in addition to university requirements):

Code	Title	Credits
EDUC 2201	Development and Individual Differences	3
EDUC 2204	Families Community Culture	3
EDUC 3308	Foundations of Educational Knowledge, Planning, and Assessment	3
EDUC 3311	Instructional Technology	3
EDUC 3321	Integrated Language Arts Methods	3
EDUC 3322	Literature for Children across the Curriculum	3
EDUC 3330	Elementary Math Methods	3
EDUC 3331	Science Methods for Teachers	3
EDUC 4408	Pre-Internship Field Experience Seminar	3
EDUC 4419	Developmental Literacy	3

EDUC 4470	Advanced Mathematics Methods	3
MATH 2256	Structure of Arithmetic for Elementary School Teachers (Satisfies General Education Objective 3)	3
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3
SPED 3330	The Exceptional Child	3
SPED 3340	Principles of Behavior Management	3
SPED 4423	Designing Instruction	3
SPED 4424	Assessment Procedures in Special Education	3
SPED 4429	Teaching Students with Significant and Multiple Disabilities	3
SPED 4434	Language and Communication Methods in Special Education	3
or CSD 3335	Language Development and Disorders	
SPED 4435	Practicum in Small Group Instruction	2
SPED 4443	Teaching Students with Autism Spectrum Disorder	3
SPED 4446	Secondary Special Education	3
SPED 4490	Consultation and Collaboration	3
SPED 4495	Special Education: Student Teaching Internship ¹	12

¹ This is a 6-12 credit course taken for a total of 12 credits.

Minor in Deaf Education (Non-Certification)

Code	Title	Credits
CSD 1126	Deaf Studies	2
CSD 2205	Introduction to Professions in Communication Sciences	3
CSD 2256	Deaf Culture and Community	3
CSD 2258	Language Acquisition in American Sign Language	3
CSD 4460	Educational Audiology	3
Electives (8 credits minimum)		8
CSD 1151	American Sign Language I	
CSD 1152	American Sign Language II	
CSD 2251	American Sign Language III	
CSD 2252	American Sign Language IV	
CSD 4405	Neuroscience for Communication Disorders	

Procedure: Interested students should contact the department of Communication Sciences & Disorders to declare a minor and be assigned a minor advisor.

Students with a minor in Deaf Education and who are eligible for a teaching certificate may be prepared to enter the regular, 14 month graduate program.

Department of Sport Science and Physical Education

Program Description	Type	Degree
Physical Education, B.A./B.S. (p. 253)	Degree	B.A./B.S.
Exercise Science Emphasis (p. 253)	Emphasis	
Physical Education Teaching Emphasis, K-12 (p. 256)	Emphasis	
Outdoor Education Emphasis (p. 254)	Emphasis	
Sport Management Emphasis (p. 257)	Emphasis	
Coaching, Minor (p. 258)	Minor	
Outdoor Education, Minor (p. 259)	Minor	
Sport Management, Minor (p. 260)	Minor	

Overview

The mission of the Department of Sport Science and Physical Education at Idaho State University is to provide candidates with the intellectual and physical skills necessary to maximize their potential. The study of the physical education discipline is an important part of the curriculum at Idaho State University; it strives to fulfill the university mission as well as the College of Education's mission in the enhancement of learning, lifelong development, and educational leadership. The study of physical education encourages candidates to respect human dignity, to be critical thinkers, and to be effective communicators. It provides an opportunity for the individual to make decisions regarding lifestyle and health choices enhancing self-direction and self-esteem. Physical education develops both the mental and physical discipline to provide opportunities for mental, social, emotional, spiritual, and personal development while interacting in a university environment.

The Idaho State University Department of Sport Science and Physical Education is committed to providing an academic program in which men and women can discover, experience, and reflect upon the study of movement. Curricula are designed to challenge candidates in the theory and to provide opportunity for practical experiences. Candidates are expected to become both advocates for and contributors to the discipline on personal and professional levels. Faculty members are committed to excellence in teaching, concerns for the needs of candidates, service to the community, and expertise in their discipline.

Majors

Majors in Physical Education receive preparation for a number of careers. The candidate majoring in Physical Education may select from four emphasis areas

including exercise science, outdoor education, sport management, and teaching. Majors receive preparation for graduate work in areas such as physical education, physical therapy, exercise science, outdoor education, and athletic administration.

Minors

The Department of Sport Science and Physical Education also offers three minor areas of study to facilitate professional and career development needed by women and men to succeed in a changing world. Candidates may choose to minor in coaching, outdoor education, or sport management. In order to graduate with a minor from the Department of Sport Science and Physical Education, the candidate must achieve the following in addition to completing the course requirements:

1. A minimum grade of "C" (2.0) in all required and elective minor courses; and
2. A minimum GPA of 3.0 in the minor.

Activity Program

The Department of Sport Science and Physical Education is committed to make the sport and leisure activity program for the major and non-major an experience serving the needs and interests of participants. The activity program is designed to develop participants' skills in lifetime activities and to increase participants' fitness level.

Graduate Degree Programs

The Department of Sport Science and Physical Education also offers two master's degree programs. The Master of Physical Education degree with an emphasis in Athletic Administration is designed to facilitate the intellectual and practical knowledge necessary to enter the field of sport management or administration upon graduation. The Master of Science in Athletic Training develops competent athletic training students who qualify to sit for the Board of Certification examination. Please see the Graduate Catalog (<http://coursecat.isu.edu/graduate/education/sportscienceandphysicaleducation>) for more information.

Faculty (p. 251)

PE Courses (p. 624)

PEAC Courses (p. 627)

Sport Science and Physical Education Faculty

Chair and Associate Professor

Fitzpatrick, John M.,* Department Chair and Associate Professor, Sport Science and Physical Education. B.A. 1981, University of California, Santa Barbara; M.A. 1991, California State University, Northridge; Ph.D. 1998, Michigan State University. (2004)

Professors

Appleby, Karen M.,* Professor, Sport Science and Physical Education. B.A. 1998, Hanover College; M.S. 1999, M.S. 2000, Ph.D. 2004, University of Tennessee, Knoxville. (2004)

Lyons, Gerard G.,* Professor, Sport Science and Physical Education. B.S. 1977, St. Joseph's College, Brentwood, NY; M.S. 1978, Long Island University Graduate School; Ed.D. 1984, Texas A&M University. (1998)

Associate Professors

Fauré, Caroline,* Professor, Sport Science and Physical Education. A.A. 1989, College of Southern Idaho; B.A. 1991, B.A. 1997, Ed.D. 2006, Idaho State University. (2004)

Gauthier, Howard,* Associate Professor, Sport Science and Physical Education. B.A. 1981, Washington State University; M.S. 1984, St. Thomas University; Ph.D. 1988, Southern Illinois University. (2008)

Meyers, Michael C. * Associate Professor, Sport Science and Physical Education. B.S. Oklahoma State University, Stillwater; M.S., Ph.D. Texas A&M University. (2013)

Assistant Professors

Moffit, Dani M. * Assistant Professor, Sports Science and Physical Education. B.S. 1991, Idaho State University; M.A. 1992, Western Michigan University; M.P.E. 2001, Idaho State University; Ph.D. 2008, Temple University. (2012)

Sung, JongHun. Assistant Professor, Sports Science and Physical Education. B.S. 2010, Eastern Illinois University; M.S. 2013, Ph.D, 2019, University of Illinois at Urbana-Champaign. (2019)

Associate Lecturers

Cordingley, Kolby R. Associate Lecturer, Sport Science and Physical Education. A.A.&S. 1997, Ricks College; B.S. 2001, M.P.E. 2002, Idaho State University. (2002)

Emeriti

Lester, Michael J. * Professor, Sport Science and Physical Education. 1990-2018

Noakes, Sandra D. Assistant Professor, Physical Education. 1966-2002

Watters, Ronald, Senior Lecturer, Sport Science and Physical Education. 1974-2007

Bachelor of Arts or Bachelor of Science in Physical Education

Physical Education Standards

The Physical Education Learning Goals are aligned with 2 sets of standards: The Idaho State University College of Education Core Standards (described previously), and the Content Standards in Physical Education of the National Association for Sport and Physical Education (NASPE).

Graduation Requirements

In order to graduate from the Sport Science and Physical Education Program as a major, the candidate must achieve the following in addition to completing the course requirements:¹

1. Minimum grade of "C" (2.0) in professional courses.
2. Minimum overall cumulative GPA of 2.7.
3. Minimum GPA of 3.00 in the major.
4. Completion of candidate portfolio, with review by advisor.
5. Exit interview with advisor.
6. Current Red Cross First Aid and CPR Card

¹ Transfer candidates and change of major/minor candidates will be allowed to enroll in 6 credits of upper division courses while completing admission requirements.

Physical Education Core (12 credits)

Physical Education majors in all emphasis areas must complete a common core. The core consists of the following courses:

Code	Title	Credits
PE 2222	First Aid CPR and Sport Safety	3
PE 2223	Foundations of Physical Education and Sport	3
PE 2243	Anatomical Foundations of Human Activity	3
PE 4454	Senior Capstone	3

Exercise Science Emphasis

68-80 credits, including Physical Education Core

Objective #1: To develop foundational knowledge in the basic sciences (33credits)

(Note: PE 2243 requirement in SSPE Core is satisfied by BIOL 3301, BIOL 3302, and labs.)

Biological Cognate: 11 credits

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
OR		
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
AND		
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
OR		
BIOL 2228 & 2228L	Human Anatomy and Physiology 2 and Human Anatomy and Physiology 2 Lab	4
BIOL 4453	Foundations in Neuroscience	3

Chemistry Cognate: 9 credits

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4

Physics Cognate: 4 credits

Code	Title	Credits
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	4

Math Cognate: 6 credits

Code	Title	Credits
MATH 1143	College Algebra ¹	3
MATH 1153	Statistical Reasoning	3

(each of the TWO courses above satisfies General Education Objective 3)

¹ MATH 1147 College Algebra and Trigonometry (5 cr) will substitute for MATH 1143.

Psychology Cognate: 3 credits

Code	Title	Credits
PSYC 1101	Introduction to Psychology (partially satisfies General Education Objective 6)	3

Objective #2: To develop specialized knowledge in human movement activities (14 credits)

Code	Title	Credits
PE 3300	Movement Theory and Motor Development	3
PE 3301 & 3301L	Physiology of Exercise and Physiology of Exercise Laboratory	4
PE 3302 & 3302L	Biomechanics and Biomechanics Laboratory	4
PE 3322	Introduction to Sport Psychology	3

Objective #3: To develop skills assessing and analyzing human movement activities (12 credits)

Code	Title	Credits
PE 3370	Care and Prevention of Athletic Injuries	3
PE 4482	Mechanical Analysis of Human Movement	3
PE 4484	Exercise Assessment and Prescription	3
PE 4490	Practicum in Physical Education	3

Objective #4: To develop knowledge and skills in cognate exercise disciplines (9 credits)

Code	Title	Credits
PE 4414	Athletic Performance Nutrition	3
Electives, chosen with advisor approval		6

Recommended Electives:

ANTH 2239	Latino Peoples and Cultures	
ANTH 4407	Anthropology of Global Health	
BIOL 2206	Cell Biology	
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	
BIOL 3305	Introduction to Pathobiology	
BIOL 3358	Genetics	
BIOL 4432	Biochemistry	
BIOL 4445	Biochemistry I	
BIOL 4449	Human Physiology I	
BIOL 4451	Immunology	
BIOL 4456	Human Physiology II	

BIOL 4460	Neuroscience	
BIOL 4463	Human Pathophysiology	
BIOL 4464	Lectures in Human Physiology	
BIOL 4470	Cross-Sectional Anatomy	
BIOL 4486	Human Systemic Physiology	
CHEM 3301	Organic Chemistry I	
CHEM 3302	Organic Chemistry II	
CHEM 4445	Biochemistry I	
DHS 4426	Evidence Based Research in Health Sciences	
ECON 4440	Economics of Health Care	
ENGL 3307	Professional and Technical Writing	
HCA 1110	Introduction to the Allied Health Professions	
HCA/HE 2210	Medical Terminology and Communication	
HCA 2215	Healthcare Leadership	
HCA 4440	Healthcare Economics and Policy	
HE 2200	Promoting Wellness	
HE 3340	Fitness and Wellness Programs	
INFO 3330	Health Informatics	
NTD 2239	Nutrition	
NTD 3340	Nutrition for Health Professionals	
NTD 3360	Nutrition Through the Lifecycle	
NTD 4439	Sports Nutrition	
OLP 4406	Grantwriting	
PE 3362	Tests and Measurements in Physical Education	
PE 4427	Personal Trainer Certification	
PE 4428	Principles of Strength and Conditioning	
PE 4494	Adapted Physical Activity	
PSCI 2205	Drugs in Society	
PSYC 2225	Child Development	
PSYC 3301	Abnormal Psychology	
PSYC 3332	Psychology of Adolescence	
SPAN 2210	Spanish for Health Care I	
SPAN 2211	Spanish for Health Care II	

Outdoor Education Emphasis

50 credits, including Physical Education Core

Physical Education Core Component (included in PE Core): 9 credits

Note: First Aid (PE 2222) core requirements are satisfied by PE 2285, Wilderness First Aid, or PE 4441, Wilderness First Responder, included below.

Leadership and Teaching Component (10 credits)

Code	Title	Credits
PE 3386	Outdoor Leadership	3
PE 4440	Survey of Outdoor Education Literature	3

PE 4445	Methods of Teaching Outdoor Activities and Practicum (4 credits required for majors)	3-4
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Outdoor Education Safety Component (8 credits)

Any of the following may be selected, but Outdoor Risk Management and Liability, Leave No Trace Trainer, and first aid certification (Wilderness First Aid, Wilderness First Responder or Emergency Medical Technician) are required.

Code	Title	Credits
PE 2271	Winter Survival Skills	1
PE 2272	Wilderness Survival Skills	1

PE 2282	Map Compass and Backcountry Navigation	1
PE 2283	Leave No Trace Trainer	1
PE 2285	Wilderness First Aid	1
PE 2286	Avalanche and Winter Sports Safety	1
PE 3381	River Safety and Swiftwater Rescue	1
PE 3383	Advanced Rock Climbing and Climbing Safety	2
PE 3384	Outdoor Risk Management and Liability	3
PE 4441	Wilderness First Responder Certification	3

Candidates who at the time of graduation possess a current certificate in Emergency Medical Technician (EMT) or Wilderness First Responder may apply three (3) credits to this component.

A) Natural History OR B) Business Component - Students may select either one or the other of the following two options:

Option A: Natural History Component (minimum of 9 credits)

(Courses in this Option are waived for majors or minors in geology, biology, botany, zoology, or ecology.)

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 2213	Fall Flora	2
BIOL 2214	Spring Flora	2
BIOL 3337	Conservation Biology	3
BIOL 4426 & 4426L	Herpetology and Herpetology Lab	4
BIOL 4427 & 4427L	Ichthyology and Ichthyology Lab	4
BIOL 4438	Ornithology	4
BIOL 4441 & 4441L	Mammalogy and Mammalogy Lab	4
BIOL 4489	Field Ecology	4
GEOL 1100	The Dynamic Earth	3
GEOL 1100L	The Dynamic Earth Lab	1
GEOL 1101	Physical Geology	3
GEOL 1101L	Physical Geology Lab	1
GEOL 4456	Geology of Idaho	2
GEOL 4491	Seminar	1
PHYS 1152	Descriptive Astronomy	3
PHYS 1153	Descriptive Astronomy Laboratory	1

Option B: Outdoor Business Component (9 credits)

(Courses in this Option are waived for business related majors or minors.)

Code	Title	Credits
BA 1110	The World of Business	3
MKTG 2225	Basic Marketing Management	3
ACCT 3303	Accounting Concepts	3

Experiential Skills Component (Minimum of 8 credits)

Courses selected must be different from those used to fulfill the requirements of the Outdoor Education Safety Component.

(Note: Only eight (8) PEAC credits can be counted towards graduation requirement.)

Code	Title	Credits
PEAC 1101	Adaptive Snow Skiing	1
PEAC 1108	Instructor Training of Adapted Snowskiing	1
PEAC 1163	Backpacking	1
PEAC 1165	Backcountry GPS Navigation	1
PEAC 1166	Canoeing	1
PEAC 1167	Kayak Touring	1
PEAC 1175A	Beginning Kayaking	1
PEAC 1176A	Beginning Rock Climbing	1
PEAC 1177A	Beginning Cross-Country Skiing	1
PEAC 1178A	Beginning Telemark Cross-Country Skiing	1
PEAC 1178B	Intermediate Telemark Cross-Country Skiing	1
PEAC 1181	Mountain Biking	1
PEAC 1182C	Advanced Dutch Oven Cooking	1
PEAC 1185	Basic Mountaineering	1
PEAC 1186B	Intermediate Fly Fishing	1
PEAC 1189	Beginning Gym Climbing	1
PEAC 1191B	Intermediate Horsemanship	1
PEAC 1194	Caving Workshop	1
PE 2200	Team Building Leadership	2
PE 2271	Winter Survival Skills	1
PE 2272	Wilderness Survival Skills	1
PE 2280	Winter Camping and Backcountry Travel	1
PE 2281	Practical Outdoor Skills	1
PE 2282	Map Compass and Backcountry Navigation	1
PE 2284	Intermediate Kayaking and Whitewater Safety	1
PE 2286	Avalanche and Winter Sports Safety	1
PE 2287	Snowboard Instructor Training	1
PE 2288	Ski Instructor Training	1
PE 3381	River Safety and Swiftwater Rescue	1
PE 3383	Advanced Rock Climbing and Climbing Safety	2
PE 4491	Physical Education Workshop ¹	1-3

¹ When workshop relates to outdoor education, i.e., Canoe Workshop (1 credit), Whitewater Rafting Workshop (1 credit), Backpacking Workshop (1 credit), Advanced Kayaking-Summer Field Experience (1 credit), Beginning Rock Climbing-Summer Field Experience (1 credit), Advanced Rock Climbing-Summer Field Experience (1 credit).

Electives (minimum of 6 credits)

Courses may include those listed in the Natural History Component, and/or Business Component, and/or the following:
(Other courses may be approved by the advisor.)

Code	Title	Credits
CMP 2201	Business and Professional Communication	3
CMP 2202	Photo, Graphic, and Video Editing	3
CMP 2241	Introduction to Public Relations	3
CMP 2251	Introduction to Photography	3

CMP 3308	Groups and Communication	3
CMP 3339	Web Design	3
ENGL 2206	Creative Writing Workshop	3
ENGL 3307	Professional and Technical Writing	3
ENGL 3308	Business Communications	3
HIST 4432	U.S. Environmental History	3
MGT 3312	Individual and Organizational Behavior	3
MGT 4441	Leading in Organizations	3
PE 3322	Introduction to Sport Psychology	3
PE 3364	Introduction to Sport Law	3
PE 3366	Sport Marketing	3
PE 4493	Issues in Sport	3
POLS 4455	Environmental Politics and Policy	3
POLS 4457	Grantwriting	3

Physical Education Teaching Emphasis (K-12 certification)

84 credits, including the Professional Education Core (39) and the Physical Education Core (9)

Candidates who have completed the required physical education teaching emphasis courses must also obtain K-12 Teacher Certification in Physical Education by completing all requirements in the Teacher Education Program.

Candidates completing the Physical Education Teaching Emphasis are not required to take the PE 4454 Senior Capstone core course.

In addition to completing departmental major requirements, candidates must make formal application and complete an interview for admission to the Teacher Education Program. See all requirements in the Teacher Education section of the College of Education (p. 211) portion of the catalog.

The Physical Education Learning Goals are aligned with 2 sets of standards: The Idaho State University College of Education Core Standards and the Content Standards in Physical Education of the National Association for Sport and Physical Education (NASPE).

NASPE Content Standards in Physical Education

The NASPE Standards identify seven areas that include the following.

The candidate completing this program:

1. Demonstrates competency in many movement forms and proficiency in a few movement forms;
2. Applies movement concepts and principles to the learning and development of motor skills;
3. Exhibits a physically active lifestyle;
4. Achieves and maintains a health-enhancing level of physical fitness;
5. Demonstrates responsible personal and social behavior in physical activity settings;
6. Demonstrates understanding and respect for differences among people in physical activity settings; and
7. Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction.

Physical Education Core Component: 9 credits

Code	Title	Credits
PE 2222	First Aid CPR and Sport Safety	3
PE 2223	Foundations of Physical Education and Sport	3
PE 2243	Anatomical Foundations of Human Activity	3

Objective #1: To develop teaching skills in a variety of areas in physical activities, athletics, and creative movement (18 credits)

Skills Component: 8 credits

Code	Title	Credits
PE 2237	Activity Performance Techniques III	3
One (1) aquatics PEAC course, examples include: ¹		
PEAC 1170A	Beginning Swimming	
PEAC 1170B	Intermediate Swimming	

One (1) Field based PEAC course, examples include:¹ 1

PEAC 1155A	Beginning Soccer	
PEAC 1158	Softball	
PEAC 1159	Ultimate Frisbee	

One (1) Court based PEAC course, example include:¹ 1

PEAC 1151A	Beginning Tennis	
PEAC 1156A	Beginning Basketball	
PEAC 1157A	Beginning Volleyball	

One (1) Lifetime activity PEAC course, examples include:¹ 1

PEAC 1122A	Beginning Yoga	
PEAC 1132A	Spinning	
PEAC 1175A	Beginning Kayaking	

One (1) additional PEAC course from the examples listed above¹ 1

¹ For a complete list, please see <https://www.isu.edu/sspe/physical-education-activity-courses/> or see your advisor.

Methods Component: 10 credits

Code	Title	Credits
PE 2281	Practical Outdoor Skills	1
PE 3357	Methods of Teaching Elementary Physical Education	3
PE 3370	Care and Prevention of Athletic Injuries	3
PE 4437	Methods of Teaching Secondary Physical Education	3

Objective #2: To acquire knowledge in the basic foundations of human activity (9 credits)

Code	Title	Credits
PE 3300	Movement Theory and Motor Development	3
PE 3303	Kinesiology for Teachers and Coaches	3
PE 4494	Adapted Physical Activity	3

Sport Management Emphasis

61 credits, including Physical Education Core**Objective #1: To understand and appreciate the physical education and sport setting (16 credits)**

Criteria for courses: Courses that fulfill this objective (a) introduce the concepts of sport and motor development, and (b) explore administrative duties in the athletic setting.

Code	Title	Credits
PE 2237	Activity Performance Techniques III	

One (1) Field based PEAC course, examples include:¹ 1

PEAC 1155A	Beginning Soccer	
PEAC 1158	Softball	
PEAC 1159	Ultimate Frisbee	

One (1) Court based PEAC course, example include:¹ 1

PEAC 1151A	Beginning Tennis	
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Objective #3: To understand and develop skills required for teaching physical education (9 credits)

Code	Title	Credits
PE 3362	Tests and Measurements in Physical Education	3
PE 4475	Organization and Administration of Physical Education	3
One of the following:		3
PE 3322	Introduction to Sport Psychology	
PE 3364	Introduction to Sport Law	

Objective #4: To understand and develop general pedagogical skills and teacher effectiveness**Professional Education Core Courses**

Refer to the College of Education Teacher Education Admission standards (p. 211) and Elementary (p. 225) and/or Secondary (p. 229) Education Core in this catalog.

PEAC 1156A	Beginning Basketball	
PEAC 1157A	Beginning Volleyball	

One (1) Lifetime activity PEAC course, examples include:¹ 1

PEAC 1122A	Beginning Yoga	
PEAC 1132A	Spinning	
PEAC 1175A	Beginning Kayaking	

Additional Coursework (10 credits):

PE 2281	Practical Outdoor Skills	1
PE 3322	Introduction to Sport Psychology	3
PE 4493	Issues in Sport	3

Approved Electives 3

PE 3300	Movement Theory and Motor Development	
PE 3301 & 3301L	Physiology of Exercise and Physiology of Exercise Laboratory	

PE 3302 & 3302L	Biomechanics and Biomechanics Laboratory
PE 3303	Kinesiology for Teachers and Coaches
PE 3357	Methods of Teaching Elementary Physical Education
PE 3362	Tests and Measurements in Physical Education
PE 3370	Care and Prevention of Athletic Injuries
PE 4437	Methods of Teaching Secondary Physical Education
PE 4494	Adapted Physical Activity

¹ For a complete list, please see <https://www.isu.edu/sspe/physical-education-activity-courses/> or see your advisor.

Objective #2: To develop leadership and management skills (15 credits)

Criteria for courses: Courses that fulfill this objective (a) introduce the concepts of leadership in the sport setting, and (b) explore administrative duties in the athletic setting.

Code	Title	Credits
PE 3364	Introduction to Sport Law	3
PE 4473	Facilities Planning and Design	3
PE 4475	Organization and Administration of Physical Education	3
CMP 3347	Sport Communication	3
Approved Electives		3
CMP 2201	Business and Professional Communication	
CMP 3302	Image Management	
CMP 3308	Groups and Communication	
CMP 3309	Communication Inquiry	
CMP 3320	Foundations of Leadership	
CMP 4422	Conflict Management	

Objective #3: To understand and interpret the business setting (15 credits)

Criteria for courses: Courses that fulfill this objective (a) provide a business perspective of the understanding of the management setting; (b) provide understanding of human resource management; and (c) provide understanding of legal implications in running a business.

Code	Title	Credits
ACCT 3303	Accounting Concepts	3
MGT 3312	Individual and Organizational Behavior	3
MGT 4473	Human Resource Management	3
or MGT 4441	Leading in Organizations	
PE 3366	Sport Marketing	3
Approved Electives		3

Code Title Credits
Possible Elective Choices:

ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
CMP 2241	Introduction to Public Relations	3
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics	3
MGT 2217	Advanced Business Statistics	3
MGT 2261	Legal Environment of Organizations	3
MGT 4441	Leading in Organizations	3
MKTG 2225	Basic Marketing Management	3
MKTG 4427	Consumer Behavior	3
POLS 4409	Community Planning	3
POLS 4441	Administrative Law	3
POLS 4442	Constitutional Law	3
POLS 4443	Civil Rights and Liberties	3
POLS 4451	Public Organizational Theory	3
POLS 4452	Budgeting and Finance	3
POLS 4454	Public Workplace Issues	3
POLS 4456	Labor Organization	3
POLS 4457	Grantwriting	3

Objective #4: To obtain practical experience in the field of sport management (3 credits)

Criteria for courses: Candidates will engage in a pre-approved 45-hour sports management internship.

Three (3) credits required.

Code	Title	Credits
PE 4490	Practicum in Physical Education	3

Minor in Coaching

The Coaching minor is modeled from the NASPE National Standards for Athletic Coaches which are intended to provide direction for administrators, coaches, athletes and the public regarding the skills and knowledge that coaches should possess. There are a total of 37 standards organized in 8 domains. The domains include: Injury Prevention, Care and Management; Risk Management; Growth, Development and Learning; Training, Conditioning and Nutrition; Social-Psychological Aspects of Coaching; Skills, Tactics and Strategies; Teaching and Administration; and Professional Preparation and Development.

To be eligible for the Coaching minor, candidates must complete 19 credits—12 credits of required courses and 7 credits of elective courses. The candidate must achieve the following in addition to completing the course requirements:

1. A minimum grade of “C” (2.0) in all required and elective minor courses.
2. A minimum GPA of 3.0 in the minor.

Required Courses (12 credits):

Code	Title	Credits
PE 3303	Kinesiology for Teachers and Coaches	3
PE 3322	Introduction to Sport Psychology	3
PE 3370	Care and Prevention of Athletic Injuries	3
PE 4480	Coaching Problems	3

Elective Courses (7 credits total):

Code	Title	Credits
Select four (4) credits:		4
PE 3312	Practical Applications of Coaching Baseball and Softball	
PE 3313	Practical Applications of Coaching Basketball	
PE 3314	Practical Applications of Coaching Football	

PE 3315	Practical Applications of Coaching Soccer
PE 3316	Practical Applications of Coaching Tennis
PE 3317	Practical Applications of Coaching Track and Field
PE 3318	Practical Applications of Coaching Volleyball
PE 3319	Practical Applications of Coaching Wrestling

Select three (3) credits: 3

PE 3300	Movement Theory and Motor Development
PE 4475	Organization and Administration of Physical Education
PE 4493	Issues in Sport

Minor in Outdoor Education

Candidates seeking a minor in outdoor education must complete a total of 22 credits from the four components below. Candidates must also achieve the following in addition to completing the course requirements:

1. A minimum grade of "C" (2.0) in all required and elective minor courses.
2. A minimum GPA of 3.0 in the minor.

Leadership and Teaching Component (9 credits):

Code	Title	Credits
PE 3386	Outdoor Leadership	3
PE 4440	Survey of Outdoor Education Literature	3
PE 4445	Methods of Teaching Outdoor Activities and Practicum (Only 3 credits required for minors)	3

Outdoor Education Safety Component (5 credits):

Code	Title	Credits
Required Course		
PE 2283	Leave No Trace Trainer	1
Electives		
Select a minimum of four (4) additional credits from the following list. One of the courses (and no more than one course) must be wilderness first aid-related.		
PE 2271	Winter Survival Skills	1
PE 2272	Wilderness Survival Skills	1
PE 2282	Map Compass and Backcountry Navigation	1
PE 2285	Wilderness First Aid	1
PE 2286	Avalanche and Winter Sports Safety	1
PE 3381	River Safety and Swiftwater Rescue	1
PE 3383	Advanced Rock Climbing and Climbing Safety	2
PE 4441	Wilderness First Responder Certification	3

Candidates who at the time of graduation possess a current certificate in Emergency Medical Technician (EMT) or Wilderness First Responder may apply three (3) credits to this component.

Natural History OR Outdoor Business Component - Students may select either one or the other of the following two options:

Option A: Natural History Component (minimum of 3 credits)

(Courses in this Option are waived for majors or minors in geology, biology, botany, zoology or ecology.)

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2209	General Ecology	4
BIOL 2213	Fall Flora	2
BIOL 2214	Spring Flora	2
BIOL 3337	Conservation Biology	3
BIOL 4426 & 4426L	Herpetology and Herpetology Lab	4
BIOL 4427 & 4427L	Ichthyology and Ichthyology Lab	4
BIOL 4438	Ornithology	4
BIOL 4441 & 4441L	Mammalogy and Mammalogy Lab	4
BIOL 4489	Field Ecology	4
GEOL 1100	The Dynamic Earth	3
GEOL 1100L	The Dynamic Earth Lab	1
GEOL 1101	Physical Geology	3
GEOL 1101L	Physical Geology Lab	1
GEOL 4456	Geology of Idaho	2
GEOL 4491	Seminar	1
PHYS 1152	Descriptive Astronomy	3
PHYS 1153	Descriptive Astronomy Laboratory	1

Option B: Outdoor Business Component (3 credits)

(Courses in this option are waived for business related majors or minors.)

Code	Title	Credits
BA 1110	The World of Business	3
MKTG 2225	Basic Marketing Management	3
ACCT 3303	Accounting Concepts	3

Experiential Skills Component

Minimum of five (5) credits required. Courses selected must be different from those used to fulfill the requirements of the Outdoor Education Safety Component.

Code	Title	Credits
PE 2200	Team Building Leadership	2
PE 2271	Winter Survival Skills	1
PE 2272	Wilderness Survival Skills	1
PE 2280	Winter Camping and Backcountry Travel	1
PE 2281	Practical Outdoor Skills	1
PE 2282	Map Compass and Backcountry Navigation	1
PE 2284	Intermediate Kayaking and Whitewater Safety	1
PE 2286	Avalanche and Winter Sports Safety	1
PE 2287	Snowboard Instructor Training	1
PE 2288	Ski Instructor Training	1
PE 3381	River Safety and Swiftwater Rescue	1
PE 3383	Advanced Rock Climbing and Climbing Safety	2

PE 4491	Physical Education Workshop ¹	1-3
PEAC 1101	Adaptive Snow Skiing	1
PEAC 1108	Instructor Training of Adapted Snowskiing	1
PEAC 1163	Backpacking	1
PEAC 1165	Backcountry GPS Navigation	1
PEAC 1166	Canoeing	1
PEAC 1167	Kayak Touring	1
PEAC 1175A	Beginning Kayaking	1
PEAC 1176A	Beginning Rock Climbing	1
PEAC 1177A	Beginning Cross-Country Skiing	1
PEAC 1178A	Beginning Telemark Cross-Country Skiing	1
PEAC 1178B	Intermediate Telemark Cross-Country Skiing	1
PEAC 1181	Mountain Biking	1
PEAC 1182C	Advanced Dutch Oven Cooking	1
PEAC 1185	Basic Mountaineering	1
PEAC 1186B	Intermediate Fly Fishing	1
PEAC 1189	Beginning Gym Climbing	1
PEAC 1191B	Intermediate Horsemanship	1
PEAC 1194	Caving Workshop	1

¹ When workshop relates to outdoor education, i.e., Canoe Workshop (1 cr), Whitewater Rafting Workshop (1 cr), Backpacking Workshop (1 cr), Advanced Kayaking-Summer Field Experience (1 cr), Beginning Rock Climbing-Summer Field Experience (1 cr), Advanced Rock Climbing-Summer Field Experience (1 cr).

Minor in Sport Management

Sport Management Standards

The Sport Management Minor is modeled to frame the NASPE-NASSM Content Standards for undergraduate Sport Management programs. The standards encompass 10 core areas that include: Behavioral Dimensions of Sport; Management and Organizational Skills; Ethics in Sport Management; Marketing in Sport; Communication in Sport; Finance in Sport; Economics in Sport; Legal Aspects of Sport; Governance in Sport; and Field Experience in a Sport Setting.

Candidates completing this minor must complete a total of 27 credits, including 21 credits of required courses and 6 approved elective credits from the courses listed below. Candidate must also achieve the following in addition to completing the course requirements:

1. A minimum grade of "C" (2.0) in all required and elective minor courses.
2. A minimum GPA of 3.0 in the minor.

Required Courses (21 credits):

Code	Title	Credits
MGT 3312	Individual and Organizational Behavior	3
MGT 4473	Human Resource Management	3
PE 3322	Introduction to Sport Psychology	3
PE 3364	Introduction to Sport Law	3

PE 3366	Sport Marketing	3
PE 4473	Facilities Planning and Design	3
PE 4490	Practicum in Physical Education	3

Sport Management Elective Courses (6 credits):

Code	Title	Credits
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
FIN 3315	Corporate Financial Management	3
MGT 2216	Business Statistics	3
MKTG 2225	Basic Marketing Management	3
MKTG 4427	Consumer Behavior	3
PE 4465	Organization and Administration of Intramural Sports	3
PE 4475	Organization and Administration of Physical Education	3
PE 4491	Physical Education Workshop ¹	1-3
PE 4493	Issues in Sport	3

¹ When workshop relates to Sport Management.

Organizational Learning and Performance

Program Description	Type	Degree
Workplace Training and Leadership, B.S. (p. 262)	Degree	B.S.
Workplace Training and Leadership - CTE Option, B.S. (p. 263)	Degree	B.S.
Workplace Training and Leadership, Minor (p. 263)	Minor	
Organizational Leadership, Baccalaureate Certificate (p. 264)	Certificate	
Career and Technical Education, Certificate (p. 264)	Certificate	
Training and Development, Certificate (p. 264)	Certificate	

Overview

The Department of Organizational Learning and Performance (OLP) offers courses to prepare students for a Bachelor of Science degree in Workplace Training and Leadership (WTL), including an optional concentration in Career and Technical Education (CTE). Two master's degrees, a Master of Science in Human Resource Development (MS HRD) and a Master of Education in

Instructional Design and Technology (MEd-IDT), are offered and described in the Graduate Catalog (<http://coursecat.isu.edu/graduate>).

The baccalaureate program in the Department of Organizational Learning and Performance, aligned with State of Idaho educational standards, provides the adult learner with opportunities to engage in the processes of inquiring, learning, and applying known competencies within the fields of Human Resource Development and Career and Technical Education. Two stand-alone baccalaureate programs described separately in the College of Education, Business Education and Family Consumer Sciences, are also in the Department of Organizational Learning and Performance.

A course grade of "C-" is the minimum acceptable grade in an Organizational Learning and Performance (OLP or CTE prefix) course and/or required course. A course grade of "D" or lower in any OLP or CTE prefix course and/or required course is unacceptable towards graduation and should be repeated.

For online information about this department and its programs, visit <https://www.isu.edu/olp/>.

Faculty (p. 261)

CTE Courses (p. 519)

OLP Courses (p. 615)

Organizational Learning and Performance Faculty

Chair and Associate Professor

Lion, Robert W.,* Department Chair and Associate Professor, Organizational Learning and Performance. B.A. 2000, Graceland University; M.S. 2002, Drake University; Ph.D. 2010, Capella University. (2012)

Professor

Scott, Karen Wilson,* Interim Dean of the Graduate School; Professor, Organizational Learning and Performance. B.A. 1974, Linfield College; M.Ed. 1999, Ph.D. 2002, University of Idaho. (2005)

Associate Professors

Coffland, David A.,* Associate Professor, Organizational Learning and Performance. B.S. 1984, Virginia Polytechnic Institute; B.S. 1986, University of Miami; M.A. 1991, Washington State University; Ed.D. 1999, Idaho State University. (1996)

Lindbeck, Robin L.,* Associate Professor, Organizational Learning and Performance. B.S. 1982, University of Wisconsin-Stout; M.Ed. 1983, Lesley College; C.A.S. 1993, Harvard University; Ed.D. 2004, Pepperdine University. (2012)

Assistant Professors

Jacobsen, Brenda L., Assistant Professor, Organizational Learning and Performance. B.S. 1994, M.Ed. 2000, Idaho State University; Ph.D. 2011, University of Idaho. (1996)

Shirmohammadi, Melika,* Assistant Professor, Organizational Learning and Performance. B.A. 2007, M.A. 2010, University of Tehran; Ph.D. 2018, Texas A&M University. (2018)

Emerita

Strickland, Jane,* Associate Professor, Informatics, and Educational Leadership and Instructional Design. 1994-2017

Sammons-Lohse, Dorothy,* Associate Professor, Organizational Learning and Performance. 1990-2019

Bachelor of Science in Workplace Training and Leadership

Credit Requirements

Credit toward the BS in Workplace Training and Leadership must be earned in two (2) specific areas:

1. *General Education* - University requirements for a BS degree: 36 credits minimum (see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).
2. *Program Core and Electives Coursework* - See requirements listed below.

Workplace Training and Leadership (WTL)

The BS in Workplace Training and Leadership is a degree for traditional students and working professionals taught entirely online with face-to-face and virtual advisements. It is sought by individuals interested in organizational learning careers, and by aspirational managers. The BS in Workplace Training and Leadership program is a flexible degree that prepares practitioners to identify and diagnose individual and organizational needs; to design, implement, and evaluate learning, development; and change strategies to improve performance. The degree is comprised of WTL Program Core courses, WTL Approved Elective courses, General Education courses, and Free Electives. The WTL Elective courses will be tailored to the individual's degree plan to complement the student's career choice and must be approved by the WTL advisor and may include competency-based experience courses, upper and some lower division courses (OLP and non-OLP coursework), and minors in disciplines complementary to the student's career path. Other courses than those listed for WTL Electives will be considered in consultation with a WTL faculty member.

Minimum Requirements:

Code	Title	Credits
	General education requirements for a BS Degree	37
	WTL Program Core	33
	WTL Approved Electives	24
	Free Electives	26
	Total Credits	120

A grade of C- or higher is required for WTL Program Core and WTL Approved Electives.

Code	Title	Credits
	WTL Program Required Core Courses:	33
OLP 3331	Theories and Models of Leadership	3
OLP 4401	Foundations of Human Resource Development	3
OLP 4402	Analysis and Course Construction	3
OLP 4403	Methods of Training	3
OLP 4404	Evaluating Training	3
OLP 4407	Instructional Technology in Human Resource Development	3
OLP 4409	Professional Readings and Writing in Human Resource Development	3
OLP 4410	Principles of Change	3
OLP 4431	Workplace Leadership	3

OLP 4450	Principles of Adult Education	3
OLP 4465	Practicum in Workplace Training and Leadership (or Advisor Approved Course)	3

Code	Title	Credits
	WTL Approved Electives:	24

Select one of the following options. Option 1 is for students who are eligible for Competency-Based Equivalency (CBE).

Option 1: CBE Eligible

OLP 2210	Competency-Based Equivalency I AND	
OLP 3310	Competency-Based Equivalency II	

OR

Option 2: Non-CBE Eligible

Select at least 24 Upper Division APPROVED credits. (See the following list for examples of acceptable courses; list is not exhaustive.)¹

CMP 3308	Groups and Communication	
CMP 3320	Foundations of Leadership	
EMGT 3301	Incident Command System Advanced	
MGT 3312	Individual and Organizational Behavior	
MGT 4441	Leading in Organizations	
OLP 4405	Learning Fundamentals	
OLP 4406	Grantwriting	
OLP 4411	Consulting Skills in Human Resource Development	
OLP 4444	Ethics and Diversity in the Workplace	
OLP 4452	Reframing Organizations	
OLP 4453	Employee Engagement and Motivation	
OLP 4457	Facilitating Adult Learning	
OLP 4464	Facilities Management	
POLS 3313	Introduction to Political Philosophy	
POLS 3331	Comparative Politics Framework for Analysis	
POLS 4409	Community Planning	
PSYC 3341	Social Psychology	
PSYC 3344	Adult Development and Aging	
PSYC 4445	Learning and Behavior	
SOC 3301	Classical Social Theory	

¹ Students are to consult with their faculty advisors to choose 24 credits of courses that will complement their intended career.

Code	Title	Credits
	Free Elective Courses	26

The remaining 26 credits will be the student's choice.

B.S. in Workplace Training and Leadership - Career and Technical Teacher Education Option (WTL-CTE)

The Workplace Training and Leadership with a Career and Technical Teacher Education (WTL-CTE) option prepares persons for instructional responsibilities in career and technical education. The program includes content applicable to State of Idaho standards for Career and Technical educators. It emphasizes teaching career and technical subject areas in secondary and post-secondary institutions.

The degree is comprised of WTL-CTE Program Core courses, WTL-CTE Approved Elective courses, General Education courses, and Free Electives. The WTL-CTE Elective courses will be tailored to the individual's degree plan to complement the student's career choice and must be approved by the WTL-CTE advisor. WTL-CTE Electives may include: Technical Specialization courses (from AAS, AS, certification, apprenticeship, ACE, or similar accredited occupational program), competency-based experience courses, and upper and some lower division courses (OLP and non-OLP coursework) complementary to the student's career path. Other courses than those listed for WTL-CTE Approved Electives will be considered in consultation with a WTL-CTE faculty member.

Technical Specialization Coursework

Students enrolled in the WTL-CTE option may count 0-18 credits in a technical specialization degree or certificate in an occupational area recognized as a specialization offered in a post-secondary career and technical system towards Elective credits.

Code	Title	Credits
WTL-CTE Option Minimum Requirements:		
General education requirements for a BS Degree		37
WTL-CTE Program Core		33
Electives (including Technical specialization - maximum of 18 credits)		50
Total Credits		120

Code	Title	Credits
WTL-CTE Option Required Core Courses:		
OLP 3331	Theories and Models of Leadership	3
CTE 4401	Foundations of Career and Technical Education	3
CTE 4402	Analysis and Course Construction	3
CTE 4403	Methods of Teaching in Career and Technical Education	3
CTE 4404	Evaluation in Career and Technical Education	3
OLP 4410	Principles of Change	3
OLP 4431	Workplace Leadership	3

CTE 4444	Career Guidance and Special Needs Career and Technical Education	3
OLP 4450	Principles of Adult Education	3
CTE 4464	Career and Technical Education Instructional Facilities Management	3
CTE 4467	Practicum: Student Teaching	3
Technical Specialization		18 (max)
OLP 2220	Technical Education Equivalency	1-18

Code	Title	Credits
WTL-CTE Option Approved Electives:		24

Select one of the following options. Option 1 is for students who are eligible for Competency-Based Equivalency (CBE).

Option 1: CBE Eligible

OLP 2210 Competency-Based Equivalency I (12 credits)

AND

OLP 3310 Competency-Based Equivalency II (12 credits)

OR

Option 2: Non-CBE Eligible

Select at least 24 Upper Division APPROVED credits * (See following list for examples of acceptable courses; list is not exhaustive)

CMP 3308	Groups and Communication
CMP 3320	Foundations of Leadership
MGT 3312	Individual and Organizational Behavior
OLP 4405	Learning Fundamentals
OLP 4406	Grantwriting
OLP 4407	Instructional Technology in Human Resource Development
OLP 4409	Professional Readings and Writing in Human Resource Development
OLP 4411	Consulting Skills in Human Resource Development
CTE 4443	Supervision and Organization of Career and Technical Student Organizations
OLP 4452	Reframing Organizations
OLP 4453	Employee Engagement and Motivation
OLP 4457	Facilitating Adult Learning
PSYC 3341	Social Psychology
PSYC 4445	Learning and Behavior

Minor in Workplace Training and Leadership

The minor in Workplace Training and Leadership is intended to provide non-WTL and WTL-CTE majors interested in workplace training functions with a

suite of skills, knowledge, and experiences in training (design, development,

and delivery), and development, which are considered the non-training human development activities in which organizations (private, public, education) engage.

Intended Audience – Non-WTL majors from degrees including, but not limited to Business, Communications, and Health Sciences; students who have an interest in working in a training or leadership role within their respective industry/field of practice.

Code	Title	Credits
Required Courses		
OLP 4402	Analysis and Course Construction	3
OLP 4403	Methods of Training	3
OLP 4404	Evaluating Training	3
OLP 4410	Principles of Change	3
OLP 4431	Workplace Leadership	3

Workplace Training and Leadership Electives

Baccalaureate Certificate in Organizational Leadership

Pursue the baccalaureate certificate offered in the Department of Organizational Learning and Performance by applying for admission to the BS in Workplace Training and Leadership (BS WTL). The certificate may be earned alone or as part of the BS WTL. The baccalaureate certificate in Organizational Leadership is intended for career professionals seeking middle leadership career paths. This certificate prepares rising professionals and develops their potential for leadership positions within businesses and industries.

Intended Audience – Career professionals seeking middle leadership positions.

Code	Title	Credits
Required Courses		
OLP 3331	Theories and Models of Leadership	3

Certificate in Career and Technical Education

Code	Title	Credits
CTE 4401	Foundations of Career and Technical Education	3
CTE 4402	Analysis and Course Construction	3
CTE 4403	Methods of Teaching in Career and Technical Education	3
CTE 4404	Evaluation in Career and Technical Education	3

Select three (3) credits from the following eligible CTE Certificate Elective courses:

CTE 4443	Supervision and Organization of Career and Technical Student Organizations	3
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Certificate in Training and Development

Code	Title	Credits
OLP 4402	Analysis and Course Construction	3
OLP 4403	Methods of Training	3
OLP 4404	Evaluating Training	3

Plus six (6) additional credits from any of the following courses		6
OLP 3331	Theories and Models of Leadership	
OLP 4401	Foundations of Human Resource Development	
OLP 4407	Instructional Technology in Human Resource Development	
OLP 4409	Professional Readings and Writing in Human Resource Development	
OLP 4411	Consulting Skills in Human Resource Development	
OLP 4452	Reframing Organizations	
OLP 4453	Employee Engagement and Motivation	
Total Credits		21

OLP 4401	Foundations of Human Resource Development	3
or OLP 2231	Introduction to Leadership	
OLP 4410	Principles of Change	3
OLP 4431	Workplace Leadership	3
Organizational Leadership Certificate Elective		
Plus three (3) additional credits from any faculty approved WTL (or aligned) courses		3
Total Credits		15

CTE 4444	Career Guidance and Special Needs Career and Technical Education	
OLP 4406	Grantwriting	
BED 3341	Leadership and Advising in Career Technical Student Organizations I	
BED 3342	Leadership and Advising in Career Technical Student Organizations II	
BED 3343	Leadership and Advising in Career Technical Student Organizations III	
Total Credits		15

OLP 4407	Instructional Technology in Human Resource Development	3
or OLP 4450	Principles of Adult Education	
Select three (3) credits from the following eligible T&D Certificate Elective courses, or advisor-approved courses:		3

OLP 4409	Professional Readings and Writing in Human Resource Development
OLP 4411	Consulting Skills in Human Resource Development
OLP 4444	Ethics and Diversity in the Workplace
OLP 4452	Reframing Organizations
OLP 4453	Employee Engagement and Motivation
Total Credits	15

Kasiska Division of Health Sciences

Mission Statement

Idaho State University's Kasiska Division of Health Sciences provides leadership in the delivery of rural health care by **educating caring and competent professionals** across **all dimensions of health** and promoting interprofessional **research and practice** in the health sciences.

Vision

The Kasiska Division of Health Sciences is a destination site for health profession education.

Core Values

Professional Integrity - Promoting professional ethical standards and respecting the integrated roles of all health professionals.

Holistic Approach to Health - Emphasizing a comprehensive view of human health, including curative and preventive dimensions.

Collaboration - Recognizing the value of internal and external partnerships through professional and community engagement.

Discovery and Innovation - Seeking new evidence to improve health.

Dedication - Supporting the mission and vision of the KDHS.

Excellence - Striving for excellence in all aspects of professional, academic and personal endeavors.

Goal Areas

Goal 1 - To provide high quality programs that are efficient, cost effective, and student oriented.

Goal 2 - To create an environment conducive to inquiry.

Goal 3 - To facilitate interprofessional health services to the community.

Goal 4 - To expand/improve the image and reach of the KDHS as a destination site for health professions education.

Overview

Idaho State University's Kasiska Division of Health Sciences (KDHS) provides continued leadership in the delivery of health care by educating caring and competent professionals across all dimensions of health. The KDHS is also committed to promoting collaborative research and interprofessional practice in the health sciences.

Idaho State University is Idaho's health care university, as designated by the Idaho State Board of Education, and offers 75 percent of the state's health profession degree programs. One third of Idaho State University's graduates receive degrees in the health professions.

The majority of the University's health profession programs are housed in the Kasiska Division of Health Sciences. Nineteen health professional programs, including 35 degrees/options, make up the Division. Several of the Division's programs are offered on both the Pocatello and Meridian campuses, and a number of degrees are offered in an online format. Programs partner with hospitals, clinics, and specialized medical facilities throughout the state and nation to provide state-of-the-art training opportunities and clinical rotations for our students.

A mix of classroom and clinical experiences ensures that graduates are prepared for licensing exams and positions in a wide range of health care fields. On-campus and statewide clinics provide students with hands-on training. Fourteen in-house clinics include medicine, dentistry, dental hygiene, audiology, speech pathology, counseling, occupational therapy, physical therapy, vestibular (balance), and wellness. Beyond the basic skill sets associated with clinical practice, we train our students to become leaders in their professions and communities. Doing this requires hiring and retaining nationally recognized faculty, using the most current teaching technologies, and giving students access to the hands-on learning opportunities they need for success.

The Kasiska Division of Health Sciences is organized into four colleges:

- College of Health Professions
- College of Nursing
- College of Pharmacy
- College of Rehabilitation and Communication Sciences

Pre-Health Professions Advising (p. 268)

Idaho State University offers advising for pre-health professional students, which prepares them for application to and acceptance by a variety of health professional schools. Health professional programs for which advising is offered include: dentistry, medicine, osteopathic medicine, optometry, podiatric medicine, veterinary medicine, physical therapy, occupational therapy, chiropractic, and physician assistant. For students interested in one of the health professional programs offered at Idaho State University, such as medical laboratory science, counseling, dental hygiene, family medicine, health and nutrition sciences, health care administration, nursing, physical therapy, physician assistant, pharmacy, radiographic science, and speech pathology and audiology, the Pre-Health Advisor will refer the students to the appropriate department or college for additional information.

Bachelor of Science in Health Science (p. 270)

The Bachelor of Science in Health Science degree is offered at ISU through the Kasiska Division of Health Sciences in cooperation with the College of Health Professions, College of Rehabilitation and Communication Sciences, and the College of Technology. The Bachelor of Science in Health Science degree provides several pathways for students, depending on their ultimate educational and career goals. The choice of five different areas of concentration allows students flexibility in meeting their professional goals.

The objectives of this multidisciplinary degree are to prepare marketable students for entry-level employment in the health care field and to prepare students for admission to professional schools or graduate programs.

Kasiska Division of Health Sciences Leadership (p. 267)

Kasiska Division of Health Sciences Leadership

Vice President for Health Sciences

Force, Rex W. * Vice President for Health Sciences; Director, Pocatello Family Medicine Clinical Research Center; Professor, Pharmacy Practice and Administrative Sciences. B.S. 1988, Oregon State University; Pharm.D. 1991, University of Texas Health Science Center at San Antonio. (1993)

Associate Vice President - Meridian

Marincic, Patricia Z. * Associate Vice President, Kasiska Division of Health Sciences; Professor, Department of Dietetics. B.S. 1982, Purdue University; M.S. 2002, Colorado State University; Ph.D., Utah State University. (2017)

Interim Associate Vice President - Pocatello

Seikel, John Anthony "Tony," Interim Associate Vice President, Kasiska Division of Health Sciences; Professor, Communications Sciences & Disorders. 1998-2015

Interim Dean, College of Pharmacy

Owens, Christopher T. * Interim Dean, College of Pharmacy, Kasiska Division of Health Sciences; Associate Professor, Pharmacy Practice and Administrative Sciences. B.A. 1998, Utah State University; Pharm.D. 2002 and M.P.H., 2013 Idaho State University. (2003)

Interim Dean, College of Nursing

Neill, Karen S. * Interim Dean, College of Nursing; Professor, School of Nursing; Associate Director of Graduate Studies. B.S. in Nursing, 1982; M.S. in Nursing, 1985; Ph.D. in Pharmaceutical Sciences, 1994, Idaho State University. (1985)

Dean, College of Rehabilitation and Communication Sciences

Kangas, Kathleen A. * Dean, College of Rehabilitation and Communication Sciences; Professor, Communication Sciences & Disorders. B.S. 1974, Northern Michigan University; M.S.P.A. 1977, University of Washington, Seattle; Ph.D. 1990, Purdue University. (1990)

Dean, College of Health Professions

McKnight, Laura, Dean, College of Health Professions; Clinical Associate - Professor, Dietetics. B.S. 1986; M.P.H. 1999, Idaho State University. (1994)

Associate Dean, Graduate Medical Education (GME) and Professional Relations

Woodhouse, William, Associate Dean, Graduate Medical Education (GME) and Professional Relations; Clinical Professor, Department of Family Medicine. B.S. 1979, University of Iowa; M.D. 1983, University of Iowa College of Medicine. (1994)

Emeriti

Hatzenbuehler, Linda * Executive Dean and Associate Vice President, Division of Health Sciences. 1976-2016

Piland, Neill F. * Director and Research Professor, Institute of Rural Health. 2002-2017

Pre-Health Professions Advising

Idaho State University offers advising for pre-health professional students which prepares them for application to and acceptance by a variety of health professional schools. Health professional programs for which advising is offered include: dentistry, medicine, osteopathic medicine, optometry, podiatric medicine, veterinary medicine, physical therapy, occupational therapy, chiropractic, and physician assistant. For students interested in one of the health professional programs offered at Idaho State University, such as medical laboratory science, counseling, dental hygiene, family medicine, health and nutrition sciences, health care administration, nursing, physical therapy, physician assistant, pharmacy, radiographic science, and speech pathology and audiology, the Pre-Health Advisor will refer the students to the appropriate department or college for additional information.

The Pre-Health Professions Advising Office is located in the Beckley Nursing Building, Room 307B, (Building #66 on the Idaho State University map). Students who plan to apply to one of the professional schools listed above should establish and maintain close contact with the Pre-Health Advisor throughout their undergraduate program at Idaho State University. The Pre-Health Advisor monitors students' progress through their degree programs and the health professional prerequisite courses, provides information about application procedures, and organizes informational meetings, workshops, and speakers on specific health professions. The advisor also chairs the Pre-Health Professions Advisory Committee that provides interviews to prepare students for the health professional programs application processes.

Pre-Health Advisor: Jacque Baergen

In general, health professional schools have no preference for specific academic majors. Instead, they prefer that applicants major in a defined academic area (biology, chemistry, psychology, economics, for example) and concurrently satisfy the prerequisite courses for the specific health professional school. Pre-Health professional students should consult with the Pre-Health Advisor or a member of the Pre-Health Professions Advisory Committee in order to successfully combine an academic major with a pre-health professional program. It is strongly recommended that pre-professional students develop a strong background in courses such as those listed below. Courses required by most health professional schools include, but are not limited to, the following, many of which also satisfy General Education Objectives (p. 57):

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	4
BIOL 4432	Biochemistry	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 3301	Organic Chemistry I	3
CHEM 3302	Organic Chemistry II	3
CHEM 3303	Organic Chemistry Laboratory I	1
CHEM 3304	Organic Chemistry Laboratory II	1
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I Writing and Rhetoric I Plus	3-4

ENGL 1102	Writing and Rhetoric II	3
PHYS 1111	General Physics I	3
PHYS 1112	General Physics II	3
PHYS 1113 & PHYS 1114	General Physics I Laboratory and General Physics II Laboratory	2
PSYC 1101	Introduction to Psychology	3
and/or		
SOC 1101	Introduction to Sociology	3

(Departmental prerequisites may apply to some of these courses.)

In addition to completing specified prerequisite courses, most health professional schools require that the pre-professional student obtain practical experience in the health professional field she or he plans to enter, and take a national standardized admission test. Specific information about the national exams and acceptable practical experiences are included in the sections below.

Chiropractic

The undergraduate courses listed above provide some guidance for the pre-chiropractic student. However, significant differences in pre-requisite coursework by the various chiropractic schools require that students obtain a specific list of requirements for each school. The most current admission requirements for chiropractic schools are described on the schools' websites, which can be accessed through the Association of Chiropractic Colleges website at <http://www.chirocolleges.org>.

Dentistry

The Idaho State University courses listed above provide a core for pre-dental requirements of most dental schools. However, some dental schools have additional requirements. The most current admission requirements for each dental school are described on the schools' websites, which can be accessed through the American Dental Education Association website at <http://www.adea.org>, or by consulting the latest edition of "ADEA Official Guide to Dental Schools," published by the American Dental Education Association, 655 K Street, NW, Suite 800, Washington, D.C. 20001. A copy of this guide is available in the Pre-Health Professions Advising Office. All dental applicants must take the Dental Admission Test (DAT), and have shadowed a practicing dentist prior to applying to the individual schools of dentistry.

Cooperative Program with the Creighton University School of Dentistry

In the fall of 1982, Idaho State University and the Creighton University School of Dentistry implemented a decentralized dental education program, the Idaho Dental Education Program (IDEP). Under this program, up to 8 seats per year at the Creighton University School of Dentistry are reserved for Idaho residents. The first professional year of the dental school program is on the Idaho State University campus in Pocatello. The students then move to the Creighton University School of Dentistry in Omaha, NE for the second, third, and fourth professional years. Idaho residents who wish to be considered for IDEP must apply to Creighton University School of Dentistry and meet all other admission requirements.

Allopathic Medicine

The undergraduate courses required by most medical schools are the same as those described above. However, many medical schools have additional requirements. The most current admission requirements for each medical

school are described on the individual schools' websites, which can be accessed through the Association of American Medical Colleges (AAMC) website at <http://www.aamc.org>, or by subscribing to the "Medical School Admission Requirements, USA and Canada," updated by the Association of American Medical Colleges, One Dupont Circle NW, Washington, D. C. 20036. This information is available in the Pre-Health Professions Advising Office. All medical applicants must take the Medical College Admission Test (MCAT), and have shadowed a practicing physician prior to applying to the individual schools of medicine.

Cooperative Program with the University of Washington School of Medicine

Idaho residents are eligible for the Washington-Wyoming-Alaska-Montana-Idaho (WWAMI) decentralized medical education program of the University of Washington School of Medicine. Currently, the University of Washington reserves 40 seats for Idaho residents, and accepted students are charged an Idaho tuition rate. Idaho residents who wish to be considered for the WWAMI program must apply to the University of Washington School of Medicine, and meet all other admission requirements. Additional information about the WWAMI program is available in the Pre-Health Professions Advising Office.

WWAMI Idaho TRUST - As part of the application process, Idaho WWAMI students can now apply to participate in a focused rural and urban under-served track. The goal of this track, called Idaho TRUST (Targeted Rural Under-served Track), is to allow for a focused medical school experience in rural and urban under-served care, with the eventual goal of returning physicians to practice in the rural and urban under-served areas of Idaho.

Idaho TRUST students will have multiple opportunities to experience firsthand the joys and satisfaction of practicing medicine in a rural or urban under-served community. More information is available through the TRUST website: <https://depts.washington.edu/fammed/education/program/trust> (<https://depts.washington.edu/fammed/education/programs/trust>).

Cooperative Program with the University of Utah School of Medicine

Idaho residents are eligible to compete for 10 reserved seats at the University of Utah School of Medicine, and those accepted under this program pay an Idaho tuition rate. To be considered for this program, students must apply to the University of Utah School of Medicine, and meet all other admission requirements. Additional information about the Idaho agreement with the University of Utah School of Medicine is available in the Pre-Health Professions Advising Office.

Osteopathic Medicine

Admission requirements and undergraduate prerequisite courses for schools of osteopathic medicine are nearly identical to those described under medicine. More information about osteopathic medicine and admission requirements for the individual schools of osteopathic medicine can be found at the American Association of Colleges of Osteopathic Medicine (AACOM) website at <http://www.aacom.org> or by consulting the latest edition of "Osteopathic Medical College Information Book," published by the American Association of Colleges of Osteopathic Medicine, 1090 Vermont Ave, NW, Suite 500, Washington, DC 20005. A copy of this publication is available in the Pre-Health Professions Office. All osteopathic medical applicants must take the Medical College Admission Test (MCAT), and have shadowed a practicing physician prior to applying to the individual schools of osteopathic medicine.

Occupational Therapy, Physical Therapy, Physician Assistant

Advising for each of these professions is available at Idaho State University. Specific pre-professional requirements for these programs can be obtained in the Physical and Occupational Therapy (<http://coursecat.isu.edu/undergraduate/divisionhealth/physicalandoccupationaltherapy>) section and Physician Assistant Studies (<http://coursecat.isu.edu/undergraduate/divisionhealth/physicianassistantstudies>) section of this catalog.

Students may be advised in satisfying prerequisites not only for these programs at Idaho State University, but also for programs in the same profession located at other institutions. Students may consult with the Pre-Health Advisor for information about prerequisites for admission to these programs at other institutions. Prerequisites for professional programs at other institutions can be met by courses taken at Idaho State University.

Optometry

The undergraduate courses listed above provide some guidance for the pre-optometry student. However, significant differences in pre-optometry requirements by the various optometry schools require that students obtain a specific list of requirements for each optometry school. The most current admission requirements for optometry schools are described on the schools' websites, which can be accessed through the Association of Schools and Colleges of Optometry (ASCO) website at <http://www.opted.org>, or by consulting the latest edition of "Schools and Colleges of Optometry Admission Requirements." This is an electronic publication available on the ASCO website. All optometry applicants must take the Optometry Admission Test (OAT).

Podiatric Medicine

The undergraduate courses listed above are required by most podiatric medical schools. However, some podiatric medical schools may have additional requirements. The most current admission requirements for podiatric medical schools are described on the schools' websites, which can be accessed through the American Association of Colleges of Podiatric Medicine website at <http://www.aacpm.org>, or by consulting the latest edition of "Podiatric Medical Education," available from the American Association of Colleges of Podiatric Medicine, 15850 Crabbs Branch Way, Suite 320, Rockville MD 20855. A copy of this publication is available in the Pre-Health Professions Office. All podiatric medical applicants must take the Medical College Admission Test (MCAT). In addition, most schools of podiatric medicine expect applicants to have shadowed a practicing podiatrist prior to applying to the individual schools of podiatry.

Veterinary Medicine

The undergraduate courses listed above provide some guidance for the pre-veterinary medicine student. However, significant differences in pre-veterinary requirements by the various schools of veterinary medicine require that students obtain a specific list of requirements for each school. The most current admission requirements for veterinary medicine schools are described on the schools' websites, which can be accessed through the Association of American Veterinary Medical Colleges (AAVMC): <http://www.aavmc.org>. Veterinary medicine applicants must take the General Test of the Graduate Record Exam (GRE), and have volunteer experience with a practicing veterinarian prior to applying to the individual schools of veterinary medicine.

Idaho residents should be aware that a long term agreement has been reached among the states of Washington, Oregon, and Idaho (WOI) to share responsibility for the curriculum and program at the Washington State University College of Veterinary Medicine. The WOI program gives admissions preference to 11 Idaho residents. Students who are not residents of Idaho or any students who wish to

apply to other schools of veterinary medicine should consult with the Pre-Health Advisor concerning the proper development of a pre-veterinary medical program at Idaho State University.

Websites of Interest to Pre-Health Professions Students

Most health professions have national associations that maintain detailed websites with information about the profession, the professional schools, and admissions information. The list below includes websites most commonly used by the pre-health professions students.

Chiropractic

- Association of Chiropractic Colleges: <http://www.chirocolleges.org>

Dentistry

- American Dental Association: <http://www.ada.org>
- American Dental Education Association: <http://www.adea.org>

Medicine

Allopathic (M.D.)

- Association of American Medical Colleges (AAMC): <http://www.aamc.org>

Osteopathic (D.O.)

- American Association of Colleges of Osteopathic Medicine (AACOM): <http://www.aacom.org>

Podiatric (D.P.M.)

- American Association of Colleges of Podiatric Medicine (AACPM): <http://www.aacpm.org>

Occupational Therapy

- American Occupational Therapy Association: <http://www.aota.org>

Optometry

- Association of Schools and Colleges of Optometry (ASCO): <http://www.opted.org>

Physical Therapy

- American Physical Therapy Association (APTA): <http://www.apta.org>

Physician Assistant

- American Academy of Physician Assistants: <http://www.aapa.org>
- Physician Assistant Education Association: <http://www.paeonline.org>

Veterinary Medicine

- Association of American Veterinary Medical Colleges (AAVMC): <http://www.aavmc.org>

Bachelor of Science in Health Science

Program Description	Type	Degree
Health Science, B.S. with Concentration in Health Science (p. 275)	Degree	B.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.
Health Science, B.S. with Concentration in Emergency Medical Services (p. 273)	Degree	B.S.
Health Science, B.S. with Concentration in Pre-Occupational Therapy, Accelerated (p. 344)	Degree	B.S.
Health Science, B.S. with Concentration in Pre-Occupational Therapy (p. 343)	Degree	B.S.

The Bachelor of Science degree in Health Science is offered at ISU through the Kasiska Division of Health Sciences in cooperation with the College of Health Professions, College of Communication and Rehabilitation Sciences and the College of Technology. The Bachelor of Science degree in Health Science provides several pathways for students, depending on their ultimate educational and career goals. The choice of five different areas of concentration allows students flexibility in meeting their professional goals.

The objectives of this multidisciplinary degree are to prepare marketable students for entry-level employment in the health care field and to prepare students for admission to professional schools or graduate programs.

The program consists of a core set of requirements with additional requirements for each concentration.

B.S. Health Science Core

Students pursuing a Bachelor of Science in Health Science must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General

Education Requirements (p. 57) in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and the requirements for one of the health science concentrations. All graduates of this program will earn a B.S. in Health Science, irrespective of which concentration is selected.

Required Courses (12 credits)

Code	Title	Credits
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
HE/HCA 2210	Medical Terminology and Communication	2
or HO 0106		
	Medical Terminology	

Professional Competencies (3 credits)

Code	Title	Credits
Select ONE:		
HCA 2215	Healthcare Leadership	3

HCA 4475	Health Law and Bioethics	3
HO 0107	Medical Law and Ethics	3
PHIL 2230	Medical Ethics	3

Health Care (3 credits)

Code	Title	Credits
Select ONE:		
HCA 1115	US Health System	3
HCA 3340	Healthcare Policy	3

Communication (2-3 credits)

Code	Title	Credits
Select ONE:		
ANTH 4409	Clinical Medical Anthropology	3
CMP 3308	Groups and Communication	3
CMP 4422	Conflict Management	3
COUN 3300	Interpersonal Skills in Health Professions	2
ENGL 3307	Professional and Technical Writing	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4425	Patient Education Skills	2

Diversity (0-3 credits)

Some courses in this group also fulfill one of the three previous competency areas. The credits for these courses are not counted twice if the course was chosen to complete an earlier core area.

Code	Title	Credits
Select ONE:		
ANTH 4407	Anthropology of Global Health	3
ANTH 4409	Clinical Medical Anthropology	3
COUN 3300	Interpersonal Skills in Health Professions	2
HCA 4475	Health Law and Bioethics	3
HE 4425	Patient Education Skills	2

Students must have a 2.0 gpa over all BS Health Science Core courses with no grades below a C-.

College of Health Professions

Program Description	Type	Degree
Dental Hygiene, B.S. (p. 286)	Degree	B.S.
Dietetics, B.S. (p. 307)	Degree	B.S.
Dietetic Internship (DI), Post-Baccalaureate Certificate (p. 308)	Certificate	
Emergency Management, A.S. (p. 291)	Degree	A.S.
Emergency Management, B.S. (p. 291)	Degree	B.S.
Emergency Management, Minor (p. 292)	Minor	
Fire Services Administration, A.S. (p. 294)	Degree	A.S.
Fire Services Administration, B.S. (p. 294)	Degree	B.S.
Paramedic Science, A.S. (p. 299)	Degree	A.S.
Paramedic Science, Certificate (p. 299)	Certificate	
Community Paramedic, Certificate (p. 299)	Certificate	
Health Science, B.S. EMS Concentration (p. 273)	Degree	B.S.
Health Science, B.S. Health Science Concentration (p. 275)	Degree	B.S.
Medical Lab Science, B.S. (p. 303)	Degree	B.S.
Community and Public Health, B.A. or B.S., Community Health Concentration (p. 279)	Degree	B.A. or B.S.
Community and Public Health, B.A. or B.S., Addiction Studies Concentration (p. 278)	Degree	B.A. or B.S.
Community and Public Health, B.A. or B.S., School Health Concentration (p. 280)	Degree	B.A. or B.S.
Community and Public Health, Teaching Minor (p. 281)	Minor	
Community and Public Health, Non-Teaching Minor (p. 281)	Minor	
Idaho Dental Education Program (p. 289)	Other	

Interprofessional Geriatric Certificate
(p. 276) Certificate

Radiographic Science, B.S. (p. 312) Degree B.S.

Diagnostic Medical Sonography, Certificate
(p. 313) Certificate

Overview

Students in the CHP engage challenging and contemporary curricula under the direction of highly skilled and nationally-recognized faculty. All programs in the CHP are nationally accredited and graduates across all programs boast high employment/placement rates. CHP graduates are highly regarded by their employers; many have become prominent leaders in their fields.

Academic programs within the CHP represent some of the fastest growing occupations across the nation.

chp@isu.edu
garneliz@isu.edu
208-282-3992
208-282-4645 fax

650 Memorial Drive
Bldg 66, Room 202
Pocatello, ID

Mailing Address:
921 S 8th Ave Stop 8090
Pocatello, ID 83209-8090

Leadership (p. 272)

DHS courses (p. 546)

College of Health Professions Leadership

Laura McKnight, MPH, RD, LD
Dean, College of Health Professions
Clinical Associate Professor, Dietetics

Elizabeth Fore, PhD
Department of Community and Public Health, Department Chair
Assistant Professor

David Kleist, PhD
Department of Counseling, Department Chair
Professor

Jacque Freudenthal, RDH, MHE
Department of Dental Hygiene, Department Chair
Associate Professor

Brian Crawford, OMOH
Department of Dental Sciences, Department Chair
Coordinator, Program Director

Barbara Gordon, MBA, RDN, LD
Dietetics Program, Program Director
Clinical Associate Professor

Michael Mikitish
Department of Emergency Services
Department Chair

Brandon Mickelsen, DO
Department of Family Medicine Residency, Director
Clinical Professor

Rachel Hulse, MS, MLS (ASCP)cm
Medical Laboratory Science Program, Program Director
Clinical Assistant Professor

Paula Phelps, MHE, PA-C
Physician Assistant Studies Program, Program Director
Associate Professor

Christopher Wertz, MSRS, RT (R) (AART)
Radiographic Science Program, Program Director
Assistant Professor

B.S. Health Science

Program Description	Type	Degree
Health Science, B.S. with Concentration in Health Science (p. 275)	Degree	B.S.
Health Science, B.S. with Concentration in Emergency Medical Services (p. 273)	Degree	B.S.

The College of Health Professions offers two concentrations in the Bachelor of Science degree in Health Science.

The objectives of the multidisciplinary B.S in Health Science degree is to prepare marketable students for entry-level employment in the health care field and to prepare students for admission to professional schools or graduate programs.

B.S. Health Science, Emergency Medical Services Concentration

Program Admissions Requirements

Students must be a graduate of or be enrolled in a health related program that awards an associate degree in Paramedic Science.

General Education

General Education requirements are met with an A.S. in Paramedic Science.

Core Requirements

Code	Title	Credits
Choose one of the following:		4
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially fulfills Objective 5)	
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
(BIOL 3301 has a prerequisite of BIOL 1101 or BIOL 2227, either of which will partially fulfill Objective 5.)		
DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
Choose one of the following:		2
HE/HCA 2210	Medical Terminology and Communication	
HO 0106	Medical Terminology	
Professional Competencies - Choose one of the following:		3
HCA 2215	Healthcare Leadership	
HCA 4475	Health Law and Bioethics ¹	
HO 0107	Medical Law and Ethics	
PHIL 2230	Medical Ethics	
Healthcare Competencies - Choose one of the following:		3
HCA 1115	US Health System	
ECON 4440	Economics of Health Care	
HCA 3340	Healthcare Policy ¹	
Communication Competencies - Choose one of the following:		3
ANTH 4409	Clinical Medical Anthropology	
CMP 3308	Groups and Communication	
CMP 4422	Conflict Management	

COUN 3300	Interpersonal Skills in Health Professions	
ENGL 3307	Professional and Technical Writing ¹	
HE 4410	Health Behavior Change Theory and Application	
HE 4425	Patient Education Skills	
Diversity Competencies - Choose one of the following:		0-3

Some courses in this group also fulfill one of the three previous competency areas. The credits for these courses are not counted twice if the course was chosen to complete an earlier core area.

ANTH 4407	Anthropology of Global Health
ANTH 4409	Clinical Medical Anthropology
COUN 3300	Interpersonal Skills in Health Professions
HCA 4475	Health Law and Bioethics
HE 4425	Patient Education Skills

Students must have an overall 2.0 Grade Point Average (GPA) in BS Health Science Core courses with no grades below a C-.

Total Credits	21-24
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¹ Recommended courses that also fulfill ISU degree requirements for upper division credits.

Concentration Requirements

Code	Title	Credits
EMS 3300	Emergency Medical Services Operations and Management	3
EMS 3335	Emergency Medical Services Administration	3
EMS 4409	Emergency Medical Services Internship	3
9 credits of electives from one of the following tracks (Electives should be chosen in consultation with an advisor.)		9
Leadership Management Track ²		
EMS 3310	Development and Strategic Planning	
EMS 3320	Disaster Response Planning and Management	
HCA 2215	Healthcare Leadership	
HCA 3340	Healthcare Policy	
HCA 3384	Human Resource Management in Healthcare Organizations	
HCA 4453	Healthcare Finance	

HCA 4465	Healthcare Operations and Quality
HCA 4475	Health Law and Bioethics
HE 2221	Introduction to Community and Public Health
HE 4410	Health Behavior Change Theory and Application
HE 4420	Health Program Planning and Implementation
ECON 4440	Economics of Health Care
EMGT 3301	Incident Command System Advanced
EMGT 3305	Political and Policy Basis of Emergency Management
EMGT 3307	Social Dimensions of Disaster
EMGT 3308	Leading in Organizations
EMGT 4420	Legal Issues in Emergency Management
EMGT 4421	Public Health Preparedness
FSA 3331	Community Risk Reduction for Fire and Emergency Services
MGT 3312	Individual and Organizational Behavior
POLS 4405	Democracy and Governance
POLS 4454	Public Workplace Issues
Clinical Track ²	
BIOL 2221/BIOL 2221L, BIOL 2235/BIOL 2235L, BIOL 4432, and BIOL 4445 meet pre-requisite requirements for Master's in Physician Assistant Studies.	
HCA 4465	Healthcare Operations and Quality
HCA 4475	Health Law and Bioethics
HE 2221	Introduction to Community and Public Health
HE 3340	Fitness and Wellness Programs
HE 3342	Stress and Emotional Health
HE 3383	Epidemiology
HE 4410	Health Behavior Change Theory and Application
HE 4420	Health Program Planning and Implementation
HE 4425	Patient Education Skills
HE 4430	Curriculum and Methods in Health Education
HE 4432	Community and Public Health
HE 4435	Health Program Evaluation and Research
EMGT 3307	Social Dimensions of Disaster
EMGT 4420	Legal Issues in Emergency Management
FSA 3329	Political and Legal Foundations of Fire Protection
FSA 3331	Community Risk Reduction for Fire and Emergency Services
MGT 3312	Individual and Organizational Behavior
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory

BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab
BIOL 3305	Introduction to Pathobiology
BIOL 4432	Biochemistry
BIOL 4445	Biochemistry I
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I
PSYC 3301	Abnormal Psychology

Educational Track^{2,3}

EMS 3310	Development and Strategic Planning
EMS 3320	Disaster Response Planning and Management
HCA 4465	Healthcare Operations and Quality
HCA 4475	Health Law and Bioethics
HE 2221	Introduction to Community and Public Health
HE 3340	Fitness and Wellness Programs
HE 3342	Stress and Emotional Health
HE 4410	Health Behavior Change Theory and Application
HE 4420	Health Program Planning and Implementation
HE 4430	Curriculum and Methods in Health Education
HE 4432	Community and Public Health
HE 4435	Health Program Evaluation and Research
EMGT 3307	Social Dimensions of Disaster
EMGT 4421	Public Health Preparedness
MGT 3312	Individual and Organizational Behavior

Community Paramedic Track

Students must complete all courses within the Community Paramedic track to satisfy the track. In addition, successful completion of this track qualifies students to be awarded the Community Paramedic Academic Certificate.

CPAR 3400	Introduction to Community Paramedics
CPAR 3410	Introduction to Community Assessment
CPAR 4410	Community Assessment
CPAR 4420	Pathophysiology for the Community Paramedic
CPAR 4440	Community Paramedic Clinical Practicum

Students must complete all Emergency Medical Services Concentration courses with a grade of "C" or higher.

Total Credits

18

² EMS students who take HE courses are required to take HE 2221 first.
³ Community and Public Health Non-teaching Minor (21 credits) - available for those students with a Community and Public Health focus (see specific HE course listings in the Community and Public Health section of the Undergraduate Catalog). This minor would meet the elective credits required for the degree.

Upper Division Free Electives (Upper Division Core and Elective choices will count here.) ⁴	15
Free Electives (Associates in Paramedic Science credits will count here.) ⁴	66
Total Credits	120

⁴ A student's work at previous institutions and choices in the core and concentration requirements will affect the number of Upper Division Free Electives and Free Electives that are required. Please see an advisor to plan how to meet these requirements.

ISU Degree Requirements (p. 62)
 ISU General Education (p. 57)

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education (AS in Paramedic Science fulfills general education requirements)	0
	Core Requirements (w/Recommended Courses)	21
	Concentration Requirements	18

B.S. Health Science, Health Science Concentration

Program Admissions Requirements

There are no program admission requirements for the B.S. in Health Science.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
	Objective 1	6
	Objective 2	3
	Objective 3 - MATH 1153 or MGT 2216	3
	Objective 4	6
	Objective 5 - Biology and Chemistry requirements in core and concentration fulfill this objective.	7
	Objective 6 - PSYC 1101 and SOC 1101	6
	Students must fulfill Objective 7 or Objective 8	3
	Objective 7	
	Objective 8	
	Objective 9	3
	Total Credits	37

Core Requirements

Code	Title	Credits
	Choose one of the following:	4
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially fulfills Objective 5)	
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
	(BIOL 3301 has a prerequisite of BIOL 1101 or BIOL 2227, either of which will partially fulfill Objective 5.)	

DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
	Choose one of the following:	2-3
HE/HCA 2210	Medical Terminology and Communication	
HO 0106	Medical Terminology	
	Professional Competencies - Choose one of the following:	3
HCA 2215	Healthcare Leadership	
HCA 4475	Health Law and Bioethics	
HO 0107	Medical Law and Ethics	
PHIL 2230	Medical Ethics	
	Healthcare Competencies	3
HCA 1115	US Health System	
	Communication Competencies	3
CMP 3308	Groups and Communication	
	Diversity Competencies	2-3
ANTH 4407	Anthropology of Global Health	
ANTH 4409	Clinical Medical Anthropology	
COUN 3300	Interpersonal Skills in Health Professions	
HCA 4475	Health Law and Bioethics	
HE 4425	Patient Education Skills	
	Students must have an overall 2.0 Grade Point Average (GPA) in BS Health Science Core courses with no grades below a C-.	
Total Credits		23-25

Concentration Requirements

Code	Title	Credits
	Choose an additional 12 credits from the Health Science core or other approved courses.	12
HCA 1110	Introduction to the Allied Health Professions	3

BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab ¹	4
Choose one of the following biology courses with lab:		4
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	
Choose one of the following chemistry sequences:		7-9
CHEM 1101 & CHEM 1102 & CHEM 1103	Introduction to Chemistry and Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory	
CHEM 1111 & 1111L & CHEM 1112 & CHEM 1112L	General Chemistry I and General Chemistry I Lab and General Chemistry II and General Chemistry II Lab	
Either option partially fulfills Objective 5		
Choose one of the following physics sequences:		4
PHYS 1100	Essentials of Physics (Partially fulfills Objective 5)	
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory (Partially fulfills Objective 5)	

PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory (Partially fulfills Objective 5)	
MATH 1153 or MGT 2216	Statistical Reasoning (Either course fulfills Objective 3) Business Statistics	3
NTD 2239 or NTD 3340	Nutrition (Partially fulfills Objective 5) Nutrition for Health Professionals	3
PSYC 1101	Introduction to Psychology (Partially fulfills Objective 6)	3
SOC 1101	Introduction to Sociology (Partially fulfills Objective 6)	3

Students must have an overall 2.0 Grade Point Average (GPA) in Health Science Concentration courses with no grades below a C-.	
Total Credits	46-48

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Core Requirements (w/o General Education)	23-25
	Concentration Requirements (w/o General Education)	16-18
	Upper Division Free Electives	24
	Free Electives	20-16
	Total Credits	120

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

Interprofessional Geriatric Certificate

To receive this certificate, the student would also be required to complete a bachelors or graduate degree from ISU concurrently.

Code	Title	Credits
DHS 4402	Survey of Aging Issues	3
DHS 4403	Interprofessional Systems in Geriatric Management	3
DHS 4404	Geriatric Interprofessional Collaborative Practice Internship	2
Total Credits		8

Community and Public Health

Program Description	Type	Degree
Community and Public Health, B.A. or B.S., Community Health Concentration (p. 279)	Degree	B.A. or B.S.
Community and Public Health, B.A. or B.S., Addiction Studies Concentration (p. 278)	Degree	B.A. or B.S.
Community and Public Health, B.A. or B.S., School Health Concentration (p. 280)	Degree	B.A. or B.S.
Community and Public Health, Teaching Minor (p. 281)	Minor	
Community and Public Health, Non-Teaching Minor (p. 281)	Minor	

Overview

There is little doubt in today's world that health promotion/disease prevention - strategies are on nearly every national health care agenda. As a society, we have learned that a fuller measure of health, a better quality of life, is within the grasp of almost all people. The lifestyle choices a person makes today may influence that individual's health for the rest of his or her life.

The undergraduate program in Community and Public Health is designed to prepare students to plan, implement, and evaluate health promotion programs, interventions and strategies, serve as an advocate to support healthy behaviors and healthy environments, and lead in empowering individuals, groups and communities to achieve optimal health, well-being and quality of life. More specifically, they learn to facilitate the adoption of actions which are conducive to the health of individuals, groups, or communities.

Graduates with a baccalaureate degree in Community and Public Health are eligible to take the Certified Health Education Specialist (CHES) national certification offered through the National Commission on Health Education Credentialing (NCHEC). The undergraduate school health emphasis is accredited by the Council for the Accreditation of Educator Preparation (CAEP).

Students in the Community and Public Health Program may choose from three concentrations:

1. community health,
2. addictions studies, or
3. school health.

Teaching and non-teaching minors are available. Graduate degrees are offered through a Master of Health Education (MHE) and a Master of Public Health (MPH).

Community and Public Health Program Goals and Objectives

Coursework in the Idaho State University undergraduate Community and Public Health program prepares students to work with individuals, groups, and organizations and are based on the following Seven Areas of Responsibilities for Health Education Specialists that have been identified by NCHEC:

- Assess Needs, Resources, and Capacity for Health Education/Promotion
- Plan Health Education/Promotion
- Implement Health Education/Promotion
- Conduct Evaluation and Research Related to Health Education/Promotion
- Administer and Manage Health Education/Promotion
- Serve as a Health Education/Promotion Resource Person
- Communicate, Promote, and Advocate for Health, Health Education/Promotion, and the Profession

Community and Public Health Faculty (p. 277)

Community and Public Health Courses (p. 580)

Community and Public Health Faculty

Department Chair and Associate Professor

Fore, M. Elizabeth, Department Chair and Associate Professor, Community and Public Health. B.A. 1992, M.Ed 1994, Clemson University; Graduate Certificate, 2004, Ph.D. 2006, University of South Carolina. (2011)

Instructor

Caudle, Melissa A., Instructor, Community and Public Health. B.S. 2001, M.S. 2014, Idaho State University. (2015)

Associate Professor

Olsen, Janette, Associate Professor, Community and Public Health. B.S. 1995, M.S. 1999, Brigham Young University; Ph.D. 2010, University of Utah. (2007)

Clinical Assistant Professor

Salazar, Lisa L., Clinical Assistant Professor, Community and Public Health. B.A. 2006, MPH 2009, M.Ed. 2011, Idaho State University. (2007)

Emeriti

Kearns, Richard L.,* Director of Undergraduate Programs and Professor, Health and Nutrition Sciences. 1988-2004

Kritsky, Delane C., Associate Dean, College of Health Professions; Professor, Health and Nutrition Sciences and Biological Sciences. 1974-2008

McAleese, Willis J.,* Professor, Health Education and Promotion. 1989-2014

Morris, Lloyd E. "Mike," Professor, Health and Nutrition Sciences. 1976-2001

Rankin, Linda L.,* Associate Dean, Division of Health Sciences; Professor, Health Education and Promotion. 1991-2015

B.A. or B.S. Community and Public Health with Addiction Studies Concentration

Major in Community and Public Health

Students choosing to major in Community and Public Health must complete all university General Education Requirements (p. 57) for the B.A. or B.S. degree, all core Community and Public Health requirements, and all courses from one of the concentrations listed below. Students selecting the school health concentration should complete the School Health Core, the required coursework and must also complete all College of Education (p. 211) course requirements.

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science Degree in Community and Public Health

1. Completion of the university General Education Requirements, a minimum of 36 credits (see General Education Requirements (p. 57) and Applying to Graduate (p. 82) in the Academic Information section of this catalog). Courses which partially or wholly fulfill both General Education Objectives and major requirements are:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ENGL 1101	Writing and Rhetoric I (Partially satisfies General Education Objective 1)	3
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
or		
MGT 2216	Business Statistics (Satisfies General Education Objective 3)	
NTD 2239	Nutrition (Partially satisfies General Education Objective 5)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
or		
SOC 1102	Social Problems (Partially satisfies General Education Objective 6)	

2. Completion of the following required course:

Code	Title	Credits
ENGL 3307	Professional and Technical Writing	3

3. Completion of the Community Health Core Requirements (27 credits).

4. Completion of the courses from one of the three concentrations listed below. Students selecting the school health concentration should complete the Community Health Core, the required coursework, and must also complete all College of Education (p. 211) course requirements.

5. Completion of elective courses. Elective courses should be selected according to the student's interests and career needs, in conjunction with a faculty advisor.

The total number of elective credit hours may include any non-required HE course and any other approved elective.

6. Completion of the university requirements for graduation, a minimum of 120 credits (See Degree Requirements (p. 62) and Applying to Graduate (p. 82) in the Academic Information section of this catalog).

In Addition:

Credits earned in a Community and Public Health course with a grade of lower than a "C" will not be counted toward graduation for a Community and Public Health major. The student must present a current first aid and CPR card to her/his advisor.

Community Health Major Core Requirements (27 credits)

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 3383	Epidemiology	3
HE 4405	Leadership and Policy	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4420	Health Program Planning and Implementation	3
HE 4432	Community and Public Health	3
HE 4435	Health Program Evaluation and Research	3
HE 4442	Environmental Health in Community and Public Health	3
Total Credits		27

Addiction Studies Concentration ¹

In addition to the Community Health Major Core, the following courses are required:

Code	Title	Credits
HE 2230	Introduction to Addictions	3
HE 2232	Helping Theories	3
HE 2233	Harmful and Illicit Substances	3
HE 2234	Blood Borne Illness	1
HE 2235	Chemical Dependency and the Family	3
HE 3310	Screening and Assessment of Substance Abuse	3
HE 3311	Case Management of Substance Abuse	3
HE 3312	Ethics for the Addictions Counselor	3
HE 3314	Group Skills for Addiction Counselors	3
HE 4490	Practicum in Community and Public Health	4
HE Electives		3
Total Credits		32

¹ **Addiction/Dependency Counselor Certification:** Any Community and Public Health majors who wish to meet the standards of the ISAS

and CADC certification through the Idaho Board of Alcohol and Drug Certification must complete the listed courses in the Addiction Studies Concentration. Additionally, the IBADCC Board requires a bachelor's degree for the CADC certification. Two courses are taught each semester and will be listed in the Class Schedule; contact the Department of Community and Public Health to learn which courses will be scheduled in the future.

B.A. or B.S. Community and Public Health with Community Health Concentration

Major in Community and Public Health

Students choosing to major in Community and Public Health must complete all university General Education Requirements (p. 57) for the B.A. or B.S. degree, all core Community and Public Health requirements, and all courses from one of the concentrations listed below. Students selecting the school health concentration should complete the School Health Core, the required coursework and must also complete all College of Education (p. 211) course requirements.

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science Degree in Community and Public Health

1. Completion of the university General Education Requirements, a minimum of 36 credits (see General Education Requirements (p. 57) and Applying to Graduate (p. 82) in the Academic Information section of this catalog). Courses which partially or wholly fulfill both General Education Objectives and major requirements are:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ENGL 1101	Writing and Rhetoric I (Partially satisfies General Education Objective 1)	3
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
or		
MGT 2216	Business Statistics (Satisfies General Education Objective 3)	3
NTD 2239	Nutrition (Partially satisfies General Education Objective 5)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
or		
SOC 1102	Social Problems (Partially satisfies General Education Objective 6)	3

2. Completion of the following required course:

Code	Title	Credits
ENGL 3307	Professional and Technical Writing	3

3. Completion of the Community Health Core Requirements (27 credits).

4. Completion of the courses from one of the three concentrations listed below. Students selecting the school health concentration should complete the Community Health Core, the required coursework, and must also complete all College of Education (p. 211) course requirements.

5. Completion of elective courses. Elective courses should be selected according to the student's interests and career needs, in conjunction with a faculty advisor. The total number of elective credit hours may include any non-required HE course and any other approved elective.

6. Completion of the university requirements for graduation, a minimum of 120 credits (See Degree Requirements (p. 62) and Applying to Graduate (p. 82) in the Academic Information section of this catalog).

In Addition:

Credits earned in a Community and Public Health course with a grade of lower than a "C" will not be counted toward graduation for a Community and Public Health major. The student must present a current first aid and CPR card to her/his advisor.

Community Health Major Core Requirements (27 credits)

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 3383	Epidemiology	3
HE 4405	Leadership and Policy	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4420	Health Program Planning and Implementation	3
HE 4432	Community and Public Health	3
HE 4435	Health Program Evaluation and Research	3
HE 4442	Environmental Health in Community and Public Health	3
Total Credits		27

Community Health Concentration

In addition to the Community Health Major Core, the following courses are required:

Code	Title	Credits
HCA 1115	US Health System	3
HE/HCA 2210	Medical Terminology and Communication	2
HE 3340	Fitness and Wellness Programs	3
HE 3342	Stress and Emotional Health	3
HE 4443	Substance Abuse in Community and Public Health	3
HE 4444	Human Diseases in Community and Public Health	3

HE 4445	Human Sexuality in Community and Public Health	3
HE 4446	Communication Strategies in Community and Public Health	3
HE 4490	Practicum in Community and Public Health	4
HE Electives or Other Approved Electives		6
Total Credits		33

B.A. or B.S. Community and Public Health with School Health Concentration

Major in Community and Public Health

Students choosing to major in Community and Public Health must complete all university General Education Requirements (p. 57) for the B.A. or B.S. degree, all core Community and Public Health requirements, and all courses from one of the concentrations listed below. Students selecting the school health concentration should complete the School Health Core, the required coursework and must also complete all College of Education (p. 211) course requirements.

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science Degree in Community and Public Health

1. Completion of the university General Education Requirements, a minimum of 36 credits (see General Education Requirements (p. 57) and Applying to Graduate (p. 82) in the Academic Information section of this catalog).
Courses which partially or wholly fulfill both General Education Objectives and major requirements are:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ENGL 1101	Writing and Rhetoric I (Partially satisfies General Education Objective 1)	3
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
or		
MGT 2216	Business Statistics (Satisfies General Education Objective 3)	3
NTD 2239	Nutrition (Partially satisfies General Education Objective 5)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
or		
SOC 1102	Social Problems (Partially satisfies General Education Objective 6)	3

2. Completion of the following required course:

Code	Title	Credits
ENGL 3307	Professional and Technical Writing	3

3. Completion of the Community Health Core Requirements (27 credits).
4. Completion of the courses from one of the three concentrations listed below. Students selecting the school health concentration should complete the Community Health Core, the required coursework, and must also complete all College of Education (p. 211) course requirements.
5. Completion of elective courses. Elective courses should be selected according to the student's interests and career needs, in conjunction with a faculty advisor. The total number of elective credit hours may include any non-required HE course and any other approved elective.
6. Completion of the university requirements for graduation, a minimum of 120 credits (See Degree Requirements (p. 62) and Applying to Graduate (p. 82) in the Academic Information section of this catalog).

In Addition:

Credits earned in a Community and Public Health course with a grade of lower than a "C" will not be counted toward graduation for a Community and Public Health major. The student must present a current first aid and CPR card to her/his advisor.

Community Health Major Core Requirements (27 credits)

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 3383	Epidemiology	3
HE 4405	Leadership and Policy	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4420	Health Program Planning and Implementation	3
HE 4432	Community and Public Health	3
HE 4435	Health Program Evaluation and Research	3
HE 4442	Environmental Health in Community and Public Health	3
Total Credits		27

School Health Concentration ¹

In addition to the Community Health Major Core listed above, the following course is required:

Code	Title	Credits
HE 4430	Curriculum and Methods in Health Education	3
Total Credits		3

¹ Students in the School Health Concentration must also complete the Professional Education Core (44 credits) from the College of Education (see Secondary Teacher Education (p. 229) requirements).

Non-Teaching Minor in Community and Public Health

Required Courses:

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 4405	Leadership and Policy	3
HE 4410	Health Behavior Change Theory and Application	3

HE 4420	Health Program Planning and Implementation	3
HE 4432	Community and Public Health	3
HE 4435	Health Program Evaluation and Research	3
Total Credits		21

Teaching Minor in Community and Public Health

Prerequisites:

- Admission to Teacher Education Program

HE 4445	Human Sexuality in Community and Public Health	
Total Credits		21

Required Courses:

Code	Title	Credits
HE 2200	Promoting Wellness	3
HE 2221	Introduction to Community and Public Health	3
HE 4430	Curriculum and Methods in Health Education	3
HE 4432	Community and Public Health	3
Plus three of the following eight courses (minimum 9 credits)		9
NTD 2239	Nutrition	
HE 3340	Fitness and Wellness Programs	
HE 3342	Stress and Emotional Health	
HE 4410	Health Behavior Change Theory and Application	
HE 4442	Environmental Health in Community and Public Health	
HE 4443	Substance Abuse in Community and Public Health	
HE 4444	Human Diseases in Community and Public Health	

Counseling

Department Mission Statement

The principle mission of the Department of Counseling is to prepare quality counselors for various settings in Idaho and the nation. More specifically, we seek to prepare quality School Counselors for public schools in K-12 settings; Marriage, Couple, and Family Counselors and Clinical Mental Health Counselors for community agencies and other mental health settings; and Student Affairs Counselors for working in college settings such as advising and residence halls, and career centers.

In addition, we prepare doctoral level counselor educators and supervisors to work primarily in institutions of higher learning as faculty members.

We believe that it is also our mission to:

- instill a strong sense of professional identity in students,
- help students gain an appreciation of the rich knowledge base in counselor education,
- develop student expertise in the skills of counseling,
- aid students to become certified and/or licensed,
- aid students/graduates in their initial job placement,
- teach and perform research applicable to the practice of counseling, and counselor education and supervision,
- aid students in understanding the diversity of views and cultures within our profession and the environment in which counselors practice.

The Department of Counseling also has a mission within the Kasiska Division of Health Sciences, College of Health Professions, which is to represent the mental health perspective within the Division and to consult with Division faculty and departments in encouraging a holistic perspective toward health care services.

Goals and Objectives

The general objective of the Master of Counseling (M.COUN.) degree is to prepare students to be professional counselors. The Department of Counseling faculty believe that the development of a strong professional identity, a rich knowledge base, and expertise in the skills of counseling are essential to functioning as a professional in each counseling setting.

The Master of Counseling degree is designed to be the strong foundation upon which graduates enter a lifetime career in the helping professions. This program prepares counselors to respond to the multitude of societal changes and to the ever-expanding counseling profession. In addition to knowledge and experience in the following eight common-core areas, graduates have specialized knowledge and skills as identified in the objectives of the Marriage, Couple, and Family Counseling, Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling majors.

The Department of Counseling has curricular and professional objectives for each Master of Counseling student. Each of these objectives has specific outcome measures:

Curricular Objectives:

1. Students will have knowledge of Human Growth and Development in order to understand the nature and needs of persons at all developmental levels and in multicultural contexts.
2. Students will have knowledge of Social and Cultural Foundations to be effective in a multicultural and diverse society.

3. Students will be knowledgeable and skillful in Counseling and Consultation processes.
4. Students will be knowledgeable about group development, dynamics, counseling theory, group counseling methods, and group work approaches.
5. Students will be knowledgeable and understand career development and related factors.
6. Students will understand and be knowledgeable about individual and group approaches to assessment and evaluation.
7. Students will be knowledgeable about various research methods, statistical analysis, needs assessment, and program evaluation.
8. Students will be knowledgeable about the profession of counseling including history, organizational structures, ethics, standards, and credentialing.

Student Professional Objectives:

In addition to the above curricular objectives, the Department of Counseling has program specific objectives. These include:

1. School counseling students will obtain certification as school counselors.
2. Students in all majors (Marriage, Couple, and Family Counseling; Clinical Mental Health Counseling; School Counseling; and Student Affairs Counseling) will obtain state licensure as professional counselors (i.e., LPC).

Counseling

Graduate-level preparation for (1) counselors who seek employment in schools, universities, community mental health, and various other settings, and (2) college student affairs professionals.

Pre-Counseling and Pre-Student Affairs

Preparation should consist of a broad undergraduate course of study including some work in psychology (learning and personality theory), sociology, and the communication skills. For those seeking positions in public elementary and - secondary schools, state certification requirements should be considered.

Undergraduates interested in continuing their education in the Master of Counseling program should consider enrolling in the Seminar course, COUN 4490 entitled Introduction to Counseling Services. This 1-credit course is offered each Fall semester.

Degree Programs

Degree programs offered by the department, all at the graduate level, include Doctor of Philosophy, Educational Specialist, and Master of Counseling. - Majors are available in Counselor Education and Counseling (Ph.D.); Counseling (Ed.S.); Marriage, Couple, and Family Counseling (M.COUN.); Clinical Mental Health Counseling (M.COUN.); School Counseling (M.COUN.); and Student Affairs Counseling (M.COUN.).

Admission

Admission to the Department of Counseling master's program is based on a variety of criteria outlined in the Graduate Catalog (<http://coursecat.isu.edu/graduate>). Because of limited class sizes and the large number of applicants, admission into the Department of Counseling is highly competitive.

For more information about the graduate programs offered through ISU's Department of Counseling, please refer to the College of Health Professions

within the Graduate Catalog (<http://coursecat.isu.edu/graduate>), or visit the department's website at: <https://www.isu.edu/counseling/>.

Accreditation

The program for school counselor preparation is credentialed by the State of Idaho.

The Counselor Education programs approved by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) are as follows:

Counseling Faculty

Chair and Professor

Kleist, David M.,* Professor and Director of Assessment for Accreditation, Counseling. B.A., 1987, University of Wisconsin; M.A. 1991, Governors State University; Ph.D. 1995, Southern Illinois University. (1995)

Professor

Horn-Doughty, Elizabeth,* Professor, Counseling. B.A. 1996, East Texas State University; M.A. 1998, Sam Houston State University; Ph.D. 2006, Texas A&M University-Commerce. (2006)

Associate Professors

Astramovich, Randall L., Associate Professor, Counseling. B.A., 1990, M.Ed., 1994, Ph.D., 2000, University of North Texas. (2015)

Moody, Steven J., Associate Professor, Counseling. B.S., 1996, University of Wyoming; M.Coun., 2007, Idaho State University; Ph.D., 2012, Idaho State University. (2014)

Yates, Chad M., Associate Professor, Counseling. B.S., 2005, University of Toledo; M.S., 2008, University of Toledo; Ph.D., 2012, Kent State University. (2013)

Assistant Professors

Chan, Christian D., Assistant Professor, Counseling. B.A., 2010, University of Notre Dame; M.A., 2013, The George Washington University; Ph.D. 2017, The George Washington University. (2017)

Stewart, Leslie A., Assistant Professor, Counseling. B.A., 2007, Georgia State University; M.Ed., 2009, University of Georgia, Ph.D., 2014, Georgia State University. (2014)

Clinical Assistant Professor

Lister, Kristen E., Clinical Assistant Professor and Professional Development Workshop Coordinator. B.A., 1993, Indiana University-Bloomington; M.Coun., 2011, Idaho State University; Ph.D., 2016, Idaho State University. (2017)

Meridian Counseling Clinic Manager

Lamprecht, Logan, Meridian Counseling Clinic Manager. B.A. 2003, Idaho State University; M.A. 2007, Idaho State University; Ph.D. 2011, Kent State University. (2018)

Affiliate Instructor

Erickson, Lance, Associate Professor, Counseling; Director Career Center. A.A., 1991, Ricks College; B.A. 1994, Brigham Young University; M.Coun. 2004, Idaho State University; Ed.D. 2012, Idaho State University. (2004)

Marriage, Couple, and Family Counseling (M.COUN.), Clinical Mental Health Counseling (M.COUN.), School Counseling (M.COUN.), Student Affairs Counseling (M.COUN.), and Counselor Education and Counseling (Ph.D.).

Counseling Faculty (p. 283)

Counseling Courses (p. 537)

Adjunct Faculty

Niece, Matt, B.A., 2006, Boise State University; M.Coun., 2010, Idaho State University; Ph.D., 2014, Idaho State University.

Schmidt, Jim, B.A., 1973, Boise State University; M.Ed., 1976, Idaho State University; Ed.D., 1986, Idaho State University.

Tivis, Rick, At-Large Graduate Faculty, Counseling. B.A., 1980, University of Central Oklahoma; M.P.H., 1994, University of Oklahoma Health Science.

Emeriti

Allen, Virginia B.,* Professor, Counseling. 1981-2012

Crews, Judith A.,* Associate Professor, Counseling. 2000-2019

Edgar, Thomas E., Professor, Counselor Education. 1966-1987

Feit, Stephen S.,* Professor, Counseling. 1973-2013

Lloyd, Arthur P., Professor, Counseling. 1967-2001

Dental Hygiene

Program Description	Type	Degree
Dental Hygiene, B.S. (p. 286)	Degree	B.S.

Overview

As licensed oral health care professionals and educators, dental hygienists, as members of the dental team, often work in collaboration with other health care providers. Dental hygienists integrate knowledge of biomedical, dental, clinical and social sciences to assist individuals and groups in achieving and maintaining optimum oral health. The dental hygienist provides preventive services, preliminary examinations, radiographs, sealants, nonsurgical periodontal therapy, fluoride treatments, and patient education. Depending upon individual state laws, the role of the hygienist has expanded to include procedures that are beyond this traditional scope of responsibility, such as the administration of local anesthesia and nitrous oxide analgesia and restorative therapy. As a specialist, the dental hygienist is an integral co-therapist in helping consumers prevent oral disease, arrest existing oral disease, and maintain oral health.

Philosophy, Mission, and Goals

The fundamental philosophy of the Idaho State University Department of Dental Hygiene is threefold. First, its members are committed to excellence in all academic endeavors. Second, the program is progressive in instituting ongoing change to prepare for the future of dental hygiene. The program also places priority on basing these changes on evaluation findings while maintaining essential traditional values. Third, as a component of the university's primary emphasis area, the program serves statewide, regional, and global needs by providing access to quality education in the discipline as well as meeting the employment demands and oral health needs of the public.

The primary mission of the Idaho State University Department of Dental Hygiene is to provide global leadership and scholarship in educating dental hygienists who will improve the quality of health for diverse populations by advancing the delivery systems and science of dental hygiene through interprofessional collaboration while adhering to professional standards.

Pursuant to the broad philosophy and mission statement, the Department of Dental Hygiene seeks to positively impact the education of its students and the delivery of dental hygiene services to the public by fulfilling the following interrelated program goals:

- *Goal 1.* Provide quality progressive baccalaureate and graduate dental hygiene education preparing individuals for the future needs of a global society.
- *Goal 2.* Increase the visibility of the department and profession through leadership and scholarship.
- *Goal 3.* Expand oral health care for diverse populations through interprofessional and community outreach experiences using advanced delivery systems.
- *Goal 4.* Enhance resources to support the department mission, vision, and goals.

Dental Hygiene Faculty

Chair and Associate Professor

Freudenthal, Jacqueline G.,* Associate Professor and Department Chair, Dental Hygiene. B.S. 1982; M.H.E. 2005, Idaho State University. (1992)

Baccalaureate Program Description

The Department of Dental Hygiene awards a Bachelor of Science degree. Students apply to the professional curriculum after completing prerequisite courses in science and general education. The professional program is two years in length. Prerequisites can be completed at the institution of the student's choice. The Department of Dental Hygiene has transfer information posted on its website at: <https://www.isu.edu/dentalhygiene/>.

The program is designed to foster student growth, promote development of critical and ethical judgment, and encourage life-long learning. The curriculum includes didactic, laboratory, and clinical instruction sufficient to graduate competent clinicians who are capable of practicing contemporary dental hygiene procedures. Students are educated to clinical competency in both traditional and advanced procedures, with emphasis placed on preventive, therapeutic, and nonsurgical services essential for providing total patient care to the public. As a result, graduates possess an increased understanding of dentistry and dental hygiene, expanded capabilities as members of the oral health team, and greater career mobility. Graduates of the Idaho State University dental hygiene program also are prepared to pursue graduate studies in dental hygiene or related areas. The dental hygiene program is fully accredited by the American Dental Association Commission on Dental Accreditation.

Employment Opportunities

Upon completion of the dental hygiene curriculum, graduates are qualified to take the Dental Hygiene National Board Examination and regional and state licensure exams. Graduates are eligible for positions in private dental offices, public health programs, school health programs, dental hygiene education, and research. In addition, the dental hygiene program provides instruction and experience in advanced procedures to broaden capabilities for clinical practice.

Master of Science in Dental Hygiene

The graduate program is designed for licensed dental hygienists with baccalaureate degrees. Graduates are prepared for more complex roles in the discipline such as dental hygiene educators, researchers, and advanced rural and community oral health practitioners. The program provides an online graduate curriculum with minimal on-campus visitations required. For more information, please see the Dental Hygiene (<http://coursecat.isu.edu/graduate/healthscience/dentalhygiene>) page in the Graduate Catalog.

Accelerated B.S.to M.S.D.H.Degree

B.S.degree-seeking students enrolled in the dental hygiene program at Idaho State University are eligible to apply to the B.S.-M.S.Accelerated Track option during their senior year and complete 6 credits of graduate coursework. Contact the department for more details.

DENT Faculty (p. 284)

DENT Courses (p. 540)

Professors

Gurenlian, JoAnn R., Professor and Graduate Program Director, Dental Hygiene. B.S. 1978, Fairleigh Dickinson University; M.S. 1979, Columbia University; Ph.D. 1991, University of Pennsylvania. (2011)

Rogo, Ellen,* Professor, Dental Hygiene. B.S. 1978, University of Missouri; M.Ed. 1981, University of Washington; Ph.D. 2009, University of Idaho. (1992)

Associate Professors

Calley, Kristin H.,** Associate Professor, Dental Hygiene. B.S. 1988, Idaho State University; M.S. 1993, Old Dominion University. (1992)

Garland, Kandis V., Associate Professor, Dental Hygiene. B.S. 1998, University of Minnesota. (2006)

Johnson, Tara L.,** Associate Professor, Dental Hygiene. B.S. 1981, M.Ed. 1992, Ph.D. 2007, Idaho State University. (1989)

Assistant Professors

Bono, Leciel K, Assistant Professor, Dental Hygiene. B.S. 1998, M.S. 2015, Idaho State University. (2016)

Williams, Rachelle, Assistant Professor, Dental Hygiene. B.S. 2001, M.S. 2016, Idaho State University. (2017)

Clinical Associate Professors

Ellis, Kimberlee A., Clinical Associate Professor, Dental Hygiene. B.S. 1990, Idaho State University. (2000)

Clinical Assistant Professors

Biorn, Camille, Clinical Assistant Professor, Dental Hygiene. B.S. 1997, Idaho State University. (2001)

Stephenson, Colleen, Clinical Assistant Professor, Dental Hygiene. B.S. 2007, M.S. 2016, Idaho State University. (2016)

Adjunct Faculty

Alsop, Leisa

Bennett, Susan

Bringhurst, Dr. Louis

Bybee, Dr. Darryl

Cady, Dr. Michael

Christensen, Teresa

Dahlke, Jennifer

Johnson, Mariah

Lane, Crystal

Larsen, Dr. Bryce

Ormond, Dr. Errol

Peterson, Dr. Jason

Ruth, Eileen

Salisbury, Catherine

Spain, LuAnn

Siemen, Dr. Kyle

Walters, Colette

Affiliate Faculty

Guidinger, April

Luedtke-Alex, Karla

Part-Time Lecturers

Hoover, Dr. Rebecca-College of Pharmacy Practice & Administrative Sciences

Pilarski, Jason-Department of Biological Sciences

Emeritae

Bowen, Denise M.,** Professor, Dental Hygiene. 1976-2010

Christie, Carole R., Professor, Dental Hygiene. 1979-2011

Herzog, Anita, Professor, Dental Hygiene. 1978-2008

Hodges, Kathleen O.,** Professor, Dental Hygiene. 1979-2013

Kawamura, Carole J., Assistant Professor, Dental Hygiene. 1975-2002

Paarmann, Carlene S.,** Professor, Dental Hygiene. 1976-2011

B.S. Dental Hygiene

Program Admissions Requirements

Formal application for admission to the dental hygiene program must be submitted before January 15 of the year the student wishes to enter. Applicants must complete prerequisite courses and complete specific requirements for consideration. Applicants must have a minimum Cumulative Core and Natural Science Grade Point Average (GPA) of 2.8. Dental hygiene program information regarding current admission criteria and procedures can be obtained from the Dental Hygiene website at <https://isu.edu/dentalhygiene/>, or directly from the department. Application materials are submitted through the American Dental Education Association Centralized Dental Hygiene Application Service (<http://www.adea.org/dhcas.aspx>).

Admission to Idaho State University is a separate procedure and **must** be completed prior to application to the dental hygiene program. Students must provide verification of current CPR certification and vaccinations prior to beginning the program within the specified application year.

Academic Standards

To enroll in upper division courses with a dental hygiene prefix (DENT), students must be accepted for admission to the dental hygiene program. Each student is responsible for completing the required course work in proper sequential order. To be eligible for graduation and progression in the dental hygiene program, the student must have a cumulative grade point average of 2.25. Course work for which the student receives a grade below "C-" (C minus) will not be accepted as fulfilling requirements for the Department of Dental Hygiene. The department chairperson must approve any deviation from these standards.

Academic Advising

Transcripts will be evaluated by the ISU Registrar to determine courses fulfilling the general education requirements for B.S. degree requirements. Transfer students who have met the Idaho State Board of Education core subject requirements have fulfilled General Education requirements; however, MATH 1153 is a prerequisite to DENT 4401 Research Methods. Students who earned a baccalaureate degree have fulfilled the General Education requirements.

Transcripts will be evaluated by Dental Hygiene Transfer Coordinator to determine courses meeting the dental hygiene entry-level requirements. An individualized program of study will be developed in collaboration with the transfer coordinator and approved before beginning coursework.

For more information on transfer credit limits, please review the university degree requirement page at <http://coursecat.isu.edu/undergraduate/degree/requirements/>

General Education Requirements

Transfer students with an *Associate of Science or Associate of Arts and Sciences* degree as the entry-level dental hygiene degree from a U.S. academic regionally accredited institution have completed ALL of the General Education requirements; however, MATH 1153 is a prerequisite to DENT 4401 Research Methods.

Transfer students with an *Associate of Applied Science* degree as the entry-level dental hygiene degree from a U.S. academic regionally accredited institution **AND** who have met the Idaho State Board core subject requirements have fulfilled the B.S. degree General Education requirements; however, MATH 1153 is a prerequisite to DENT 4401 Research Methods.

Transfer students with an *Associate of Applied Science* degree as the entry-level dental hygiene degree from a U.S. academic regionally accredited institution must complete any General Education Objectives not already completed. See the General Education Requirements (p. 57) in the Academic Information section of this catalog.

Credits awarded for an *Associate of Applied Science* degree as the entry-level dental hygiene degree granted by a U.S. academic institution not accredited by a regional accrediting agency cannot be applied to a B.S. degree at Idaho State University.

Prerequisite Core Courses

(Pre-Dental Hygiene)

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
CHEM 1101	Introduction to Chemistry (Partially satisfies General Education Objective 5)	3
CHEM 1102 & CHEM 1103	Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory	4
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
DENT 2201	Principles of Dental Hygiene	2
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I (Partially satisfies General Education Objective 1) Writing and Rhetoric I Plus	3-4
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
NTD 2239 or NTD 3340	Nutrition (Partially satisfies General Education Objective 5) Nutrition for Health Professionals	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
SOC 1101	Introduction to Sociology (Partially satisfies General Education Objective 6)	3

IN ADDITION:

- Any university General Education Objectives (p. 57) not yet completed, plus any additional Objective courses required to bring the General Education credit total to a minimum of 36.
- Elective course INFO 1101 is highly recommended as an elective for those individuals without computer skills and it may be chosen to satisfy General Education Objective 8.
- Elective course DENT 2220 is highly recommended for pre-dental hygiene students without dental office experience.

Dental Hygiene Required Courses

Code	Title	Credits
DENT 3307	Prevention and Management of Dental Emergencies	3
DENT 3308	Oral Histology and Embryology	2
DENT 3309	General and Oral Pathology	3
DENT 3311	Tooth Morphology	2
DENT 3312	Head and Neck Anatomy	3
DENT 3313	Clinical Dental Hygiene I	3
DENT 3313C	Clinical Dental Hygiene I Clinic	3
DENT 3314	Clinical Dental Hygiene II	2
DENT 3314C	Clinical Dental Hygiene II Clinic	3
DENT 3315	Preventive Dentistry	2
DENT 3316	Dental Materials	2
DENT 3318	Oral Radiology	2
DENT 3318L	Oral Radiology Laboratory	1
DENT 3319	Preclinical Restorative Procedures	2
DENT 3320	Pain Management	2
DENT 3321	Periodontology	2
DENT 4401	Research Methods	2
DENT 4402	Advanced Periodontology	2
DENT 4403	Advanced Clinical Theory I	2
DENT 4403C	Advanced Clinical Practice I Clinic	4
DENT 4404	Advanced Clinical Theory II	2
DENT 4404C	Advanced Clinical Practice II Clinic	4
DENT 4405	Dental Hygiene Seminar	1
DENT 4408	Ethical and Legal Principles	2
DENT 4411	Application of Restorative Therapies	2
DENT 4411C	Restorative Care I	1
DENT 4412C	Restorative Care II	1
DENT 4413	Community Health and Special Needs Populations	3
DENT 4414	Community Outreach Experiences	2
DENT 4421	Leadership and Health Policy	2
DENT 4422	Educational Strategies and Applied Methods	2
DENT 4424	Principles of Interprofessional Practice Management	3

Additional Required Course

Code	Title	Credits
PPRA 3314	Basic and Applied Pharmacology for Dental Hygiene	2

Dental Hygiene Electives

Code	Title	Credits
DENT 3330C	Interim Clinic	2
DENT 3340C	Enhanced Strategies in Clinical Care	1
DENT 4481	Independent Studies in Dental Hygiene	1-3

Graduation Requirements

Code	Title	Credits
Prerequisite courses (department requirements and general education)		46
Required dental hygiene courses		74
Other courses (including general education)(minimum of 12 cr)		12
Total Credits		132

Dental Sciences

Program Description	Type	Degree
Idaho Dental Education Program (p. 289)	Other	

The Department of Dental Sciences administers the Idaho Dental Education Program (IDEP) for pre-doctoral dental students and the Idaho Advanced General Dentistry Residency (IAGD) as a postdoctoral program.

The Department of Dental Science cooperates with the Creighton University Boyne School of Dentistry and basic science departments at Idaho State University in offering the first year of dental education through the Dental Sciences Department. Students then spend their second, third, and fourth years at Creighton University in Omaha, Nebraska.

The Idaho Dental Education Program is designed to provide residents of Idaho with access to high quality dental education as if Idaho had its own dental school. The IDEP program is fully accredited as a Satellite Program of Creighton University School of Dentistry by the American Dental Association. The program involves a first year curriculum at Idaho State University in Pocatello, followed by completion of the second through fourth years at Creighton University in Omaha, Nebraska. Students completing the four year program receive the Doctor of Dental Surgery (D.D.S.) degree and are eligible to take the licensure examinations necessary to become practicing dentists. Students may also elect to pursue advanced training through residencies or specialty programs, eventually becoming board certified in one of the recognized dental specialties.

There are eight positions available for Idaho residents. Applicants to the program must have completed the necessary prerequisites in English, Biology, Inorganic Chemistry, Organic Chemistry, Physics and other requirements as outlined on the Department of Dental Sciences' web site (<http://www.isu.edu/departments/dentsci/>). In addition to fulfilling the minimal prerequisites, most students accepted into the program will have a bachelor's degree at the time of entry into

IDEP. Occasionally, some exceptional students who have completed the junior level (upper division) of college course work are admitted into the program.

Students are encouraged to work closely with their pre-dental academic advisor in making course selections which fulfill dental school and degree completion - requirements.

Formal application for admission to the IDEP program follows the guidelines outlined in the Department of Dental Sciences' web site and the Creighton University School of Dentistry Bulletin. The application process involves: taking the Dental Aptitude Test (DAT), completion of the American Dental Education Association Application Service centralized application, the Creighton Supplemental Application, and the IDEP Residency Certification Form. Early application is strongly encouraged to allow adequate time for completion of admission requirements and consideration by the admissions committee. Students may apply the summer prior to anticipated entry into the program. The selection process is normally completed in December prior to the year of program entry.

Further information concerning the program, admission requirements, and Residency Certification forms can be obtained by contacting the program at the following address:

Department of Dental Sciences
921 S 8th Ave Stop 8088
Pocatello ID 83209-8088
Phone: (208) 282-3289
<http://www.isu.edu/departments/dentsci>

Dental Sciences Faculty (p. 288)

Idaho Dental Education Program Courses (p. 588)

Dental Sciences Faculty

Chair, IAGD Program Director, and Associate Professor

Crawford, Brian R.,* Department Chair, IAGD Program Director, and Associate Professor, Dental Sciences; Coordinator, Office of Medical and Oral Health. D.D.S. 1984, University of Illinois at Chicago - College of Dentistry; General Practice Residency in Dentistry Certificate 1985, Naval Hospital Bethesda. (2005)

IDEP Director and Adjunct Instructor

Ybarguen, Jeffrey, Program Director, Idaho Dental Education Program; Adjunct Faculty, Dental Hygiene. B.S. 1997, Idaho State University; D.D.S. 2001, Creighton University. (2005)

Assistant Professor

Pilarski, Jason Q.,* Assistant Professor, Biological Sciences and Dental Sciences. B.S. 1993, Indiana University; M.S. 2000, Indiana University; Ph.D. 2006, Northern Arizona University. (2011)

Adjunct Faculty

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Idaho Dental Education Program

Required Basic Sciences Courses

Code	Title	Credits
BIOL 4400	Oral Histology and Embryology	3
BIOL 4400L	Oral History and Embryology Lab	0
BIOL 4419	Mammalian Histology	4
BIOL 4419L	Mammalian Histology Lab	0
BIOL 4432	Biochemistry	3
BIOL 4440	Human Gross Anatomy	4
BIOL 4440L	Human Gross Anatomy Lab	0
BIOL 4450	Head and Neck Anatomy	3
BIOL 4450L	Head and Neck Anatomy Lab	0
BIOL 4460	Neuroscience	4
BIOL 4464	Lectures in Human Physiology	4

Required Dental Sciences Courses

Code	Title	Credits
IDEP 4413	Dental Anatomy Lecture I	1
IDEP 4414	Dental Anatomy Laboratory	3
IDEP 4415	Dental Materials Science I	2
IDEP 4417	Interpersonal Relationships and Communication	1
IDEP 4423	Preventative Dentistry	2
IDEP 4425	History of Dentistry	1
IDEP 4426	Community Dentistry Field Experience	1
IDEP 4433	Oral Hygiene Technique	1
IDEP 4434	Dental Materials Science II	3
IDEP 4435	Occlusion Laboratory	1
IDEP 4444	Values and Ethics	1
IDEP 4454	Occlusion Lecture	1
IDEP 4463	Dental Radiology I	1
IDEP 4464	Dental Radiology Technique	1
IDEP 4465	Dental Radiology II	1
NTD 4495	Dental Nutrition	1

Optional Dental Sciences Courses

Code	Title	Credits
IDEP 6617 - Education Program *		2

* See Graduate Catalog (<http://coursecat.isu.edu/graduate>) for course information.

Emergency Management

Program Description	Type	Degree
Emergency Management, A.S. (p. 291)	Degree	A.S.
Emergency Management, B.S. (p. 291)	Degree	B.S.
Emergency Management, Minor (p. 292)	Minor	

Educational Goal:

Develop a professional emergency manager better positioned for the 21st century environment.

The following program educational objectives have been established for students in this program:

1. To gain an essential understanding of the basic fields and the interdisciplinary nature of the emergency management discipline.
2. To gain a fundamental knowledge of emergency management terminology and all phases of the emergency management discipline – preparedness, response, recovery, and mitigation.
3. To develop an understanding of how emergency managers think, gather and process data, and reach conclusions.
4. To think critically about hazards and disasters and what to do about them.
5. To understand how communities reduce vulnerability to hazards and cope with disasters.
6. To develop effective oral and written communication skills.
7. To engage in problem solving.
8. To be exposed to a rich variety of perspectives and ideas from across the Emergency Management community.

Career Development and Professional Growth Objective:

Within two to three years of graduation, the majority of our graduates in emergency management will be working in governmental agencies, non-profit agencies, or private industry and in many cases will be engaged in advance degrees. After five to ten years, many of our graduates will have established themselves as leaders within their field and communities.

Advising Information:

Completion of the A.S. in Emergency Management is required for the B.S. in Emergency Management.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the major academic plans (MAPs). All emergency management courses are live-online. Students must have minimum computer requirements as listed in the program information provided at <https://www.isu.edu/esd/>.

Course sequencing should be arranged to meet individual needs. In addition to other degree requirements, 36 credits of general education are required for this program. There are some general education classes that serve as prerequisite requirements for some emergency management courses. As such, students are strongly encouraged to make an advising appointment with Rachel Azzarito at 208-373-1760 or azzarach@isu.edu for more information.

Faculty (p. 290)

EMGT Courses (p. 554)

Emergency Management Faculty

Mikitish, Michael, Chair, Emergency Services Department; Director, Institute of Emergency Management. B.S. 1982, University of Arizona; M.S. 1992, Boston University; M.P.A. 2005, Boise State University.

B.S. Emergency Management

(120 credits)

This total includes the Associate Degree requirements.

Emergency Management Core Courses for the Bachelor of Science (33-39 cr)

Code	Title	Credits
EMGT 3301	Incident Command System Advanced	3
EMGT 3302	Hazards Mitigation	3
EMGT 3303	Disaster Response and Recovery Advanced	3
EMGT 3304	Integrated Systems in Emergency Management	3
EMGT 3305	Political and Policy Basis of Emergency Management	3
EMGT 3307	Social Dimensions of Disaster	3
EMGT 3308	Leading in Organizations	3
EMGT 3309	Crisis Management and Leadership	3
EMGT 4401	Research and Analysis Methods in Emergency Management	3
EMGT 4402	Critical Infrastructure Public Private Issues	3
EMGT 4404	Emergency Management Capstone	3

Additional Requirement (for those without practitioner experience)

Code	Title	Credits
EMGT 4403	Internship	3-6

Required Emergency Management Electives - 6 credits from the following list

Code	Title	Credits
EMGT 3306/FSA 3336	Hazardous Materials Management	3
EMGT 3320	Public Administration and Emergency Management	3

EMGT 3321	Sociology of Disaster	3
EMGT 3322	AgroTerrorism	3
EMGT 3323	Business and Industry Crisis Management	3
EMGT 3324	Geologic Hazards and Emergency Management	3
EMGT 3325	Flood Plain Management	3
EMGT 3326	International Disasters	3
EMGT 3327	Social Vulnerability Approach to Emergency Management	3
EMGT 3328	Nonprofit Sector and Disasters	3
EMGT 3329	Technology in Emergency Management	3
EMGT 3330	Incident Command Teams Position Specific	2
EMGT 4420	Legal Issues in Emergency Management	3
EMGT 4421	Public Health Preparedness	3
EMGT 4422	Terrorism in Emergency Management	3
EMGT 4430	Incident Management Teams All Hazards	3
ENGL 3307	Professional and Technical Writing	3
GEOL 4403	Principles of Geographic Information Systems	3
HCA 3350	Organizational Behavior in Healthcare	3
MGT 3312	Individual and Organizational Behavior	3
POLS 4434	Terrorism and Political Violence	3
POLS 4452	Budgeting and Finance	3
POLS 4455	Environmental Politics and Policy	3
POLS 4458	Public Administration Ethics	3

Students will also need to take other electives to meet all ISU degree requirements. (Please see Degree Requirements (p. 62).)

A.S. Emergency Management

(60 credits)

Emergency Management Core Courses (24 lower division credits)

Code	Title	Credits
EMGT 1110	Leadership and Influence	3
EMGT 1121	Principles of Emergency Management	3
EMGT 1122	Emergency Resources Management	3
EMGT 2221	Emergency Management Operations	3
EMGT 2222	Emergency Planning	3
EMGT 2223	Mitigation for Emergency Managers	3
EMGT 2224	Disaster Response and Recovery	3
EMGT 2225	Emergency Management Exercise Design	3

Code	Title	Credits
MATH 1153	Statistical Reasoning (Fulfills General Education Objective 3) ¹	3
PHIL 1103	Introduction to Ethics (Partially fulfills General Education Objective 4)	3
CHEM 1100	Concepts of Chemistry (Partially fulfills General Education Objective 5)	3-4
or CHEM 1101	Introduction to Chemistry	
or CHEM 1111	General Chemistry I	
ECON 1100	Economic Issues (Any of the following partially fulfills General Education Objective 6)	3
or ECON 2201	Principles of Macroeconomics	
or ECON 2202	Principles of Microeconomics	

University General Education Requirements (p. 57) (36 credits minimum) will be partially met with the following recommended courses:

POLS 1101	American National Government (Partially fulfills General Education Objective 6) ³	3	¹ MATH 1153 is a prerequisite for some upper division EMGT courses.
SOC 1101	Introduction to Sociology (Partially fulfills General Education Objective 6) ²	3	² Either SOC 1101 or SOC 1102 are prerequisites for some upper division EMGT courses.
or SOC 1102	Social Problems		³ POLS 1101 is a prerequisite for some upper division EMGT courses.

Minor in Emergency Management

Students seeking a minor in Emergency Management must complete the following:

Code	Title	Credits
EMGT 1121	Principles of Emergency Management	3
At least 9 credits from the AS or BS Emergency Management Core courses		9
EMGT elective credits		6
Total Credits		18

Nine (9) of the eighteen (18) total credits must be upper division.

Fire Services Administration

Program Description	Type	Degree
Fire Services Administration, A.S. (p. 294)	Degree	A.S.
Fire Services Administration, B.S. (p. 294)	Degree	B.S.

Educational Goal

As a result of rapid changes in firefighting and the administrative duties currently experienced in the field, academic degrees are available to those who have chosen firefighting as a career, to enhance their knowledge base as well as to prepare them for organizational leadership positions.

The National Fire Science Curriculum Committee (NFSCC) of the United States Fire Academy Fire and Emergency Service Higher Education (FESHE) is working to attain the following objectives:

1. Creation of degree programs that teach critical thinking skills by requiring a significant number of general education courses rather than mostly fire science courses;
2. Development of associate degree programs that are transferable to baccalaureate programs;
3. Establishment of a model fire science curriculum at the associate level that universally standardizes what students learn and facilitates the application of these courses toward certification goals; and
4. Collaboration between fire certification and training agencies and academic fire programs.

Advising Information

The Associate of Science in Fire Services Administration degree requirements for the Bachelor of Science in Fire Services Administration include general

Fire Service Administration Faculty

Mikitish, Michael, Chair, Emergency Services Department; Director, Institute of Emergency Management. B.S. 1982, University of Arizona; M.S. 1992, Boston University; M.P.A. 2005, Boise State University.

education and major courses. Students with an Associate of Applied Science degree in Fire Science/Technology may be eligible to utilize up to 60 lower-division credits from their AAS to satisfy the 120 credit requirement for the Bachelor of Science in Fire Services Administration degree. Contact Rachel Azzarito at 208-373-1760 or azzarach@isu.edu for additional requirements and information.

Students in the bachelor's program must be affiliated with a fire department in order to complete the internship requirement. The internship is required for those with less than five years in fire services.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the major academic plan (MAPs). All fire services administration courses are live-online. Students must have minimum computer requirements as listed in the program information provided at <http://www.isu.edu/esd/fireservices/>.

Course sequencing should be arranged to meet individual needs. In addition to other degree requirements, 36 credits of general education are required for this degree program. There are some general education classes that serve as prerequisite requirements for some fire services administration courses. As such, students are strongly encouraged to make an advising appointment with Rachel Azzarito at 208-373-1760 or azzarach@isu.edu for more information.

Faculty (p. 293)

FSA Courses (p. 570)

B.S. Fire Services Administration

27-30 upper division credits required in the major.

Lower division (AS requirements)¹, upper division, and electives must total a minimum of 120 credits.

Fire Service Administration majors may earn either a bachelor of science degree in Fire Service Administration without a minor or a bachelor of science degree in Fire Service Administration with a minor in Emergency Management.

Fire Services Administration Courses (27-30 upper division credits)

Students must complete all 18 credits of the FSA Core Requirements, 9 credits of the FSA Non-Core Electives, and 30-33 credits of Free Electives. The FSA Internship is required for students with less than 5 years in Fire Services.

Code	Title	Credits
Core Courses (18-25 credits)		
FSA 2250	Fire Science Integration ²	4
FSA 3323	Fire and Emergency Services Administration	3
FSA 3325	Personnel Management for the Fire Service Administrator	3
FSA 3326	Fire Prevention Organization and Management	3
FSA 3329	Political and Legal Foundations of Fire Protection	3
FSA 3331	Community Risk Reduction for Fire and Emergency Services	3
FSA 3333	Applications of Fire Research	3

FSA 4409	Practicum-Internship	1-3
Non-Core Elective Courses (9 credits required)		
FSA 3324	Analytic Approaches to Public Fire Protection	3
FSA 3327	Fire-Related Human Behavior	3
FSA 3328	Disaster Planning and Control	3
FSA 3330	Fire Protection Structures and Systems	3
FSA 3332	Fire Investigation and Analysis	3
FSA 3334	Fire Dynamics	3
FSA 3335	Emergency Medical Services Administration	3
FSA 3336/EMGT 3306	Managerial Issues of Hazardous Materials	3

Free Electives (30-33 credits)³

¹ AAS Fire Science Transfer Students

Per standard ISU policy, students with an Associate of Applied Science Degree in Fire Science or Fire Services Technology may utilize up to 60 lower-division credits from their AAS to satisfy the 120 credit requirement for the Bachelor of Science in Fire Services Administration degree.

² This course requirement can be waived for students who have completed an AS or a BS degree. FSA 2250 is designed for students who have an AAS in Fire Science.

³ Courses leading toward the Minor in Emergency Management (<http://coursecat.isu.edu/undergraduate/divisionhealth/emergencymanagement/minor-emergency-management>) are recommended, but OPTIONAL, to meet the 30-33 Free Elective credits.

A.S. Fire Service Administration

The following course is **required** and will satisfy General Education Objective 3.

Code	Title	Credits
MATH 1153	Statistical Reasoning	3

One of the following courses is **required** and will partially satisfy General Education Objective 5.

Code	Title	Credits
CHEM 1100	Concepts of Chemistry	4
Or		
CHEM 1101	Introduction to Chemistry	3
Or		
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5

University General Education Requirements (p. 57) (36 credits minimum) may be partially met with the following **recommended** courses:

Code	Title	Credits
ECON 1100	Economic Issues (Each partially satisfies General Education Objective 6)	3
or ECON 2201	Principles of Macroeconomics	

or ECON 2202	Principles of Microeconomics	
PHIL 1103	Introduction to Ethics (Partially satisfies General Education Objective 4)	3
POLS 1101	American National Government (Partially satisfies General Education Objective 6)	3

Fire Services Administration Core Courses (12 lower division credits)

Code	Title	Credits
FSA 1101	Building Construction for Fire Protection	2
FSA 1102	Fire Behavior and Combustion	2
FSA 1103	Fire Prevention	2
FSA 1105	Fire Protection Systems	2
FSA 1106	Principles of Emergency Services	2
FSA 1107	Principles of Fire and Emergency Services Safety and Survival	2

Fire Services Administration Non-Core Courses (4 credits)¹

Code	Title	Credits
FSA 2201	Fire Administration	2
FSA 2202	Legal Aspects of the Emergency Services	2

Additional Electives

Code	Title	Credits
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Students must complete additional FREE electives to total 60 credits.

¹ Completion of Fire Officer I (90 hours) meets this 4-credit non-core requirement.

Paramedic Science

Program Description	Type	Degree
Health Science, B.S. with Concentration in Emergency Medical Services (p. 273)	Degree	B.S.
Paramedic Science, A.S. (p. 299)	Degree	A.S.
Paramedic Science, Certificate (p. 299)	Certificate	
Community Paramedic, Certificate (p. 299)	Certificate	

Emergency Medical Services (EMS)

An Associate of Science degree in Paramedic Science, a Paramedic Science Academic Certificate, and a Bachelor of Science degree in Health Sciences with an Emergency Medical Services Concentration are offered. Additionally, the Community Paramedic Academic Certificate program is available to licensed or certified paramedics.

Educational Goal:

Develop an emergency medical services professional who is well prepared for the challenges of the 21st century.

These degrees are intended for students interested in a career in pre-hospital medicine and EMS education and management. As the field of EMS continues to grow and change, leaders and educators with a background in emergency medicine are needed to help shape the future of pre-hospital medicine and healthcare. This program is designed to prepare students for the clinical and administrative challenges of a career in emergency medical services and healthcare.

Paramedic Science Program

An Associate of Science degree in Paramedic Science and the Paramedic Science Academic Certificate are offered at the ISU-Meridian Health Science Center and ISU-Idaho Falls.

Educational Goal:

This program will provide students with the skills and knowledge to:

1. Prepare emergency medical technicians with the opportunity to attain an Associate of Science degree or academic certificate in paramedicine, which will qualify them to take the EMT-P examination through the National Registry of Emergency Medical Technicians.
2. Provide care to patients in and out of the hospital setting.
2. Prevent and reduce mortality and morbidity due to illness and injury through patient assessments and the provision of medical care.

Graduates of the program will also provide public education and health promotion, and participate in injury and illness prevention programs. They will function as facilitators of access to care, as well as be initial treatment providers. This degree will provide employment and additional educational opportunities for the student to become a registered, certified paramedic and work in the paramedic field in Idaho as well as surrounding states.

B.S. Health Science, Emergency Medical Services Concentration

Advising Information:

There are pre-professional requirements that must be completed before enrolling in the Paramedic Science program. The program curriculum includes three semesters of lecture, laboratory, and clinical field experience, followed by a three-month field internship. Contact Rachel Azzarito at 208-373-1760 or azzarach@isu.edu, or visit <https://www.isu.edu/esd/paramedic/> to learn more about the program requirements.

Community Paramedic Academic Certificate

The Community Paramedic Academic Certificate is offered by the Emergency Services Department under the College of Health Professions. This academic certificate meets the needs of licensed paramedics who wish to pursue an additional certification that will allow them to work in the emerging field of community paramedics. Community paramedicine is an expanding specialty that has increased across the nation in response to the Affordable Care Act. Paramedics who successfully complete this certificate will be eligible to assume a position as a community paramedic and assist in the development and implementation of a community paramedic program within their community.

Career Development and Professional Growth Objective:

Community paramedics work in collaboration with local public health agencies and primary care and specialty care providers by assessing and evaluating community services and systems in order to identify gaps in healthcare services in both urban and rural, medically under-served communities. Community Paramedics work as part of a multidisciplinary team that includes physicians, nurses, social workers, discharge planners, pharmacists, and other members of the healthcare team. Community paramedics help individuals and communities overcome barriers that prevent them from accessing and benefiting from healthcare services. They serve as advocates, facilitators, liaisons, community brokers, and resource coordinators. They also are direct services providers, ensuring basic and advanced levels of care appropriate to prevention, emergencies, evaluation, triage, disease management, and basic oral and mental health. The overall goal of the community paramedic is mentoring and empowering citizens, communities, and healthcare systems to achieve positive outcomes and to reach optimal levels of wellness for everyone.

Advising Information:

This is a 9 credit, 3 semester program that begins each January. Admission to this program requires either a current paramedic license or certification. Contact Rachel Azzarito at 208-373-1760 or azzarach@isu.edu, or visit <https://www.isu.edu/esd/communityparamedic/> to learn more information about the program requirements.

Emergency Medical Services Courses (p. 556)

Paramedic Science Courses (p. 618)

Community Paramedics Courses (p. 532)

Program Admissions Requirements

Students must be a graduate of or be enrolled in a health related program that awards an associate degree in Paramedic Science.

General Education

General Education requirements are met with an A.S. in Paramedic Science.

Core Requirements

Code	Title	Credits
Choose one of the following: 4		
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially fulfills Objective 5)	
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
(BIOL 3301 has a prerequisite of BIOL 1101 or BIOL 2227, either of which will partially fulfill Objective 5.)		
DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
Choose one of the following: 2		
HE/HCA 2210	Medical Terminology and Communication	
HO 0106	Medical Terminology	
Professional Competencies - Choose one of the following: 3		
HCA 2215	Healthcare Leadership	
HCA 4475	Health Law and Bioethics ¹	
HO 0107	Medical Law and Ethics	
PHIL 2230	Medical Ethics	
Healthcare Competencies - Choose one of the following: 3		
HCA 1115	US Health System	
ECON 4440	Economics of Health Care	
HCA 3340	Healthcare Policy ¹	
Communication Competencies - Choose one of the following: 3		
ANTH 4409	Clinical Medical Anthropology	
CMP 3308	Groups and Communication	
CMP 4422	Conflict Management	
COUN 3300	Interpersonal Skills in Health Professions	
ENGL 3307	Professional and Technical Writing ¹	
HE 4410	Health Behavior Change Theory and Application	
HE 4425	Patient Education Skills	
Diversity Competencies - Choose one of the following: 0-3		
Some courses in this group also fulfill one of the three previous competency areas. The credits for these courses are not counted twice if the course was chosen to complete an earlier core area.		
ANTH 4407	Anthropology of Global Health	
ANTH 4409	Clinical Medical Anthropology	
COUN 3300	Interpersonal Skills in Health Professions	

HCA 4475 Health Law and Bioethics

HE 4425 Patient Education Skills

Students must have an overall 2.0 Grade Point Average (GPA) in BS Health Science Core courses with no grades below a C-.

Total Credits 21-24

¹ Recommended courses that also fulfill ISU degree requirements for upper division credits.

Concentration Requirements

Code	Title	Credits
EMS 3300	Emergency Medical Services Operations and Management	3
EMS 3335	Emergency Medical Services Administration	3
EMS 4409	Emergency Medical Services Internship	3
9 credits of electives from one of the following tracks (Electives should be chosen in consultation with an advisor.) 9		
Leadership Management Track ²		
EMS 3310	Development and Strategic Planning	
EMS 3320	Disaster Response Planning and Management	
HCA 2215	Healthcare Leadership	
HCA 3340	Healthcare Policy	
HCA 3384	Human Resource Management in Healthcare Organizations	
HCA 4453	Healthcare Finance	
HCA 4465	Healthcare Operations and Quality	
HCA 4475	Health Law and Bioethics	
HE 2221	Introduction to Community and Public Health	
HE 4410	Health Behavior Change Theory and Application	
HE 4420	Health Program Planning and Implementation	
ECON 4440	Economics of Health Care	
EMGT 3301	Incident Command System Advanced	
EMGT 3305	Political and Policy Basis of Emergency Management	
EMGT 3307	Social Dimensions of Disaster	
EMGT 3308	Leading in Organizations	
EMGT 4420	Legal Issues in Emergency Management	
EMGT 4421	Public Health Preparedness	
FSA 3331	Community Risk Reduction for Fire and Emergency Services	
MGT 3312	Individual and Organizational Behavior	
POLS 4405	Democracy and Governance	
POLS 4454	Public Workplace Issues	
Clinical Track ²		
BIOL 2221/BIOL 2221L, BIOL 2235/BIOL 2235L, BIOL 4432, and BIOL 4445 meet pre-requisite requirements for Master's in Physician Assistant Studies.		
HCA 4465	Healthcare Operations and Quality	
HCA 4475	Health Law and Bioethics	

HE 2221	Introduction to Community and Public Health
HE 3340	Fitness and Wellness Programs
HE 3342	Stress and Emotional Health
HE 3383	Epidemiology
HE 4410	Health Behavior Change Theory and Application
HE 4420	Health Program Planning and Implementation
HE 4425	Patient Education Skills
HE 4430	Curriculum and Methods in Health Education
HE 4432	Community and Public Health
HE 4435	Health Program Evaluation and Research
EMGT 3307	Social Dimensions of Disaster
EMGT 4420	Legal Issues in Emergency Management
FSA 3329	Political and Legal Foundations of Fire Protection
FSA 3331	Community Risk Reduction for Fire and Emergency Services
MGT 3312	Individual and Organizational Behavior
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab
BIOL 3305	Introduction to Pathobiology
BIOL 4432	Biochemistry
BIOL 4445	Biochemistry I
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I
PSYC 3301	Abnormal Psychology
Educational Track ^{2,3}	
EMS 3310	Development and Strategic Planning
EMS 3320	Disaster Response Planning and Management
HCA 4465	Healthcare Operations and Quality
HCA 4475	Health Law and Bioethics
HE 2221	Introduction to Community and Public Health
HE 3340	Fitness and Wellness Programs
HE 3342	Stress and Emotional Health
HE 4410	Health Behavior Change Theory and Application
HE 4420	Health Program Planning and Implementation

HE 4430	Curriculum and Methods in Health Education
HE 4432	Community and Public Health
HE 4435	Health Program Evaluation and Research
EMGT 3307	Social Dimensions of Disaster
EMGT 4421	Public Health Preparedness
MGT 3312	Individual and Organizational Behavior

Community Paramedic Track

Students must complete all courses within the Community Paramedic track to satisfy the track. In addition, successful completion of this track qualifies students to be awarded the Community Paramedic Academic Certificate.

CPAR 3400	Introduction to Community Paramedics
CPAR 3410	Introduction to Community Assessment
CPAR 4410	Community Assessment
CPAR 4420	Pathophysiology for the Community Paramedic
CPAR 4440	Community Paramedic Clinical Practicum

Students must complete all Emergency Medical Services Concentration courses with a grade of "C" or higher.

Total Credits	18
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² EMS students who take HE courses are required to take HE 2221 first.

³ Community and Public Health Non-teaching Minor (21 credits) - available for those students with a Community and Public Health focus (see specific HE course listings in the Community and Public Health section of the Undergraduate Catalog). This minor would meet the elective credits required for the degree.

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education (AS in Paramedic Science fulfills general education requirements)	0
	Core Requirements (w/Recommended Courses)	21
	Concentration Requirements	18
	Upper Division Free Electives (Upper Division Core and Elective choices will count here.) ⁴	15
	Free Electives (Associates in Paramedic Science credits will count here.) ⁴	66
	Total Credits	120

⁴ A student's work at previous institutions and choices in the core and concentration requirements will affect the number of Upper Division Free Electives and Free Electives that are required. Please see an advisor to plan how to meet these requirements.

ISU Degree Requirements (p. 62)

ISU General Education (p. 57)

A.S. Paramedic Science

Associate of Science Degree: Paramedic Science

Degree Requirements

General Education Requirements:

Students must complete a minimum of 36 credits from the General Education Objectives (p. 57) to be eligible for the Associate's degree.

Pre-Professional Requirements:

Must be completed before acceptance into the Paramedic Science program. Please contact the program advisor or department chair <http://www.isu.edu/esd/paramedic/> before applying for admission to this program and prior to registering for any courses.

Code	Title	Credits
Pre-Professional Training (Offered through Workforce Training)		
	Emergency Medical Technician Basic	
	CPR - Basic Life Support or CPR for Healthcare Professionals	
General Education Requirement:		36
Pre-Professional Prerequisites (6 credits):		
HO 0111	Introduction to Anatomy and Physiology	4
HCA/HE 2210	Medical Terminology and Communication	2
or HO 0106	Medical Terminology	

Core Requirements (43 credits):

PARM 2211	Basic ECG Interpretation	3
PARM 2212	Paramedic Pharmacology	3
PARM 2213	Paramedic Fundamentals	2
PARM 2213L	Paramedic Fundamentals Lab	1
PARM 2214	Paramedic Pathophysiology	3
PARM 2215	Introduction to Paramedic Medicine	3
PARM 2217L	Paramedic Integration I Lab	1
PARM 2221	Medical Emergencies	3
PARM 2221L	Medical Emergencies Lab	1
PARM 2222	Trauma Care	2
PARM 2223	Advanced Emergency Care	2
PARM 2224	Special Populations	3
PARM 2224L	Special Populations Lab	1
PARM 2225	Advanced ECG Interpretation	2
PARM 2229	Paramedic Clinical Practicum I	1
PARM 2231	Rescue Operations	2
PARM 2237L	Paramedic Integration II Lab	1
PARM 2239	Paramedic Clinical Practicum II	3
PARM 2249	Paramedic Field Practicum II	6
Total Credits		85

Certificate in Community Paramedic Science

Community Paramedic Academic Certificate

Code	Title	Credits
CPAR 3400	Introduction to Community Paramedics	2
CPAR 3410	Introduction to Community Assessment	1
CPAR 4410	Community Assessment	2

CPAR 4420	Pathophysiology for the Community Paramedic	1
CPAR 4440	Community Paramedic Clinical Practicum	3
Total Credits		9

Certificate in Paramedic Science

Paramedic Science Academic Certificate

Certificate Requirements

Pre-Professional Requirements:

Must be completed before acceptance into the Paramedic Science program. Please contact the program advisor or department chair <http://www.isu.edu/esd/paramedic/> before applying for admission to this program and prior to registering for any courses.

Code	Title	Credits
Pre-Professional Training (Offered through Workforce Training)		
	Emergency Medical Technician Basic	
	CPR - Basic Life Support or CPR for Healthcare Providers	
Pre-Professional Prerequisites (6 credits):		
HO 0111	Introduction to Anatomy and Physiology	4
HCA/HE 2210	Medical Terminology and Communication	2
or HO 0106	Medical Terminology	

Core Requirements (43 credits):

PARM 2211	Basic ECG Interpretation	3
PARM 2212	Paramedic Pharmacology	3
PARM 2213	Paramedic Fundamentals	2
PARM 2213L	Paramedic Fundamentals Lab	1
PARM 2214	Paramedic Pathophysiology	3
PARM 2215	Introduction to Paramedic Medicine	3
PARM 2217L	Paramedic Integration I Lab	1
PARM 2221	Medical Emergencies	3
PARM 2221L	Medical Emergencies Lab	1
PARM 2222	Trauma Care	2
PARM 2223	Advanced Emergency Care	2
PARM 2224	Special Populations	3
PARM 2224L	Special Populations Lab	1
PARM 2225	Advanced ECG Interpretation	2
PARM 2229	Paramedic Clinical Practicum I	1
PARM 2231	Rescue Operations	2
PARM 2237L	Paramedic Integration II Lab	1
PARM 2239	Paramedic Clinical Practicum II	3

PARM 2249	Paramedic Field Practicum II	6
Total Credits		49

Medical Laboratory Science

Program Description	Type	Degree
Medical Laboratory Science, B.S. (p. 303)	Degree	B.S.

The student majoring in Medical Laboratory Science (formerly called Clinical Laboratory Science or Medical Technology) is provided with a broad base of theoretical and practical knowledge which will qualify him or her either for an immediate career in medical laboratory science or biomedical research or for further education in graduate or professional school. Medical laboratory scientists are vital healthcare detectives, uncovering and providing key medical information from laboratory analyses that assist physicians and other healthcare providers in making patient diagnoses and managing treatment, as well as in disease monitoring or prevention (maintenance of health). We use sophisticated biomedical instrumentation and technology, computers, and methods requiring manual dexterity to perform laboratory testing on blood and body fluids. Laboratory testing encompasses such disciplines as clinical chemistry, hematology, immunology, transfusion medicine, microbiology, and molecular biology.

Description of the Program

Medical laboratory scientists perform, develop, evaluate, correlate, and assure validity of laboratory information, direct and supervise medical laboratory resources and operations, and collaborate in the diagnosis and treatment of patients. Medical laboratory scientists practice in a variety of settings including hospitals, private laboratories, research and development laboratories, public health laboratories, and regulatory agencies. They also find positions in health care education and management.

Accreditation

The Idaho State University Medical Laboratory Science program is accredited by:

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Rd., Ste. 720
Rosemont, IL 60018-5119

Degree Alternatives

The Medical Laboratory Science Program at Idaho State University offers two degree alternatives at the baccalaureate level:

1. B.S. in Medical Laboratory Science
2. A second B.S. in Medical Laboratory Science for students who have completed degree requirements in related disciplines from accredited institutions, have all required prerequisites, and complete the Idaho State University program's 38-credit professional block of courses.

Medical Laboratory Science Program Prerequisites

Minimum of **16 credits of chemistry** to include: CHEM 1111, General Chemistry, CHEM 1112, General Chemistry, and additional credits such as Organic, Biochemistry, Analytical Chemistry, or Instrumental Analysis.

Minimum of **16 credits of biology** to include: Microbiology, Anatomy and Physiology, Immunology, Cell Biology, Genetics and Introduction to Pathobiology OR Human Pathophysiology.

Statistics is highly recommended.

Admission Criteria

Admissions are competitive. The deadline for priority admissions to the Medical Laboratory Science professional block of 38 credits for a start of the fall semester is February 28. At that time, up to 20 students at the Meridian and Pocatello campuses, and up to 10 students at the Idaho Falls campus will be selected. The qualified alternates, along with any late applicants, will be evaluated by August 1 for inclusion in the class if additional seats become available. Progression in the program is dependent upon successful academic progress as determined by Medical Laboratory Science faculty evaluation in December and May of the program year. Application materials, including criteria for selection and progression, are available from the School of Health Professions and may be downloaded from the Medical Laboratory Science website at <http://www.isu.edu/mls>. A program of study to permit progression through the Medical Laboratory Science curriculum over two years or online may be arranged with permission of the program director.

Certification as a Medical Laboratory Scientist (formerly Clinical Laboratory Scientist or Medical Technologist)

Certification by a national credentialing examination (Board of Certification) qualifies the graduate to practice as a medical laboratory scientist in hospitals and other practice venues where credentialing is required. Successful completion of the 32 academic credits and a minimum of 6 practicum credits of the Medical Laboratory Science professional block (total 38 credits) will permit the graduate to be eligible to sit for the national credentialing exam in Medical Laboratory Science.

The B.S. degree in Medical Laboratory Science may be awarded with the minimum number of credits in clinical laboratory practicum (1 credit hour) as long as the 120 total credit hour graduation requirement is satisfied. Such a degree could be of interest to students preparing for Medical Laboratory Science-related careers but not for employment in hospitals as medical/clinical laboratory scientists (medical technologists) where certification credentials are required.

Students planning to attend other professional schools after completing the degree in Medical Laboratory Science are strongly advised to check the requirements of those professional schools, particularly regarding requirements in physics, organic chemistry, and specific course prerequisites. Other professional programs may require different courses or prerequisites than outlined for the B.S. in Medical Laboratory Science.

Professional Block

The Medical Laboratory Science professional block is offered in live lecture/lab classes and via Moodle (course electronic delivery) in both Pocatello and Meridian (with the exception of the Practicum). With permission of the program director, the Medical Laboratory Science professional block may be taken online. The clinical laboratory practicum experience is arranged by Idaho State University Medical Laboratory Science faculty through clinical-affiliated hospitals and clinic sites throughout Idaho and adjacent states.

Admission to the Medical Laboratory Science courses that make up the professional block is by application to the program.

Faculty (p. 302)

Medical Laboratory Science Courses (p. 603)

Medical Laboratory Science Faculty

Program Director

Rachel Hulse,* Program Director, Assistant Professor, Medical Laboratory Sciences. B.S. 2006, University of Utah; M.S. 2012, Brigham Young University; M.S. 2015, University of Utah; (ASCP)CM. (2015)

Clinical Associate Professor

Galindo, Susan E., Clinical Associate Professor, Biological Sciences, Medical Laboratory Sciences. B.S. 1974, University of Nevada, Las Vegas; B.S. 1976, University of Nevada, M.S. 1979, University of Oklahoma Health Science Center. (2002)

Clinical Assistant Professor

Marjorie Montanus, Clinical Assistant Professor, Medical Laboratory Sciences. B.S. 1985, Illinois State University, M.S. 1992, University of Illinois at Chicago. (2017)

Professor Emeritus

Spiegel, Kathleen, Clinical Professor, Clinical Laboratory Science. 1991-2007

B.S. Medical Laboratory Science

Bachelor of Science in Medical Laboratory Science

The B.S. in Medical Laboratory Science prepares students as medical/clinical laboratory scientists or medical technologists and for graduate level programs in medical laboratory science or related disciplines. Students develop a strong background in the broad areas of microbiology, molecular biology, chemistry, hematology, transfusion medicine, biotechnology, and their medical and/or clinical applications. Medical Laboratory Science students gain the ability to carry out standard microbiological, molecular, biological and clinical techniques in the laboratory and to participate in research development, planning, and implementation. The B.S. in Medical Laboratory Science prepares students to have a reasonable expectation of passing a national qualifying exam for the medical laboratory profession and prepares students to be qualified to work at the professional experience level in a variety of settings. The General Education Requirements (p. 57) (all Objectives--36 credits minimum) and Total University Credit Requirements must be met. A minimum of 120 credits are required for graduation; 36 of these must be upper division credits.

A student may be awarded a B.S. degree in Medical Laboratory Science by fulfilling the following requirements:

A minimum of 120 semester credit hours to include:

1. Completion of the university General Education Requirements (8 out of 9 Objectives are required--see the General Education Requirements (p. 57) in the Academic Information section of this catalog). The following Objective courses also satisfy specific program requirements: 1) Objective 3, MATH 1153, Introduction to Statistics; 2) Objective 5 is met by the program's biology and chemistry requirements.
2. Completion of the following required courses:

Code	Title	Credits
MATH 1143	College Algebra	3
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	4
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3358	Genetics	3
BIOL 4451	Immunology	3
BIOL 4463 or BIOL 3305	Human Pathophysiology Introduction to Pathobiology	3-4

In addition, enough additional credits of Chemistry courses to reach 16 credits of Chemistry, which may include organic, inorganic, biochemistry, and/or analytical chemistry.

3. Completion of the Medical Laboratory Science Professional degree requirements (38 credits).
4. Completion of elective courses. Elective courses should be selected according to the student's interests and career needs, in conjunction with a faculty advisor. The total number of elective credit hours may include course prerequisites for general education requirements.

5. Credits earned in the required prerequisites or Medical Laboratory Science professional block with a grade of lower than a "C-" will not be counted towards the Medical Laboratory Science requirement, but will be calculated in the total credit calculation toward graduation.

A minimum of 120 credits is required for graduation. Students who have completed the requirements for a B.S. degree in a related discipline at an accredited university, with preparation similar to that described above for the B.S. in Medical Laboratory Science degree may apply to the program and, if accepted, complete the Medical Laboratory Science Professional Block, which would result in the award of a second B.S. degree. Completion of the minimum of a B.S. degree and the professional block will qualify the student to sit for national certification exams. Credit may be given for experience and coursework at the discretion of the Medical Laboratory Science program director. Students whose preparation does not include the required courses listed under the B.S. in Medical Laboratory Science may be required to take additional courses outside the professional block at the discretion of the Medical Laboratory Science program director. University policy requires a minimum of 32 additional credits earned beyond the first B.S. degree in order to award a second B.S. degree. Credits used to satisfy the requirements for the first degree may not be used toward the second degree's 32 credit requirement.

Required Courses:

Code	Title	Credits
MLS 4410	Phlebotomy Practicum	1
MLS 4412	Urinalysis and Body Fluids	1
MLS 4414	Hematology and Hemostasis	3
MLS 4416	Medical Microbiology I	3
MLS 4418	Medical Chemistry and Instrumentation	3
MLS 4420	Medical Immunology	2
MLS 4422	Basic Concepts in Transfusion Medicine	2
MLS 4424	Medical Laboratory Fundamentals	1
MLS 4431	Medical Microbiology II	3
MLS 4433	Medical Laboratory Science Management and Education	2
MLS 4435	Molecular Diagnosis	3
MLS 4437	Critical Analysis of Lab Information	3
MLS 4439	Advanced Concepts in Transfusion Medicine	2
MLS 4441	MLS Research ¹	1-3
MLS 4455	MLS Student Laboratory Practices	2
MLS 4490	General Site Practicum	1-6
MLS 4491	Microbiology Practicum	2
MLS 4492	Hematology and Urinalysis Practicum	2
MLS 4493	Transfusion Blood Bank Practicum	1
MLS 4494	Chemistry and Automation Practicum	1
Total Credits		39-46

¹ This is a 1-credit course that may be taken for up to 3 credits.

A total of 6 credits of Practicum experiences (minimum of 480 hours) is required to be eligible to take Board of Certification (BOC) national examinations. One (1) credit of Practicum experience (80 hours) is required for a B.S. in Medical

Laboratory Science but the graduate will NOT be eligible for BOC national certification.

Nutrition and Dietetics

The Dietetic Programs offers a baccalaureate degree in dietetics and post-baccalaureate certificate dietetic internship program.

Program Description	Type	Degree
Dietetics, B.S. (p. 307)	Degree	B.S.
Dietetic Internship (DI), Post-Baccalaureate Certificate (p. 308)	Certificate	

Didactic Program in Dietetics

The mission of the Idaho State University Didactic Program in Dietetics (DPD) is to educate individuals through didactic and practical experiences in food and nutrition and to develop visionary and competent graduates who will be prepared for supervised practice leading to eligibility for the Commission on Dietetic Registration (CDR) credentialing exam to become a registered dietitian nutritionist.

Prospective and current students should schedule an advising appointment with the program director or dietetic faculty member to ensure understanding of the requirements of the program, curriculum, supervised practice experience, and the credentialing exam to become a registered dietitian nutritionist.

Completion of the required course work and attainment of a Bachelor of Science degree in Dietetics makes one eligible to apply for admission into a Supervised Practice Program. The graduate must complete a Supervised Practice Program (e.g. Dietetic Internship) prior to becoming eligible to take the credentialing exam to become a registered dietitian nutritionist.

For information about the Dietetic Internship and Master of Science in Dietetics, please go to the Dietetics (<http://coursecat.isu.edu/graduate/healthscience/dietetics>) section of the Graduate Catalog.

NOTE: Enrollment in the Idaho State University Didactic Program in Dietetics and/or fulfillment of specific requirements does NOT ensure admission into the ISU Dietetic Internship Program.

Program Goals and Outcome Measures

The following goals and outcome measures were identified in the 2017 Program Self Study and Site Visit for continued accreditation and were revised to meet the 2018 Accreditation Council for Education in Nutrition and Dietetics (ACEND) standards. These goals and outcome measures reflect the mission of the Idaho State University DPD and are the basis for program evaluation and effectiveness.

Program Goal One: Prepare graduates to perform proficiently in a dietetic supervised practice program in preparation to be a competent entry-level dietitian nutritionist.

Outcome Measures

1. At least 80% percent of program students complete the program/degree requirements within 3 years (150% of program length).
2. At least 70% of program graduates apply for admission to a supervised practice program prior to or within 12 months of graduation.
3. At least 60% of program graduates are admitted to a supervised practice program within 12 months of graduation.
4. The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for dietitian nutritionists is at least 80%.

5. At least 70% of responding graduates will report an aggregate score of 4 or higher out of 5, indicating the strong preparation that the DPD program provided them for their supervised practice experience.
6. At least 70% of responding Supervised Practice Program Directors will rate satisfaction with program graduates as having strong preparation (aggregate score of 4 or higher out of 5) for supervised practice.

Program Goal Two: To provide experiential learning and leadership opportunities outside of the traditional classroom setting to enrich the DPD graduates' education and preparation for professional practice.

Outcome Measures

1. 100% of graduates will have participated in learning activities in each of the three experiential settings: clinical (Medical Nutrition Therapy), community, and food service systems management.
2. At least 50% of graduates will have participated in student organizations, served in leadership roles, and/or been recognized with awards/nominations prior to graduation.
3. At least 50% of graduates will participate in professional organizations within 18 to 24 months following graduation.

The Didactic Program in Dietetics (DPD) is accredited by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics (120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, (800) 877-1600) <http://www.eatrightpro.org/resources/acend>.

Dietetic Internship (DI) Program

The mission of the Idaho State University Dietetic Internship is to prepare caring and competent entry-level registered dietitian nutritionists who collaborate with other health professionals through a supervised practice experience that exceeds the performance standards of the Accreditation Council for Education in Nutrition and Dietetics.

The DI Program provides for supervised experience in clinical, community, and administrative dietetics leading to a certificate of completion. Graduates of the Dietetic Internship Program will be eligible to take the credentialing exam to become a registered dietitian nutritionist.

The following goals and outcome measures were identified in the 2017 Program Self Study and Site Visit for continued accreditation and were revised to meet the 2018 Accreditation Council for Education in Nutrition and Dietetics (ACEND) standards. These goals and outcome measures reflect the mission and philosophy of the Idaho State University Dietetic Internship and are the basis for program evaluation and effectiveness.

Program Goals and Outcome Measures

Program Goal One: Program graduates are professionally competent entry-level registered dietitian nutritionists through a comprehensive supervised practice experience.

Outcome measures:

1. At least 80% of program interns complete program within 13.5 months (150% of program length).
2. Of graduates who seek employment, 75% are employed in nutrition and dietetics or related fields within 12 months of graduation.
3. 90% of program graduates take the CDR credentialing exam for dietitian nutritionists within 12 months of program completion.

- The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for dietitian nutritionists is at least 80%.
- 90% of working RDNs over a five-year period will be satisfied that the DI program adequately prepared them for effective, entry-level careers in dietetics.

Program Goal #2: Prepare program graduates to be caring registered dietitian nutritionists who promote collaboration within their practice setting.

Outcome Measures:

- 50% of graduates over a five-year period will participate in professional organizations within the first year following graduation.
- Of those employers who respond to the survey, 90% of employers will rate program graduates' preparation for entry-level practice as satisfactory or higher.
- 50% of employers over a five-year period will rate program graduates' collaboration within their employment setting as satisfactory or higher.

Program Overview

Internship Components: Community dietetics, clinical dietetics, and food service management are all major areas of emphasis. Interns rotate through various sites, including: medical centers, university food services, long-term care facilities, local health departments, local school districts, a diabetes center, nephrology center, and out-patient clinics.

Number of Positions: There are eighteen (18) internship positions - Eight (8) interns in Meridian, eight (8) interns in Pocatello, and two (2) interns in Twin Falls.

Selection Process: Applicants are primarily ranked according to their grade point average (minimum 3.0), work experience, and references. Finalists will participate in a 15-20 minute interview.

Internship Length: The length of the internship is two academic semesters: Fall (August through mid-December) and Spring (mid-January through mid-May).

Weekly Time Requirement: Approximately 40 hours per week are spent in seminars and rotations. An additional 20 hours per week are usually required for preparation and completing assignments. Interns work in facilities Monday through Thursday and some Fridays. Remaining Fridays are spent in seminar. Travel time has not been included, but some rotations are 20-50 miles away.

Housing

Dietetic Internship students may choose to live in University housing or in a variety of off-campus sites. In Meridian and Twin Falls, no University housing is available.

Transportation

Each student should have his or her own car or, at least, access to one. Some rotation sites are up to one hundred miles away (e.g., Pocatello to Twin Falls).

Liability for safety in travel to and from assigned rotation sites will rest on the individual dietetic intern. In no way does the Dietetic Programs or Idaho State University assume liability for interns for safety in travel to and from assigned rotation sites.

The Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics (120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, (800) 877-1600) <http://www.eatrightpro.org/resources/acend>.

NTD Faculty (p. 306)

NTD Courses (p. 545)

Nutrition and Dietetics Faculty

Professor

Blanton, Cynthia A., Professor, Nutrition and Dietetics. B.S. 1990, California State University, Northridge; Ph.D. 2000, University of California, Davis. (2007)

Associate Professor

Weeden, Allisha M., Associate Professor, Nutrition and Dietetics. B.S. 2002, Kansas State University; M.S. 2004, University of Kansas; Ph.D. 2008, Kansas State University. (2009)

Clinical Associate Professor

McKnight, Laura E. G., Dean, College of Health Professions, Clinical Associate Professor, Nutrition and Dietetics. B.S. 1986; M.P.H. 1999, Idaho State University. (1994)

Clinical Assistant Professors

Byington, Charlene M., Dietetic Internship Director and Clinical Assistant Professor, Nutrition and Dietetics. B.S. 2002, Idaho State University, M.Ed. Idaho State University 2010. (2015)

Gordon, Barbara J., Director, Dietetic Programs and Clinical Assistant Professor, Nutrition and Dietetics. B.S. 1989, Simmons, M.B.A. 2005 Johns Hopkins University. (2018)

Hilvers, Kristen L., Internship Coordinator Meridian and Clinical Assistant Professor, Nutrition and Dietetics. B.S. 1993 University of Idaho, M.S. Finch University, Chicago 2003. (2018)

Reader, Jenifer L., Clinical Assistant Professor, Nutrition and Dietetics. B.S. 2007, Idaho State University, M.H.E. 2017, Idaho State University. (2018)

Emerita

Dundas, Mary L., Professor, Health and Nutrition Sciences. 1996-2009

Schneider, Ruth C., Clinical Associate Professor, Dietetics. 2001-2017

B.S. Dietetics

Program Admissions Requirements

1. Accumulative GPA in both required prerequisite courses and professional courses of 3.0 or above on a 4.0 scale.
2. Completion of required courses with a grade of C- or higher:

Code	Title	Credits
BIOL 1101	Biology I (Partially satisfies General Education Objective 5)	4
BIOL 1101L	Biology I Lab (Partially satisfies General Education Objective 5)	0
BIOL 2221	Introductory Microbiology	3
BIOL 2221L	Introductory Microbiology Laboratory	1
BIOL 3301	Advanced Human Anatomy and Physiology 1	3
BIOL 3301L	Advanced Human Anatomy and Physiology 1 Lab	1
BIOL 3302	Advanced Human Anatomy and Physiology 2	3
BIOL 3302L	Advanced Human Anatomy and Physiology 2 Lab	1
CHEM 1101	Introduction to Chemistry (Partially satisfies General Education Objective 5)	3
CHEM 1102	Essentials of Organic and Biochemistry (Partially satisfies General Education Objective 5)	3
CHEM 1103	Essentials of Organic and Biochemistry Laboratory (Partially satisfies General Education Objective 5)	1
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ECON 2201	Principles of Macroeconomics (Partially satisfies General Education Objective 6)	3
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
HCA/HE 2210	Medical Terminology and Communication	2
NTD 1101	Introduction to Dietetics	1
NTD 2205	Foods and Meal Management	3
NTD 2205L	Foods and Meal Management Lab	1
NTD 2239	Nutrition (Partially satisfies General Education Objective 5)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
SOC 1101	Introduction to Sociology (Partially satisfies General Education Objective 6)	3

Completion of ISU General Education requirements is strongly suggested prior to applying and must be completed before graduation-- see the General Education Requirements (p. 57) described in the Academic Information section of this catalog.

Application Process

The Didactic Program in Dietetics consists of prerequisites, professional courses and a final set of "seat" courses which must be taken the senior year. All prerequisites, professional courses and "seat" courses must be completed with a C- or better to earn a Bachelor of Science degree in Dietetics and obtain the Verification Statement required for applying for supervised practice programs. Students submit an application for the "seat" courses, which are NTD 4401 Medical Nutrition Therapy I, NTD 4402 Medical Nutrition Therapy II, and NTD 4402L Medical Nutrition Therapy II Lab, taken in the senior year. Students can apply a year in advance once admission requirements are met. Those applications will be considered for pre-award for the final year in the program. Other professional courses can be taken once the course prerequisites are met. Applications will only be considered if the above-mentioned admission requirements (1 and 2) are met.

DUE DATE: February 15th or the following workday if the 15th falls on a weekend or university holiday.

Applicants must complete the following:

1. DPD application form available on the program website at <http://www.isu.edu/dietetics/>.
2. A written letter of application stating reasons for choosing dietetics as a career and professional goals.
3. Official transcripts of all colleges and universities attended (Other than ISU) must be submitted unless required classes taken at other colleges or universities are already listed on the student's ISU transcript. Current ISU students do not need to submit transcripts. Mail transcripts to the DPD Director at: STOP 8117, 921 S. 8th Ave, Pocatello, ID 83209-8117
4. \$25 non-refundable application fee (use the link on the program website <http://www.isu.edu/dietetics/>).

Application Review:

1. Applications are reviewed by a committee of Dietetic Faculty. All materials must be submitted for the application to be reviewed and must be post marked by the DUE DATE of February 15th or the following workday if the 15th falls on a weekend or university holiday.
2. The following criteria are considered in the application review by the DPD Selection Committee:
 - a. ACCUMULATIVE GPA in both required prerequisite courses and professional courses completed
 - b. Honors/Activities
 - c. Volunteer/Work Experience
 - d. Written letter of application
3. Due to the limited number of seats, achievement of minimum standards does not ensure admission in the DPD.

Notification and Acceptance Requirements

1. Applicants are notified in writing of acceptance status by the Friday before Spring Break. Acceptance status can be 1) accepted to a seat for the upcoming academic year; 2) accepted to a seat for the following academic year; 3) alternate for a seat for the upcoming academic year, or 4) not accepted. Students must accept their seat in writing (email) by the communicated due date to the DPD Director.

2. Students enrolled in Medical Nutrition Therapy (MNT) will have some required experiences at medical facilities within the local community. In order to be in alignment with facility policies, all MNT students must have updated vaccination records.
 - a. Before attending off campus experiences in medical facilities, students must show proof of the following vaccinations:
 - i. Negative PPD (TB test) in the past 12 months
 - ii. Proof of 2 MMR vaccinations or titer proving immunity
 - iii. Proof of 3 Hep B vaccinations or titer proving immunity
 - iv. Proof of 2 varicella vaccinations or titer proving immunity
3. Students enrolled in MNT must complete a background check at their own expense, complete a HIPPA training, and submit proof of health insurance prior to obtaining required course experiences in local health care facilities.

Graduation Requirements

1. Students must apply for graduation at least one semester before all requirements are completed.
2. Students must complete 120 credit hours.
3. Students must complete all courses required for the DPD with a C- or better.
4. Students must successfully complete ISU's General Education Requirements.

Didactic Program in Dietetics Required Courses

Code	Title	Credits
ACCT 3303	Accounting Concepts	3
ENGL 3307	Professional and Technical Writing	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
MGT 3312	Individual and Organizational Behavior	3
NTD 3312	Quantity Foods	3
NTD 3312L	Quantity Foods Laboratory	1
NTD 3360	Nutrition Through the Lifecycle	3
NTD 4400	Nutrition Assessment and Instruction	3
NTD 4401	Medical Nutrition Therapy I	3
NTD 4402	Medical Nutrition Therapy II	3
NTD 4402L	Medical Nutrition Therapy II Lab	1
NTD 4407	Principles of Community Nutrition	3
NTD 4408	Applications in Community Nutrition	3
NTD 4410	Management in Dietetics	3
NTD 4457	Experimental Foods	3
NTD 4461	Nutritional Biochemistry I	3
NTD 4470	Dietetics Senior Seminar	2
NTD 4485	Nutritional Biochemistry II	3

In addition: Electives to total 120 credits. See advisor regarding class sequencing.

Dietetics Internship

Required Courses¹

Code	Title	Credits
NTD 4486	Dietetic Internship Seminar I	6
NTD 4487	Dietetic Internship Seminar II	6
NTD 4488	Internship in Dietetics I	11
NTD 4489	Internship in Dietetics II	11

¹ A \$1,450.00 course fee will be applied in addition to tuition for each NTD 4488 and NTD 4489.

Physician Assistant Studies

Program

The Physician Assistant (PA) Program at Idaho State University awards the Master of Physician Assistant Studies (MPAS) degree and a PA certificate upon successful completion of its 24-month graduate curriculum. A new class of students is enrolled each fall semester. In addition to a baccalaureate degree, students must have a cumulative prerequisite GPA of 3.0 or higher for the following required prerequisite courses: Biochemistry, Microbiology, Human Anatomy (as a single course or as part of a two semester combined anatomy and physiology course), Human Physiology (as a single course or as part of a two semester combined anatomy and physiology course), Statistics, and Abnormal Psychology. For information about requirements and courses, please

refer to the Graduate Catalog (<http://coursecat.isu.edu/graduate>) or the program website, <https://www.isu.edu/pa/>.

Accreditation

The program is fully accredited by the Accreditation Review Commission on the Education of Physician Assistants, Inc. (ARC-PA). Graduates of this program are eligible to take the NCCPA's Physician Assistant National Certifying Exam (PANCE).

Faculty (p. 309)

Courses (p. 633)

Physician Assistant Studies Faculty

Program Director and Associate Professor

Phelps, Paula,* Program Director and Chair/Associate Professor, Physician Assistant Studies. B.A. 1988, Earlham College; P.A. 1995, University of Utah; M.H.E. 2000, Idaho State University. (1995)

Associate Program Director and Assistant Professor

Sparrell, Marvin C., Associate Program Director and Clinical Assistant Professor, Physician Assistant Studies. B.S. 1990, Boise State University; M.P.A.S. 2003, University of Utah. (2009)

Medical Directors

Caldwell: Anstett, Richard, MD

Meridian: D'Souza, Sherwin, MD

Pocatello: McClusky, David, II, MD

Assistant Professors

Sierra, Talia, Assistant Professor, Physician Assistant Studies. B.S. 2006, Albertson College of Idaho; M.P.A.S. 2008, Idaho State University. (2013)

Clinical Assistant Professors

Bunnage, Corbin B.,* Clinical Assistant Professor, Physician Assistant Studies. B.S. 1999, Idaho State University; M.S. 2004, A. T. Still University of Health Sciences. (2003)

Forbes, Jennifer L., Clinical Assistant Professor, Physician Assistant Studies. B.S. 1997, University of South Alabama; M.H.S. 2001, University of South Alabama. (2012)

Hall, Christine M., Clinical Assistant Professor, Physician Assistant Studies. B.S. 1991, M.A. 1993, Duke University; M.P.A.S. 2003, Oregon Health and Science University School of Medicine. (2015)

Johnson, Jeffery, Clinical Assistant Professor, Physician Assistant Studies. B.S. 2002, Idaho State University; PharmD. 2000, Idaho State University. (2011)

Martin, David E.,* Academic Coordinator and Clinical Assistant Professor, Physician Assistant Studies. B.S. 1980, University of Oklahoma; M.P.A.S. 2000, University of Nebraska. (2003)

Papa, Jared W.,* Service Learning Coordinator and Clinical Assistant Professor, Physician Assistant Studies. B.S. 2001, Brigham Young University; M.P.A.S. 2003, Pacific University. (2008)

Smetanka, Rachel D.,* Clinical Assistant Professor, Physician Assistant Studies. B.A. 1996, University of Minnesota-Duluth; Ph.D. 2001, University of Iowa; M.S. 2013, Idaho State University. (2013)

Smith, Anntara, Clinical Coordinator and Clinical Instructor, Physician Assistant Studies. B.S. 2003, Idaho State University; M.S. 2014, A. T. Still University. (2011)

Talford, David B.,* Master's Project Coordinator and Clinical Assistant Professor, Physician Assistant Studies. B.S. 1999, Des Moines University; M.S. 2007, University of Nebraska. (2007)

Director of Clinical Site Development

Allen, Vicki, RN, CLNC

Emeritus

Whitaker, Kent B.,* Clinical Assistant Professor, Physician Assistant Studies. 1998-2019

Radiographic Science

Program Description	Type	Degree
Radiographic Science, B.S. (p. 312)	Degree	B.S.
Diagnostic Medical Sonography, Certificate (p. 313)	Certificate	

Accreditation

Idaho State University is fully accredited by the Northwest Commission on College and Universities (NWCCU). The program is programmatically accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182, phone number 312-704-5300, mail@jrcert.org, http://www.jrcert.org.

Overview

The Radiographic Science program is designed to facilitate the development of professional radiologic technologists who have acquired the technical skills and knowledge necessary to fulfill the needs required in the medical imaging setting. The radiologic technologist plays a vital role in the health care team. Due to the rapid growth of technology in the health care setting, there is an increased demand for qualified personnel.

Philosophy

Idaho State University's Radiographic Science program was developed with the philosophy that didactic education and clinical experience, which includes "hands on," should happen together for continuity during learning. Therefore, during the entire program, the student learns in the laboratory setting and applies those acquired skills in the clinical setting. This happens on a weekly basis. Furthermore, in the classroom, students acquire the theoretical information necessary to perform as technologists. The next step involves laboratory experiences where the opportunity to apply technological skills is acquired by using phantoms and simulations. Students then progress and perfect their skills by working with technologists in a clinical environment. Additionally, several of the classes are taught by the Physics, Biology, and Health Care Administration faculty. This is atypical of most Radiographic Science programs and is a unique feature that sets the program apart. Our philosophy is that students who learn from experts become experts. When graduation approaches, students are ready to enter the profession confidently.

Mission

The mission of the Radiographic Sciences program is to provide students with both the academic and technical foundations to competently and safely perform radiologic procedures, to prepare qualified imaging technologists who will ethically respond to the needs of patients with technical competence and compassion, and who will assume a vital professional role as a medical team member.

Vision

- Prepare leaders in radiography for today and tomorrow by providing baccalaureate education.

Core Values

The Radiographic Science Program is committed to the following core values:

- **Academics** – promoting excellence in all academic endeavors.
- **Knowledge** – recognizing the significance of new knowledge in a profession that is predisposed to change while maintaining traditional values and emphasizing the needs of the patient.
- **Dedication** – helping meet the statewide and regional needs by providing access to quality education to prospective students.
- **Community** – helping meet the needs of the community in the health care setting by providing competent, qualified, technologists who are eligible upon graduation to sit for the national certification examination in radiography sponsored by the American Registry of Radiologic Technologists (ARRT).

Goals

The faculty members in the Radiographic Science Program promote knowledge and discovery for all students by committing to the following goals:

1. Students will use critical thinking and problem-solving skills.
2. Students/graduates will be clinically competent.
3. Students will be able to effectively communicate.
4. Students will demonstrate the importance of professional growth and development.

Certification

Graduates of the program in Radiographic Science at Idaho State University are eligible to sit for the national certification examination sponsored by the American Registry of Radiologic Technologists (ARRT).

Degree Programs

The Radiographic Science program at Idaho State University offers a Bachelor of Science degree.

The Bachelor of Science degree is a four-year curriculum. During the first two years the student takes general education, basic science, and business courses at the university. During the two professional years, the student studies and practices the clinical application of radiography at the university's energized laboratory and at affiliated hospitals and clinics. The graduate is eligible to take the national examination for certification administered by the ARRT.

The Radiographic Science program is designed to develop the technical skills and knowledge necessary for the student to satisfactorily function as a radiographer. Learning experiences enable the student to demonstrate competency in the technical aspect of the profession as well as human relations. The program further seeks to develop student interest in the professional societies and provides methodology to maintain competency upon graduation.

Upon completion of the program, the graduate will be able to work as a radiographer in a hospital, clinic, or private office and effectively perform his/her duties with patients in a responsible, ethical, and professional manner. Because of the rapid growth of the medical field, there is a need for well-trained radiographers.

Academic Standards

A grade of "C-" or better is required in all prerequisite and professional courses. A student who fails to achieve a minimum of a "C-" grade in a course designated Radiographic Science (RS) will be dismissed from the program and prohibited

from taking any further courses with the RS designation until the course(s) in question has/have been completed with (a) minimum grade(s) of "C-."

The student is required to reapply to the program, in writing, at least one (1) month prior to the first day of classes of the semester in which readmission is sought. Additional details regarding readmission can be found in the current Radiographic Science Student Handbook (<http://www.isu.edu/radsci/documents/studenthandbook.pdf>).

RS Faculty (p. 311)

RS Courses (p. 641)

DMS Courses (p. 542)

Radiographic Science Faculty

Program Director and Assistant Professor

Christopher Wertz, MSRS, R.T.(R)(ARRT)

Clinical Coordinator and Assistant Clinical Professor

Wendy Mickelsen, MHE, R.T.(R)(M)(ARRT)

Assistant Professor

Trevor Ward, MSRS, R.T.(R)(CT)(MR)(ARRT)

Clinical Affiliate Instructors

R Michelle Beard, AAS, R.T.(R)(M)(ARRT)

Breezy Bird, BSRS, R.T.(R)(M)(ARRT)

Shannon Bitton, BSRS, R.T.(R)(ARRT)

Jacob Campbell, BSRS, R.T.(R)(ARRT)

Davin Gilbert, BSRS, R.T.(R)(CT)(ARRT)

Natalie Godby, AAS, R.T.(R)(M)(ARRT)

Tom Hammer, BS, R.T.(R)(ARRT)

Isabel Hopkins, BSRS, R.T.(R)(CT)(ARRT)

Benjiman Jacobsen, BSRS, R.T.(R)(ARRT)

Adam Jacobson, BSRS, R.T.(R)(N)(CT)(ARRT)

Brett Jensen, BSRS, R.T.(R)(ARRT)

Lanny Keeling, AAS, R.T.(R)(MR)(ARRT)

Elizabeth Lopez, BSRS, R.T.(R)(ARRT)

Christy Pope, BSRS, R.T.(R)(ARRT)

Teresa Rhodes, BSRS, R.T.(R)(M)(CT)(ARRT)

Randy Vanover, BSRS, R.T.(R)(CT)(ARRT)

B.S. Radiographic Science

Admission Procedures

Admission to the Radiographic Science program is competitive. Students will be evaluated and points awarded by using grades in the core objectives and program required courses. Additional points are awarded to ISU Students, residents of the State of Idaho, students who complete BIOL 3301/3302, and 2nd time and subsequent applicants **who have completed all of the prerequisite classes the previous year**. Students will be selected using GPA and any additional points earned by the student. A minimum grade point average of 3.0 is required. Procedures for admission to the program include:

1. Complete procedures for admission to the University.
2. Complete and return the Radiographic Science Application Form and \$100 fee.
3. Complete the necessary prerequisite course work.
4. Submit *official* transcripts of all college and/or university courses completed, including advanced placement or dual-enrolled courses.

Application Deadline

The above admission procedures must be completed and received by the Radiographic Science Program by **May 15th** of the year the student is seeking admission. If the 15th falls on a weekend or holiday, the application must be received by the Friday preceding the deadline date. The first professional year begins in the fall semester.

Idaho State University Radiographic Science Program Policy for Transfer of Credit From Other Radiography Programs

The Idaho State University Radiographic Science program will award up to 44 credits in radiography for programs completed at accredited hospital based, university or college based, military based, and/or accredited vocational-technical schools. To be eligible to receive credit, the student must:

1. Be a currently registered radiographer, or RT(R).
2. Have worked as a radiographer during the past three years or amount of time to remain proficient to be determined by the evaluating committee.
3. Submit evidence of experience and curriculum including:
 - a. certificate of successful completion of registry.
 - b. currently registered by the ARRT.
 - c. certified list of courses and descriptions of curriculum from accredited hospital-based, university or college-based, military-based, and/or accredited vocational technical programs.
 - d. *official* college transcripts.

A student may be awarded a Bachelor of Science in Radiographic Science by fulfilling the following requirements:

Code	Title	Credits
ISU General Education Requirements		
Program Admission Requirements		
CHEM 1101	Introduction to Chemistry (Partially satisfies General Education Objective 5)	3
INFO 1101	Digital Information Literacy (Satisfies General Education Objective 8)	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3

BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
PHYS 1100	Essentials of Physics (Partially satisfies General Education Objective 5)	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
HCA 2210 or HE 2210	Medical Terminology and Communication Medical Terminology and Communication	2
MATH 1143	College Algebra	3
RS 1105	Introduction to Radiographic Science	1
ACCT 3303	Accounting Concepts	3
MGT 3312	Individual and Organizational Behavior	3
HCA 3384 or MGT 4473	Human Resource Management in Healthcare Organizations Human Resource Management	3
HCA 4475	Health Law and Bioethics	3
Professional Courses ¹		
RS 3310	Radiographic Methods I	2
RS 3311	Radiographic Methods II	2
RS 3312	Radiographic Methods III	2
RS 3320	Radiographic Imaging Applications	1
RS 3320L	Radiographic Imaging Applications Laboratory	1
RS 3325	Patient Care in Radiography	3
RS 3330	Radiographic Exposure	3
RS 3330L	Radiographic Exposure Lab	0
RS 3340	Laboratory Practicum I	1
RS 3341	Laboratory Practicum II	1
RS 3342	Laboratory Practicum III	1
RS 3375	Pediatric Radiography	1
RS 3388	Radiation Protection	1
RS 3389	Applied Radiography I	4
RS 3390	Applied Radiography II	4
RS 4421	Computed Tomography	1
RS 4430	Radiologic Pathology	2
RS 4441	Advanced Radiographic Methods I	1
RS 4450	Alternate Imaging Modalities with Introduction to Evidence-Based Research	1
RS 4460	Introduction to Radiographic Quality Assurance	2
RS 4470	Advanced Radiographic Exposure	2
RS 4475	Registry Review	2
RS 4488	Applied Radiography III	5

RS 4489	Applied Radiography IV	6
RS 4490	Applied Radiography V	6
BIOL/HPHY 3307	Radiobiology	2
BIOL 4470	Cross-Sectional Anatomy	2
HPHY 3300	Medical Electronics	2
HPHY 3321	Radiologic Physics	2
Total Credits		106

¹ Students must be accepted into the Radiographic Sciences major to take these courses. All upper division RS courses require admittance to the program for enrollment.

Plan of Study (<http://coursecat.isu.edu/undergraduate/college-of-health-professions/radiographic-science/bs-rad-sci-plan-of-study>)

MAP (<http://coursecat.isu.edu/undergraduate/divisionhealth/radiographicscience/bs-radiographic-science-map>)

Certificate in Diagnostic Medical Sonography

Accreditation

Idaho State University is fully accredited by the Northwest Commission on College and Universities (NWCCU).

Overview

The Diagnostic Medical Sonography program is designed to facilitate the development of professional diagnostic medical sonographers who have acquired the technical skills and knowledge necessary to fulfill the needs required in the medical imaging setting. The sonographer plays a vital role in the health care team. Due to the rapid growth of technology in the health care setting, there is an increased demand for qualified personnel.

Philosophy

Idaho State University's Diagnostic Medical Sonography program was developed with the philosophy that didactic education and clinical experience, which includes "hands on," should happen together for continuity during learning. Therefore, during the entire program, the student learns in the laboratory setting and applies those acquired skills in the clinical setting. This happens on a weekly basis. Furthermore, in the classroom, students acquire the theoretical information necessary to perform as sonographers. The next step involves laboratory experiences where the opportunity to apply technological skills is acquired by using phantoms and simulations. Students then progress and perfect their skills by working with sonographers in a clinical environment. Additionally, several of the classes taught in the program focus on specialized areas of sonographic imaging, such as pediatrics, echocardiology, and perinatology and are taught by experts in their respective fields. This is atypical of most Diagnostic Medical Sonography programs and is a unique feature that sets the program apart from other programs. Our philosophy is that students who learn from experts become experts. When graduation approaches, students are ready to enter the profession confidently.

Mission

The mission of the Diagnostic Medical Sonography program is to provide students with both the academic and technical foundations to competently and safely perform sonography exams and procedures, to prepare qualified diagnostic medical sonographers who will ethically respond to the needs of patients with technical competence and compassion, and to assume a vital professional role as a medical team member.

Core Values

The Radiographic Science Program is committed to the following core values:

- Academics – promoting excellence in all academic endeavors.
- Knowledge – recognizing the significance of new knowledge in a profession that is predisposed to change while maintaining traditional values and emphasizing the needs of the patient.
- Dedication – helping meet the statewide and regional needs by providing access to quality education to prospective students.
- Community – helping meet the needs of the community in the health care setting by providing competent, qualified sonographers who are eligible upon graduation to sit for the national certification examination in diagnostic medical sonography sponsored by the American Registry for Diagnostic Medical Sonography (ARDMS).

Certificate Program

The Diagnostic Medical Sonography program at Idaho State University offers a certificate program.

The Diagnostic Medical Sonography program is an undergraduate, one-year curriculum. To qualify for the program, applicants must first be graduates of a radiography program and currently registered with the American Registry of Radiologic Technologists. During the first semester of the program student takes introductory sonography courses based in general imaging procedures and sonographic principles and instrumentation. During the next two semesters, the student studies and practices the clinical application of sonography in the university laboratory and at affiliated hospitals and clinics. The graduate is eligible to take the national examination for certification administered by the ARDMS.

The Diagnostic Medical Sonography program is designed to develop the technical skills and knowledge necessary for the student to satisfactorily function as a sonographer. Learning experiences enable the student to demonstrate competency in the technical aspect of the profession as well as human relations. The program further seeks to develop student interest in the professional societies and provides methodology to maintain competency upon graduation.

Upon completion of the program, the graduate will be able to work as a sonographer in a hospital, clinic, or private office and effectively perform his/her duties with patients in a responsible, ethical, and professional manner. Because of the rapid growth of the medical field, there is a need for well-trained sonographers.

Academic Standards

A grade of "C-" or better is required in all prerequisite and program specific courses. A student who fails to achieve a minimum of a "C-" grade in a course designated Radiographic Science (RS) will be dismissed from the program and

prohibited from taking any further courses with the RS designation until the course(s) in question has/have been completed with (a) minimum grade(s) of “C-.”

The student is required to reapply to the program, in writing, at least one (1) month prior to the first day of classes of the semester in which readmission is sought. Additional details regarding readmission can be found in the current Radiographic Science Student Handbook ([https://www.isu.edu/media/libraries/radiographic-science/pdf/Student-Handbook-2018-\(1\).pdf](https://www.isu.edu/media/libraries/radiographic-science/pdf/Student-Handbook-2018-(1).pdf)).

Admission Procedures

Admission to the Diagnostic Medical Sonography program is competitive. Students will be evaluated and points awarded by using grades in radiography program curriculum including anatomy and physiology (with labs), cross-sectional anatomy, patient care, and pathophysiology. Radiography program GPA will also be evaluated; a minimum grade point average of 3.0 is required. Additional points are awarded to ISU graduates and residents of the State of Idaho. Procedures for admission to the program include:

1. Complete procedures for admission to the University.
2. Complete and return the Diagnostic Medical Sonography Application Form and \$100 fee.
3. Completion of either an associates or bachelors degree from an accredited radiography program.
4. Submit official transcripts of all college and/or university courses completed, including advanced placement or dual-enrolled courses.

Application Deadline

The above admission procedures must be completed and received by the Diagnostic Medical Sonography Program by January 15th of the year the student is seeking admission. If the 15th falls on a weekend or holiday, the application must be received by the Friday preceding the deadline date. The sonography program begins in the summer semester.

Diagnostic Medical Sonography Certificate Program

A student may be awarded a Certificate in Diagnostic Medical Sonography by fulfilling the following requirements:

Professional Curriculum

Code	Title	Credits
DMS 4400	Introduction to Sonography	1
DMS 4401	Abdominal Sonography I	2
DMS 4402	Abdominal Sonography II	1
DMS 4404	OB/GYN Sonography I	1
DMS 4405	OB/GYN Sonography II	1
DMS 4406	OB/GYN Sonography III	1
DMS 4407	Sonography Physics and Instrumentation I	1
DMS 4408	Sonography Physics and Instrumentation II	1
DMS 4409	Sonography Physics and Instrumentation III	1
DMS 4410	Fundamentals of Sonography Lab I	1
DMS 4411	Fundamentals of Sonography Lab II	1
DMS 4412	Fundamentals of Sonography Lab III	1

DMS 4413	Sonography Case Studies I	1
DMS 4414	Sonography Case Studies II	1
DMS 4415	Sonography Case Studies III	1
DMS 4416	Vascular Sonography	2
DMS 4417	Superficial Structures in Sonography	1
DMS 4418	Breast Sonography	1
DMS 4419	Sonography Specialty Areas	1
DMS 4451	Research Principles in Sonography	2
DMS 4476	Sonography ARDMS Registry Review	1
DMS 4491	Applied Sonography I	6
DMS 4492	Applied Sonography II	8
DMS 4493	Applied Sonography III	8
Total Credits		46

MAP (<http://coursecat.isu.edu/undergraduate/divisionhealth/radiographicsscience/diagnostic-medical-sonography/map>)

College of Nursing

Program Description	Type	Degree
Nursing, B.S. - Traditional (p. 320)	Degree	B.S.
Nursing, B.S. - Accelerated (p. 317)	Degree	B.S.
Nursing, B.S. - BS completion (p. 318)	Degree	B.S.

Baccalaureate Program

The undergraduate nursing program at Idaho State University is a four-year professional program leading to the degree of Bachelor of Science with a major in nursing. All of the College's baccalaureate programs are fully accredited nationally by the Commission on Collegiate Nursing Education and approved by the Idaho State Board of Nursing. The aim of the College of Nursing is to prepare graduates to function as professional nurses in a variety of health care settings. Students are provided an opportunity to learn and to practice nursing in special learning laboratories and in a variety of settings where people need nursing care. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The undergraduate program serves as a foundation for graduate study. Applications and other materials for the College of Nursing are available on the Idaho State University College of Nursing website at <http://www.isu.edu/nursing>.

Traditional Baccalaureate Program

The Traditional Baccalaureate Degree is well-suited to the student seeking a first degree in nursing. The Traditional program provides learning opportunities for undergraduate students in a variety of classroom and clinical settings prepare students to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN) to secure licensure as a professional registered nurse. Earning a Bachelor of Science degree (BS) in nursing from Idaho State University requires students to earn 120 credits that are completed over a minimum of four years. Students take general education and nursing prerequisite courses their first two years at the University.

Forty (40) students are admitted in the **spring cohort** and 40 students are admitted in the **fall cohort** every year. This dual application process assures students will have access to smaller class sizes and greater opportunity to participate in clinical experiences. Please see the College of Nursing website at <http://www.isu.edu/nursing/programs/traditional-bachelor-of-science-in-nursing/> for details.

Accelerated Program

This is an accelerated program appropriate for those who have already obtained a baccalaureate degree in a field other than nursing. Students complete required courses leading to a Bachelor of Science in Nursing and upon graduation are eligible to take the RN Licensure Exam (NCLEX-RN).

Students apply for admission to the Accelerated program beginning in late fall. Those students admitted will be notified in early spring and begin the program in the summer semester. Students complete the accelerated program in three (3) consecutive semesters. For all details regarding the Accelerated program, see <http://www.isu.edu/nursing/programs/accelerated-bachelor-of-science-in-nursing/>.

Nursing Faculty

BS Completion Program

This is a program appropriate for individuals in an associate degree program or for individuals who already have completed their registered nurse licensure program of study and who wish complete a Bachelor of Science in Nursing.

When admitted to the BS Completion Program, the student must complete the nursing program courses in two years. Students who are not actively working towards completion of course requirements for the BS Completion Program for a period of two years will be moved to inactive status.

Graduation

Each senior student must contact the graduation clerk in the semester preceding graduation. The student's academic record will be formally reviewed for completion of specified course work and university requirements. The College of Nursing formally reviews the transcripts of senior students for completion of departmental requirements. Students may be dismissed from the nursing program for academic reasons that include but are not limited to:

- 1) Students who receive a course grade below a "C" (2.0) and/or
- 2) Students with a cumulative grade point average below a "C" (2.0).

Students will not be eligible to sit for the NCLEX-RN examination if they do not meet all of the Idaho State University College of Nursing requirements for graduation.

Expenses

Students in the College of Nursing will incur certain expenses, such as the cost of transportation for learning experiences and clinical, clinical apparel, and lab fees in addition to the student expenses listed by the University. A professional fee of \$1000 to \$1100 is charged each semester while enrolled in the BS with a major in Nursing program. For the Traditional and Accelerated programs the professional fee is charged regardless of the number of courses or credit hours a student takes in a semester. A part-time professional fee option is available for students in the BS Completion program.

Financial Assistance

In addition to the financial aid available to all University students, special awards, scholarships, and funds may be available to qualified nursing students. For information about financial assistance, contact the Financial Aid and Scholarship Office (<http://www.isu.edu/finaid/index.shtml>).

Graduate Program

The College of Nursing offers nursing graduate programs including Master of Science, PhD, and DNP. See the Graduate Catalog (<http://coursecat.isu.edu/graduate/healthscience/nursing/>) for information.

Nursing Faculty (p. 316)

Nursing Courses (p. 612)

Interim Dean

Neill

Associate Dean

(vacant)

Clinical Assistant Professor and Director for Undergraduate Studies

Kubiak

Professor and Director for Nursing Research

Nies

Clinical Assistant Professors (Undergraduate)

Belliston

Christoffersen

Cosens

Damstrom

Esplin

Hackwith (Coordinator Accelerated Nursing Program)

Hensley

Hulen

Morris

Omotowa

Sabel

Associate Professor (Graduate)

Arvidson

Clinical Assistant Professor (Graduate)

Baron

Assistant Professors (Graduate)

Clarkson

Crownhart

Mladenka (Coordinator DNP Program)

Tavernier (Coordinator PhD and Master's of Nursing Education)

Weaver

Simulation Lab Coordinator

Smout

Emeritae

Ashton

Jacobson

McLaughlin

McRoberts

Renn

Sato

B.S. Nursing - Accelerated

Admission

Please see the College of Nursing website (www.isu.edu/nursing/) for all the details about the Traditional, Accelerated, and BS Completion programs for RNs.

Students interested in the Accelerated program must have completed a Bachelor's degree in an area other than nursing prior to application. Students apply in the spring semester for admission to the nursing program in the summer semester. All application materials, including official transcripts of all courses completed at universities other than Idaho State University, and a \$50 non-refundable application fee, must be submitted to the College of Nursing by **early spring** to ensure consideration for summer enrollment. Applicants will be notified of the results of the review process by mid spring.

Prerequisite Courses

Prospective nursing majors must have a minimum combined GPA of 3.0 in the Set A prerequisite courses listed below to be eligible to apply to the nursing program. Applicants must also complete the Set A and Set B prerequisite courses listed below, or equivalents, with a grade of "C" (2.0) or better. The required minimum combined 3.0 GPA must be maintained following completion of Set B courses. Failure to do so will result in revocation of program admission. Set A prerequisite courses must be completed at the time the application is submitted. Set B prerequisite courses must be completed before starting in the nursing program in Summer, but not necessarily before the application is submitted. **Every prospective student must meet with the Nursing advisor to be eligible to apply to the program.**

A. Set A Prerequisite Courses for Accelerated Program

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
CHEM 1101 or CHEM 1111 & 1111L	Introduction to Chemistry General Chemistry I and General Chemistry I Lab	3-5
PSYC 1101	Introduction to Psychology	3
PSYC 2225	Child Development	3
Cultural Diversity Course - See General Education Requirements for Objective 9 in the Catalog for guidance		3

B. Set B Prerequisite Courses for Accelerated Program

Code	Title	Credits
BIOL 3305	Introduction to Pathobiology	3
CHEM 1102	Essentials of Organic and Biochemistry	3

CHEM 1103	Essentials of Organic and Biochemistry Laboratory	1
NTD 3340	Nutrition for Health Professionals	3
LLIB 1115	Introduction to Information Research	3
PHIL 2230	Medical Ethics	3
MATH 1153	Statistical Reasoning	3
PPRA 3315	Pharmacology for Nursing	4

Application Process

Accelerated Program Applicants will be required to submit an application that includes documentation of completion of:

- Set A prerequisite courses (completed)
- Set B prerequisite courses (completed or in progress)
- Documentation of a previous baccalaureate degree in a field other than nursing
- Unofficial transcripts of courses taken at other colleges or universities
- Any approved petitions completed for the College of Nursing
- Test of Essential Academic Skills (TEAS)
- Applicants to the Accelerated program may be contacted for a personal interview

Please see the College of Nursing website (<https://www.isu.edu/nursing/>) for details on the application process.

Selection Process

Applicant ranking and selection is based upon various factors, including but not limited to GPA in past coursework.

For Accelerated Program Applicants:

- GPA of Set A prerequisite courses
- Score of the Test of Essential Academic Skills (TEAS).
- Personal interview may be required

Alternate Status

An alternate admission list is implemented when more students meeting the admission criteria have applied than can be accommodated in the space available. If space becomes available to accommodate additional eligible students, the alternate list will be activated. Alternate status is recognized only for the semester of application.

Reapplication

Students who are not admitted to the semester for which they initially apply may reapply in the next application cycle and will be reviewed for admission with the new group of applicants.

All students reapplying to the Baccalaureate program must meet the current admission criteria such as minimum GPA for nursing prerequisites, completion of prerequisite courses, and any other current criteria in order to be eligible for admission. Re-applicants will be subject to the same scrutiny and consideration as

an initial applicant. Students who are reapplying must follow all steps detailed in the College of Nursing website (<http://www.isu.edu/nursing/>).

Additional Considerations for Nursing Programs

- a) All students must first be admitted to the University. Criteria for admission may be obtained from the College of Nursing website (<http://www.isu.edu/nursing/>).
- b) Students may request *through the petition process* that prerequisite and requisite courses taken at another institution be accepted for comparable courses at Idaho State University. University credit and graduation requirements must be met.

University Courses Required for Accelerated Students

Code	Title	Credits
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3305	Introduction to Pathobiology	3
NTD 3340	Nutrition for Health Professionals	3
PHIL 2230	Medical Ethics	3
PPRA 3315	Pharmacology for Nursing	4
PSYC 2225	Child Development	3

Required Nursing Courses for Accelerated Students

Code	Title	Credits
NURS 3105	Professional Nursing	3
NURS 3110 & 3110L	Fundamentals of Nursing and Fundamentals of Nursing Lab	4

B.S. Nursing - R.N. Completion

Admission

Students interested in the BS Completion program must be in the process of completing, or have completed, an associate degree in Nursing and be preparing to take the National Council Licensure Exam Registered Nurse Exam or already be a Registered Nurse. Students apply for admission to the program in any semester; those students admitted to the program will then begin the program in the following semester. Please see the College of Nursing website (<https://www.isu.edu/nursing/>) for details about the BS Completion programs for RNs.

For BS Completion Program Applicants:

Prospective nursing majors must have a minimum combined GPA of 3.0 in at least 20 of the 38 credits of prerequisite courses listed below combined with their previous nursing-specific courses to be eligible to apply to the nursing program. Applicants must also complete the prerequisite courses listed below,

NURS 3120 & 3120L	Health Assessment and Health Assessment Lab	3
NURS 3130 & 3130C	Adult Health Nursing I and Adult Health Nursing I Clinical	7
NURS 3150C	Health Assessment/Fundamentals Clinical	2
NURS 3330	Evidence-Based Nursing Practice	3
NURS 4130	Adult Health Nursing II	4
NURS 4140	Child Health Nursing	3
NURS 4150	Women and Childbearing Family Nursing	2
NURS 4150C	Women and Childbearing Family Nursing Clinical	2
NURS 4160	Mental Health Nursing	3
NURS 4160C	Mental Health Nursing Clinical	2
NURS 4200	Population Health Nursing	3
NURS 4200C	Population Health Nursing Clinical	2
NURS 4220	Leadership and Management in Nursing	3
NURS 4420	Professional Nursing Capstone	4
NURS 4445	Professional Nursing Synthesis	2

Progression requirements:

- Students apply to the Accelerated BSN-RN program by spring semester for summer semester start.
- Students must be accepted into the nursing program to complete the 3 semesters for the Accelerated program.
- Students must complete the nursing courses in the prescribed program sequence.
- Students must complete all university courses required for the Major in Nursing and all Nursing courses with a grade of "C" (2.0) or better.

or equivalents, with a grade of "C" (2.0) or better. The required minimum combined 3.0 GPA must be maintained following completion of remaining prerequisite courses. Failure to do so will result in revocation of program admission. **Every prospective student must meet with the Nursing advisor to be eligible to apply to the program.**

Prerequisite Courses for BS Completion Program

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4

BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3305	Introduction to Pathobiology	3
PSYC 1101	Introduction to Psychology	3
PSYC 2225	Child Development (preferred)	3
or		
a life span development course approved by the College of Nursing		
MATH 1153	Statistical Reasoning	3
NTD 2239	Nutrition	3
or		
NTD 3340	Nutrition for Health Professionals (preferred)	
PHIL 2230	Medical Ethics (preferred)	3
or		
a health-related ethics course approved by the College of Nursing		
PPRA 3315	Pharmacology for Nursing	4

Application Process

BS Completion Program Applicants should make application to the College of Nursing when they have completed their associate degree program or are in their last semester of their associate degree program. Students who are interested in the BS Completion Program should contact the College of Nursing Academic Advisor as soon as possible when their decision is made. The Academic Advisor will assist the student with developing a plan of study to complete prerequisite courses, petitions, and ensure transcripts are provided. A unique plan of study will be developed for each BS Completion Student. NURS 4220 Leadership and Management in Nursing, NURS 4400 Experiential Learning Equivalency for BS Completion Students, and NURS 4410 Role of the BS Prepared Nurse in Current Society cannot be completed until the student has successfully passed the nursing licensure exam and received their registered nurse licensure.

Student will be required to submit an application that includes documentation of completion of:

- Prerequisite courses, completed and in progress;
- Documentation of a previous associate degree in Nursing (or degree in process);
- Unofficial transcripts of courses taken at other colleges or universities; and
- Any approved petitions completed for the College of Nursing.

Alternate Status

An alternate admission list is implemented when more students meeting the admission criteria have applied than can be accommodated in the space available. If space becomes available to accommodate additional eligible students, the alternate list will be activated. Alternate status is recognized only for the semester of application.

Reapplication

Students who are not admitted to the semester for which they initially apply may reapply in the next application cycle and will be reviewed for admission with the new group of applicants.

All students reapplying to the Baccalaureate program must meet the current admission criteria such as minimum GPA for nursing prerequisites, completion of prerequisite courses, and any other current criteria in order to be eligible for admission. Re-applicants will be subject to the same scrutiny and consideration as an initial applicant. Students who are reapplying must follow all steps detailed in the College of Nursing website (<http://www.isu.edu/nursing/>).

Additional Considerations for Nursing Programs

a) All students must first be admitted to the University. Criteria for admission may be obtained from the College of Nursing website (<http://www.isu.edu/nursing/>).

b) Students may request *through the petition process* that prerequisite and requisite courses taken at another institution be accepted for comparable courses at Idaho State University. University credit and graduation requirements must be met.

University General Requirements

Specific Goal Courses Required for Nursing

Students pursuing the Bachelor of Science degree must complete 8 of the 9 General Education Objectives (minimum 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog.) The following courses are program requirements that may also be chosen to satisfy General Education Objectives:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab ¹	4
CHEM 1101	Introduction to Chemistry ¹	3
CHEM 1102 & CHEM 1103	Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory	4
LLIB 1115	Introduction to Information Research	3
MATH 1153	Statistical Reasoning (MATH 1108 prerequisite)	3
PSYC 1101	Introduction to Psychology ¹	3
Cultural Diversity Course - See General Education Requirements for Objective 9 in the Catalog (Satisfies General Education Objective 9)		3

¹ See University General Education Requirements for Objectives not met by major requirements. Students who have completed advanced placement tests for any of the following courses – CHEM 1101, BIOL 1101, or PSYC 1101, may have these requirements waived. Please review the CLEP and Advanced Placement credit information located at: <http://isu.edu/registrar/transfer-credit/credit-by-exam/>.

Required Nursing Courses for BS Completion Students

Code	Title	Credits
NURS 3120	Health Assessment *	2
NURS 3120L	Health Assessment Lab *	1
NURS 3330	Evidence-Based Nursing Practice	3

or DHS 4426	Evidence Based Research in Health Sciences	
NURS 4180	Foundations of Health Informatics for Nurses	2
NURS 4200 & 4200C	Population Health Nursing and Population Health Nursing Clinical	5
NURS 4220	Leadership and Management in Nursing	3
NURS 4400	Experiential Learning Equivalency for BS Completion Students	1-16
NURS 4410	Role of the BS Prepared Nurse in Current Society	2

* Courses with an asterisk (*) allow the student to test out by examination or documentation of clinical skills. Examination methods will be determined between student and faculty on an individual basis.

Progression requirements:

- Students must be admitted to the BS Completion program to finish their nursing courses.
- An individualized plan of study will be developed for each BS Completion student.
- NURS 4220, NURS 4400, and NURS 4410 cannot be completed until the student has successfully passed the nursing licensure exam and received their registered nurse license.
- All students must meet University degree requirements including General Education, upper-division and resident credit.

B.S. Nursing - Traditional

Admission

For the traditional program, students are admitted in both the fall and spring semesters.

SPRING COHORT: The **spring cohort** consists of students who make application in the fall and are admitted in the spring. The students complete their application in the fall of their junior year and begin nursing classes in the spring semester of their junior year. The students who are admitted in the **spring cohort** will complete four consecutive semesters (a summer session is required).

For the **spring cohort** admission cycle, all application materials, including official transcripts of all courses completed at universities other than Idaho State University, and a \$50 non-refundable application fee, must be submitted to the College of Nursing in early October. The **spring cohort** will be notified if they have been accepted to the program by mid October.

FALL COHORT: The **fall cohort** consists of students who make application in the spring and are admitted in the fall. The students complete their application in the spring of their sophomore year and begin nursing classes in the fall semester of their junior year. The students who are admitted in the **fall cohort** will complete the program in four semesters (a summer session is not required).

For the **fall cohort** admission cycle, all application materials, including official transcripts of all courses completed at universities other than Idaho State University, and a \$50 non-refundable application fee, must be submitted to the College of Nursing in mid March. The **fall cohort** will be notified if they have been accepted to the program by mid April.

Prerequisite Courses

For Traditional Program Applicants:

Prospective nursing majors must have a minimum combined GPA of 3.0 in the Set A prerequisite courses listed below to be eligible to apply to the nursing program. Applicants must also complete the Set A and Set B prerequisite courses listed below, or equivalents, with a grade of "C" (2.0) or better. The required minimum combined 3.0 GPA must be maintained following completion of Set B courses. Failure to do so will result in revocation of program admission. Set A prerequisite courses must be completed at the time the application is submitted. Set B prerequisite courses and all university objective courses must be completed before starting the nursing program, but not necessarily before the application is submitted. **Every prospective student must meet with the Nursing advisor to be eligible to apply to the program.**

A. Set A Prerequisite Courses for Traditional Program

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
CHEM 1101 or CHEM 1111 & 1111L	Introduction to Chemistry (Partially satisfies General Education Objective 5) and General Chemistry I and General Chemistry I Lab	3-5
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
PSYC 2225	Child Development	3
Cultural Diversity Course - See General Education Requirements for Objective 9 in the Catalog (Satisfies General Education Objective 9)		3

B. Set B Prerequisite Courses for Traditional Program

Code	Title	Credits
BIOL 3305	Introduction to Pathobiology	3
CHEM 1102	Essentials of Organic and Biochemistry (Partially satisfies General Education Objective 5)	3
CHEM 1103	Essentials of Organic and Biochemistry Laboratory (Partially satisfies General Education Objective 5)	1
NTD 3340	Nutrition for Health Professionals	3
LLIB 1115	Introduction to Information Research (Satisfies General Education Objective 8)	3
PHIL 2230	Medical Ethics	3

MATH 1153 Statistical Reasoning (Satisfies General Education Objective 3) 3

Additional ISU General Education Objective courses ¹

¹ All students must complete a minimum of 36 credits from the nine Core Objective areas as outlined in the General Education Requirements (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>) in the Academic Information section of this catalog.

Application Process

Traditional Program Applicants will be required to submit an application that includes documentation of completion of:

- Set A prerequisite courses (completed)
- Set B prerequisite courses (completed or in progress)
- Unofficial transcripts of courses taken at other colleges or universities
- Any approved petitions completed for the College of Nursing
- Test of Essential Academic Skills (TEAS)

Please see the College of Nursing website (<https://www.isu.edu/nursing>) for details on the application process.

Selection Process

Applicant ranking and selection is based upon various factors, including but not limited to GPA in past coursework.

For Traditional Program Applicants:

- GPA of Set A prerequisite courses
- Score of the Test of Essential Academic Skills (TEAS).

Alternate Status

An alternate admission list is implemented when more students meeting the admission criteria have applied than can be accommodated in the space available. If space becomes available to accommodate additional eligible students, the alternate list will be activated. Alternate status is recognized only for the semester of application.

Reapplication

Students who are not admitted to the semester for which they initially apply may reapply in the next application cycle and will be reviewed for admission with the new group of applicants.

All students reapplying to the Baccalaureate program must meet the current admission criteria such as minimum GPA for nursing prerequisites, completion of prerequisite courses, and any other current criteria in order to be eligible for admission. Re-applicants will be subject to the same scrutiny and consideration as an initial applicant. Students who are reapplying must follow all steps detailed in the College of Nursing website (<http://www.isu.edu/nursing/>).

Additional Considerations for Nursing Programs

- All students must first be admitted to the University. Criteria for admission may be obtained from the College of Nursing website (<http://www.isu.edu/nursing/>).
- Students may request *through the petition process* that prerequisite and requisite courses taken at another institution be accepted for comparable

courses at Idaho State University. University credit and graduation requirements must be met.

University General Requirements

Specific Goal Courses Required for Nursing

Students pursuing the Bachelor of Science degree must complete 8 of the 9 General Education Objectives (minimum 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog.) The following courses are program requirements that may also be chosen to satisfy General Education Objectives:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab ¹	4
CHEM 1101	Introduction to Chemistry ¹	3
CHEM 1102 & CHEM 1103	Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory	4
LLIB 1115	Introduction to Information Research	3
MATH 1153	Statistical Reasoning (MATH 1108 prerequisite)	3
PSYC 1101	Introduction to Psychology ¹	3
	Cultural Diversity Course - See General Education Requirements for Objective 9 in the Catalog (Satisfies General Education Objective 9)	3

¹ See University General Education Requirements for Objectives not met by major requirements. Students who have completed advanced placement tests for any of the following courses – CHEM 1101, BIOL 1101, or PSYC 1101, may have these requirements waived. Please review the CLEP and Advanced Placement credit information located at: <http://isu.edu/registrar/transfer-credit/credit-by-exam/>.

University Courses Required for Traditional Students

Code	Title	Credits
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3305	Introduction to Pathobiology	3
NTD 3340	Nutrition for Health Professionals	3
PHIL 2230	Medical Ethics	3
PPRA 3315	Pharmacology for Nursing	4
PSYC 2225	Child Development	3
Elective		2

Required Nursing Courses for Traditional Students

Code	Title	Credits
DHS 4426	Evidence Based Research in Health Sciences	3
or NURS 3330	Evidence-Based Nursing Practice	
NURS 3100	Professional Nursing	2
NURS 3110 & 3110L	Fundamentals of Nursing and Fundamentals of Nursing Lab	4
NURS 3120 & 3120L	Health Assessment and Health Assessment Lab	3
NURS 3130	Adult Health Nursing I	3
NURS 3130C	Adult Health Nursing I Clinical	4
NURS 3150C	Health Assessment/Fundamentals Clinical	2
NURS 4130	Adult Health Nursing II	4
NURS 4140	Child Health Nursing	3
NURS 4150	Women and Childbearing Family Nursing	2
NURS 4150C	Women and Childbearing Family Nursing Clinical	2
NURS 4160	Mental Health Nursing	3
NURS 4160C	Mental Health Nursing Clinical	2
NURS 4180	Foundations of Health Informatics for Nurses	2
NURS 4200	Population Health Nursing	3
NURS 4200C	Population Health Nursing Clinical	2
NURS 4220	Leadership and Management in Nursing	3
NURS 4420	Professional Nursing Capstone	4
NURS 4440	Professional Nursing Synthesis	1

Progression requirements:

- Students must be accepted into the nursing program to complete the 4 semesters of nursing courses for the Traditional program.
- Students must complete the nursing courses in the prescribed program sequence.
- Students must complete all university courses required for the Major in Nursing and all Nursing courses with a grade of "C" (2.0) or better.

College of Pharmacy

Program Description	Type	Degree
Pharmacy, Pharm.D (p. 327)	Degree	Pharm.D.
Joint Doctor of Pharmacy and Master of Business Administration (p. 330)	Degree	Pharm.D., M.B.A.
Pharmaceutical Sciences, Minor (p. 330)	Minor	

College of Pharmacy

The Doctor of Pharmacy degree focuses on improving clinical outcomes and improving quality of life. The mission of the College of Pharmacy is to develop caring and collaborative pharmacists and scholars who improve health outcomes through transformative research and patient-centered care.

Accreditation

The Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (<https://www.acpe-accredit.org>) (ACPE).

Professional Standards

Students enrolled in the programs of the College of Pharmacy are expected to endorse professional standards by subscribing to the Oath of a Pharmacist. Students are also expected to abide by the American Pharmacists Association Code of Ethics for Pharmacists.

Progression Requirements

Students accepted into the professional PharmD program of the College of Pharmacy will be permitted to progress to the next semester in the professional curriculum only when all of the required courses and assessment activities have been successfully completed. Successful completion is defined to mean that a grade point average of C (2.0) or better must be maintained in required professional courses, as well as required courses outside the College. Any student receiving a grade of D in a required or elective course must successfully remediate that course per the College's Academic Remediation Plan. Students will be allowed to remediate a maximum of 2 courses per academic year, and 3 courses total during the program.

A student who intends to take a required Idaho State University pharmacy course at another institution must receive written permission from the Associate Dean for Academic Affairs at the ISU College of Pharmacy. This permission must be received prior to enrolling in the course.

Experiential Curriculum

Students must complete a specified number of hours of Introductory Pharmacy Practice Experiences (IPPE), Advanced Pharmacy Practice Experiences (APPE), and Inter-professional Education (IPE). IPPE must involve practice experiences in community and institutional pharmacy settings as well as supervised direct patient care responsibilities. Forty-two (42) weeks of the fourth year of the Doctor of Pharmacy curriculum are spent in Advanced Pharmacy Practice Experiences (APPE). This requirement assures that the student becomes competent in applying information and concepts learned in the classroom to the practice of pharmacy. Practice sites are assigned by the College. Decentralization of off-campus programs is a commitment the College has made to provide students with the best possible educational experiences. Students should clearly understand that they may be required to complete at least part of their last year at a remote site. Since patient care is a continuous activity, some off-campus experiences are conducted outside the traditional work day (shift work). Personal

expenses including travel, food, and lodging while completing off-campus experiences are the student's responsibility.

Pharmacy Extern Registration

All students are required to be licensed externs during all phases of the clinical program. A background check is required prior to extern registration. An additional extern registration is required in other states in which a student does any portion of his or her clinical program (except for Public Health Service sites).

Graduation Requirements

All students graduating from Idaho State University with a Doctor of Pharmacy degree are expected to complete the General Education Requirements (p. 57) as described for the Bachelor of Science degree.

To be eligible for graduation in pharmacy, a student must have earned an average GPA of 2.0 or better on all credits applied toward the minimum graduation requirements of the curriculum. He or she also must have earned an average GPA of 2.0 or better for all required pharmacy courses applied toward graduation. A minimum of 227 semester credits is required for graduation with the Doctor of Pharmacy degree.

Students are responsible for meeting degree requirements in proper sequence. Frequent consultation between student and faculty advisor is encouraged.

Licensure

For graduation with the Doctor of Pharmacy degree, students are required to complete a program of 1,740 hours of structured practical experiences in pharmacy practice environments administered by the College. Successful completion of the clinical program/externship required for the Doctor of Pharmacy degree will satisfy all of the practical experience requirements for licensure in Idaho and Alaska.

Following completion of all requirements, candidates must pass the North American Pharmacist Licensure Examination (NAPLEX) to obtain licensure to practice pharmacy in Idaho. If a student plans to practice pharmacy in states other than Idaho, he or she must meet the specific licensing requirements of each state (e.g., Multistate Pharmacy Jurisprudence Examination (MPJE)).

Advanced Pharmacy Practice Experience (APPE) Descriptions

Ambulatory Care - Integration of basic pharmacy-related concepts to patient care as a member of an interdisciplinary health care team in the ambulatory care setting.

Advanced Community - Emphasizes the distributive, communicative and managerial aspects of community pharmacy practice. For this experience, students are assigned to selected community pharmacy preceptors.

Drug Information - Structured experience in the practical aspects of the provision of drug information, critical analysis of the medical literature and medical writing.

Geriatrics - Application of pharmaceutical knowledge and skills in the care of geriatric patients and long-term care.

Advanced Institutional - Emphasizes the distributive, communicative and managerial aspects of hospital pharmacy practice. For this experience, students are assigned to selected hospital pharmacy preceptors.

Medicine - This experience is designed to integrate the knowledge from previous didactic courses in pharmacology, clinical chemistry and pathophysiology for application encountered in general medicine practice.

Mental Health - Application of pharmacotherapeutics to a general psychiatry practice.

Nuclear Pharmacy - Provides practical experience in the compounding and clinical use of radiopharmaceuticals.

Pediatrics - Practical experience in monitoring drug therapy for institutionalized and ambulatory pediatric and neonatal patients.

Research - Provides experience in the conduct of research in the pharmaceutical sciences.

College of Pharmacy Faculty (p. 324)

PSCI Courses (p. 509)

PPRA Courses (p. 621)

PHAR Courses (p. 619)

College of Pharmacy Faculty

Dean

Owens, Christopher T., Interim Dean, College of Pharmacy, Associate Professor, Pharmacy Practice and Administrative Sciences. B.A. 1998, Utah State University; Pharm.D. 2002, Idaho State University. (2003)

Associate Dean for Academic Affairs

Adams, Jennifer L., Associate Dean for Academic Affairs, College of Pharmacy; Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D., 2004, Idaho State University; Ed.D., 2014, The George Washington University. (2017)

Associate Dean for Student Affairs

Buffat, Brooke, Associate Dean for Student Affairs, College of Pharmacy; Director of Continuing Education, College of Pharmacy; Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2004, Idaho State University. (2006)

Assistant Dean for Alaska Programs

Wadsworth, Thomas G., Assistant Dean for Alaska Programs, College of Pharmacy; Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2002, Idaho State University. (2007)

Department of Pharmacy Practice and Administrative Sciences

Chair and Professor

Oliphant, Catherine M., Interim Chair and Professor, Pharmacy Practice and Administrative Sciences. B.S. 1987, Drake University; Pharm.D. 1993, University of Michigan. (2003)

Professors

Cady, Paul S., Professor, Pharmacy Practice and Administrative Sciences. B.S. 1980, M.S. 1986, Ph.D. 1988, University of Arizona. (1990)

Force, Rex W., Vice President for Health Sciences; Director, Pocatello Family Medicine Clinical Research Center; Professor, Pharmacy Practice and Administrative Sciences. B.S. 1988, Oregon State University; Pharm.D. 1991, University of Texas Health Science Center at San Antonio. (1993)

Madaras-Kelly, Karl, Professor, Pharmacy Practice and Administrative Sciences. B.S. 1991, Pharm.D. 1992, University of Minnesota. (1994)

Mason, Barbara J., Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 1982, University of Nebraska. (1987)

Rhodes, Richard S., Professor, Pharmacy Practice and Administrative Sciences. B.S. 1972, Mercer University; B.S. 1978, Florida A&M University; Pharm.D. 1983, Mercer University. (1987)

Associate Professors

Cleveland, Kevin W., Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2002, Idaho State University. (2004)

Liday, Cara, Associate Professor, Pharmacy Practice and Administrative - Sciences. Pharm.D. 1996, Idaho State University. (1998)

Owens, Christopher T., Interim Dean, College of Pharmacy; Associate Professor, Pharmacy Practice and Administrative Sciences. B.A. 1998, Utah State University; Pharm.D. 2002, Idaho State University. (2003)

Robinson, Renee, Associate Professor, Pharmacy Practice and Administrative Sciences. B.S. 1997, Pharm.D. 1998, University of Georgia; MPH 2002, Ohio State University, MSPHarm, University of Florida.

Clinical Associate Professors

Adams, Jennifer L. Associate Dean for Academic Affairs, College of Pharmacy; Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D., 2004, Idaho State University; Ed.D., 2014, The George Washington University. (2017)

Buffat, Brooke, Associate Dean for Student Affairs, College of Pharmacy; Director, Continuing Education, College of Pharmacy; Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2004, Idaho State University. (2006)

Eroschenko, Kathy S., Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2003, Idaho State University. (2007)

Hefflinger, Roger G., Clinical Associate Professor, Pharmacy Practice and - Administrative Sciences. Pharm.D. 1986, University of Nebraska. (1987)

Pettinger, Tracy K., Clinical Associate Professor, Pharmacy Practice and Administrative Sciences; Pharm.D. 2003, Idaho State University. (2005)

Wadsworth, Thomas G., Assistant Dean for Alaska Programs, College of Pharmacy; Clinical Associate Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2002, Idaho State University. (2007)

Assistant Professors

Boyle, Julia, Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2014, Idaho State University. (2016)

Casperson, Kerry L., Assistant Professor, Pharmacy Practice and Administrative Sciences. B.S. 1980, M.B.A. 1984, Idaho State University; M.S. 1989, University of Minnesota; Ph.D. 1996, Idaho State University. (2003)

Holmes, John T., Assistant Professor, Pharmacy Practice and Administrative Sciences and Family Medicine. Pharm.D. 2007, Idaho State University. (2009)

Hoover, Rebecca, Director, Idaho Drug Information Center; Assistant Professor, Pharmacy Practice and Administrative Sciences. B.S. and B.A. 2007, University of Idaho; Pharm.D. 2012, Idaho State University; MBA 2013, University of Nebraska Lincoln. (2013)

Nguyen, Elaine, Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D., MPH, University of Iowa, 2013. (2017)

Clinical Assistant Professors

Biddle, Michael A., Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. B.A. 2005, Marshall University; Pharm.D. 2009, West Virginia University. (2016)

Carr, Glenda, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. B.S. 1999; Pharm.D. 2000, University of Montana. (2002)

Ferro, Jordan, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2016, Idaho State University. (2018)

Ivie, Michelle Lee, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2006, Idaho State University. (2007)

McKay, Kasidy, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. A.S. 2009, Weber State University; Pharm.D. 2013, Midwestern University. (2015)

O'Connor, Shanna, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. B.A., Saint Mary's College Notre Dame, 2004; Pharm.D. University of Wyoming, 2009. (2017)

Paul, Amy, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2015, Regis University. (2018)

Powell, Brecon C., Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2014, Idaho State University. (2015)

Ratliff, Angharad, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. Pharm.D. 2014, Idaho State University. (2017)

Assistant Lecturer

Brower, Brady, Assistant Lecturer, Pharmacy Practice and Administrative Sciences. Pharm.D. 2007, Idaho State University. (2019)

Burde, Anushka J., Assistant Lecturer, Pharmacy Practice and Administrative Sciences. B.S. Chemistry 2010, B.S. Biochemistry 2011, Pharm.D. 2015, Idaho State University. (2015)

Emeriti

Adamcik, Barbara A., Professor, Pharmacy Practice and Administrative Sciences. 1985-2013

Cashmore, Catherine A., Associate Dean, College of Pharmacy; Associate Professor, Pharmacy Practice and Administrative Sciences. 1994-2017

Culbertson, Vaughn L., Professor, Pharmacy Practice and Administrative Sciences. 1989-2018

Eramouspe, John, Professor, Pharmacy Practice and Administrative Services. 1993-2018

Galizia, Virginia, Associate Dean, College of Pharmacy; Professor, Pharmacy Practice and Administrative Sciences. 1996-2002

Gould, Frederica (Teddie), Associate Professor, Pharmacy Practice and Administrative Sciences. 1981-2017

Hurley, Stephen C., Professor, Pharmacy Practice and Administrative Sciences. 1976-2006

Jue, Sandra G., Clinical Professor, Pharmacy Practice and Administrative Sciences. 1973-2012

Lott, Rex S., Professor, Pharmacy Practice and Administrative Sciences. 1997-2015

Sharp, William T., Professor, Pharmacy Practice and Administrative Sciences. 1975-2000

Department of Biomedical and Pharmaceutical Sciences

Chair and Professor

Schulte, Marvin K., Department Chair and Professor, Biomedical and Pharmaceutical Science. B.S. 1982, St. John's University; M.S. 1989, University of Minnesota; Ph.D. 1992, University of Minnesota. (2018)

Professors

Lai, James Chung Kang, Professor, Biomedical and Pharmaceutical Sciences. B.S. 1970, University College, Cardiff, Wales; M.S. 1971, Birmingham University, U.K.; Ph.D. 1975, London University. (1991)

Assistant Professors

Awale, Prabha, Assistant Professor, Biomedical and Pharmaceutical Sciences. B. Pharm. 2000, Rajiv Gandhi University of Health Sciences; Ph.D. 2012, Kent State University. (2016)

Barrott, Jared, Assistant Professor, Biomedical and Pharmaceutical Sciences. Ph.D., Duke University, 2014. (2017)

Habashi, Ali, Assistant Professor, Biomedical and Pharmaceutical Sciences. Pharm.D., Tehran University of Medical Science, Iran, 1991; Ph.D., Pharmaceutics (Instrumental and Analytical Chemistry), Tehran University of Medical Science, Iran, 2000; Ph.D., Pharmaceutical Sciences, University of Alberta, Canada, 2014. (2017)

Myers, Robert, Assistant Professor, Biomedical and Pharmaceutical Sciences. B.S. 1984, M.S. 1986, Ph.D. 1990, University of Kansas. (2013)

Pashikanti, Srinath, Assistant Professor, Biomedical and Pharmaceutical Sciences. M.S. 2007, South Dakota State University; M.S. and Ph.D. 2014, University of Kansas. (2016)

Xu, Dong "Danny", Assistant Professor, Biomedical and Pharmaceutical Sciences; Director of Biomedical and Pharmaceutical Sciences Graduate Programs. B.S. 1996, Nan Kal University; M.S. 2003, Ph.D. 2008, San Diego State University. (2012)

Emeriti

Daniels, Christopher K., Professor, Biomedical and Pharmaceutical Sciences. 1988-2012

Fontenelle, L. Judy, Professor, Biomedical and Pharmaceutical Sciences.
1969-1998

Isaacson, Eugene I., Professor, Biomedical and Pharmaceutical Sciences.
1969-1998

Adjunct Faculty

Baker, Elaine, Clinical Assistant Professor, Mann-Grandstaff VA Medical Center. B.S. 1999, M.S. 2001, South Dakota School of Mines and Technology; Pharm.D. 2008, University of the Pacific. (2012)

Barcelon, Michelle, General Medicine Pharmacy Clinical Specialist, Renown Medical Center. Pharm.D. 2008, University of the Pacific, Thomas J Long School of Pharmacy and Health Sciences. (2016)

Cieplak, Deb, Compounding Instructor. (2017)

Furilla, Robert, Professor, WWAMI School of Medical Education. Ph.D. 1986, University of British Columbia. M.Sc. 1980, University of Alaska Fairbanks. (2016)

Gebo-Shaver, Lorri, Owner, Shaver Pharmacy and Compounding Center, Pharm.D., 1993, Idaho State University.

Kator, Ann, Compounding Instructor. B.S. 1979, University of Texas Austin. (2010)

Mancini, Robert, BMT Pharmacy Program Coordinator, PGY2 Residency Program Director, St. Luke's Mountain States Tumor Institute. B.S. 2004, University of California Riverside; Pharm.D. 2008, University of California San Diego. (2016)

Doctor of Pharmacy

Admission to the Doctor of Pharmacy Program

Admission Criteria

- The recommended high school background for students planning to pursue pharmacy includes four units of mathematics and three units of natural science (biology, chemistry and physics)
- The pre-pharmacy curriculum must be completed by the end of spring semester (with the exception of biochemistry) of the admission year
- Applicants are encouraged to obtain pharmacy experience prior to applying, by either shadowing or working in a paid position

Admission Options

Early Decision: An option for students who know Idaho State University is their college of first choice. A minimum GPA of 2.75 is required. The application deadline is September 3.

Regular Application: The traditional option for students who are completing the pre-pharmacy and general education requirements by the end of the spring semester of the admission year. A minimum GPA of 2.5 is required. The application deadline is February 1.

Both options lead to admission into the same Doctor of Pharmacy program.

Application Process

Applications submitted to PharmCAS (<http://pharmcas.org>) between August and February each year are reviewed as they are completed. Applicants receive campus interview decisions within 30 days. Multiple interview dates are available during the fall and spring semesters. Applicants receive acceptance decisions within 30 days.

Application Materials

All PharmD application materials must be received by PharmCAS by the application deadline:

- Completed PharmCAS application for Idaho State University College of Pharmacy, PharmCAS application fee begins at \$175
- Official transcripts of all previous college course work, including detailed evaluation of all international coursework
- Three letters of recommendation, one of which must be from a pharmacist
- Personal Statement

Students with international coursework to be considered must submit an official detailed evaluation report from an institution that is a member of the National Association of Credential Services Incorporated (NACSI) and meet Idaho State University's admission requirements for international students (www.isu.edu/iso/admission).

Pre-Pharmacy Courses

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 2221 & 2221L or BIOL 2235 & 2235L	Introductory Microbiology and Introductory Microbiology Laboratory General Microbiology and General Microbiology Lab	4

BIOL 2227 & 2227L or BIOL 3301 & 3301L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially satisfies General Education Objective 5) Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 2228 & 2228L or BIOL 3302 & 3302L	Human Anatomy and Physiology 2 and Human Anatomy and Physiology 2 Lab Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 4432	Biochemistry	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab (Partially satisfies General Education Objective 5)	4
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
MATH 1160	Survey of Calculus (Satisfies General Education Objective 3)	3
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
PHYS 1111	General Physics I (Partially satisfies General Education Objective 5)	3
ECON 2201 or ECON 2202	Principles of Macroeconomics Principles of Microeconomics	3

Each of the 2 courses above partially satisfies General Education Objective 6. An additional Objective 6 course in another subject must be taken to complete Objective 6 requirements.

Applicant must meet ISU General Education Requirements

Additional Recommended Elective

PHYS 1112	General Physics II (Partially satisfies General Education Objective 5)
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Applicants must have completed 72 credits of undergraduate coursework.

Fulfillment of the specified requirements does not ensure admission into the Doctor of Pharmacy program.

Evaluation of Applicants

- Up to 95 students are admitted each year
- Faculty select the applicants best predicted to complete the curriculum and have productive professional lives
- Invitation for applicants to schedule a campus interview is based upon academic success and other required components of the application
- Preference is given to Idaho and Alaska residents

• Following interview, applicants are notified of their placement into one of three categories:

- Admission
- Reserve for possible admission pending available positions
- No admission

New students are admitted to begin the professional program only in the fall semester each year. All students must be certified in CPR/AED for health care providers and first-aid and demonstrate immunization compliance prior to entering the first professional year. A criminal background check is required.

Admission Under Special Circumstances

Transfer from Other Schools of Pharmacy

Students wishing to transfer from another college of pharmacy should present the following materials to the College of Pharmacy's Associate Dean for Student Affairs before being considered:

1. A letter from the Dean of the previous college of pharmacy certifying status of good academic standing
2. Official transcripts of all pharmacy courses completed to date and that show pre-pharmacy requirements of Idaho State University are complete
3. A letter requesting evaluation of class standing

Curricular Philosophy

We view the curriculum as a tool to develop professionals who assume responsibility for their own learning and who are committed to the advancement of pharmacy practice. The primary curricular goal is the development of a strong foundational knowledge in the biomedical, pharmaceutical and clinical sciences that inculcates a drug-related problem-solving process specific to pharmacy and fosters an evidenced-based approach to optimizing pharmacotherapy and patient health outcomes. We embrace diversity in innovative teaching methods through sound instructional design and encourage the integration of active learning, and multiple curricular and co-curricular opportunities for leadership and professional development. Because it is a dynamic work in progress, we continue to experiment, assess, revise, and innovate within our curriculum to graduate highly competent practitioners.

Professional Curriculum

The professional curriculum requires four years of study. The first three years are a mix of academic courses and practice experiences. The fourth year is comprised of 42 weeks of clinical experiences.

The Doctor of Pharmacy degree can be completed in Pocatello or Meridian, Idaho or in Anchorage, Alaska. Students may complete their fourth year at our clinical sites in Idaho (Meridian, Pocatello, Twin Falls, Coeur d'Alene), at our experiential sites in the Anchorage, Alaska region, or in Reno, Nevada.

The first professional year provides a foundation in the basic and pharmaceutical sciences that includes physiology, biochemistry, pharmacology and pharmaceuticals. Other courses provide a foundation for professional development that includes topics on ethics, law, drug information, research design, patient care, and the health care system.

Courses and clinical experiences in the second and third professional years build on accrued knowledge and skills. The curriculum centers on an integrated, organ-system approach to the therapeutic management of disease. Additional courses

provide insight into the human relation aspects of pharmacy, dosage form design, pharmacy management and physical assessment. A series of case studies courses, designed to enhance the student's knowledge base and problem-solving skills while focusing on the application of knowledge to specific patient cases, spans the first three years.

The last 42 weeks, or the fourth professional year, is devoted to full-time clinical experience in various pharmacy practice environments. Students will complete six-week experiences in various areas of practice. Students will also have the option of selecting an elective in an area of interest.

Given the length of the final year of the PharmD program, students will begin practice experiences in mid-May after completing their third academic year in the professional program and will continue throughout the ensuing twelve (12) months.

Pharmacy Courses

Code	Title	Credits
PHAR 9911	Introductory Pharmacy Practice Experience I	1
PHAR 9921	Biological Basis of Drug Actions I	4
PHAR 9924	Physicochemical Basis of Drug Action	3
PHAR 9931	Health Care I	3
PHAR 9941 & 9941L	Introduction to Pharmacy Practice and Literature I with Lab and Pharmacy Practice and Literature I Lab	4
PHAR 9949 & 9949R	Human Physiology I and Human Physiology I Recitation	4
PHAR 9905	Introduction to Clinical Problem Solving	2
PHAR 9912	Introductory Pharmacy Practice Experience II	1
PHAR 9922	Biological Basis of Drug Actions II	5
PHAR 9923	Professional Development I	0
PHAR 9926 & 9926R	Basic Pharmacokinetics and Calculations and Basic Pharmacokinetics and Calculations Recitation	4
PHAR 9942	Introduction to Pharmacy Practice and Literature II	3
PHAR 9956 & 9956R	Human Physiology II and Human Physiology II Recitation	4
PHAR 9906	Case Studies With Pharmacotherapy Lab I	2
PHAR 9927 & 9927L	Dosage Form Design and Compounding with Lab and Dosage Form Design and Compounding Lab	4
PHAR 9961	Pharmacotherapy I	2-5
PHAR 9962	Pharmacotherapy II	2-5
PHAR 9907	Case Studies with Pharmacotherapy Lab II	2
PHAR 9913	Introductory Pharmacy Practice Experience III	1
PHAR 9933	Professional Development II	0
PHAR 9944 & 9944L	Health Care II and Health Care II Lab	4

PHAR 9963	Pharmacotherapy III	2-5
PHAR 9964	Pharmacotherapy IV	2-5
PHAR 9965	Pharmacotherapy V	2-5
PHAR 9966	Pharmacotherapy VI	2-5
PHAR 9908	Case Studies with Pharmacotherapy Lab III	2
PHAR 9945 & 9945L	Health Care III and Health Care III Lab	4
PHAR 9967	Pharmacotherapy VII	2-5
PHAR 9968	Pharmacotherapy VIII	2-5
PHAR 9914	Introductory Pharmacy Practice Experience IV	1
PHAR 9943	Professional Development III	1
PHAR 9948	Pharmacy Law	2
PHAR 9952	Pharmacotherapy Lab IV	1
PHAR 9969	Pharmacotherapy IX	2-5
PHAR 9970	Pharmacotherapy X	2-5
PHAR 9971 & 9971R	Capstone Pharmacy and Capstone Recitation	2-5
PHAR 9981	Advanced Pharmacy Practice Experience (Students will take 49 credits of PHAR 9981)	7
PHAR 9982	Professional Student Seminar	1
Electives ¹		6

Student must fulfill ISU General Education requirements.

¹ A minimum of six (6) elective credits must be completed prior to beginning APPEs. Elective courses must have relevance to the healthcare profession and serve to enhance the professional skills and knowledge of the student. For more information, refer to the ISU College of Pharmacy Student Handbook (<https://isu.edu/media/libraries/pharmacy/documents/2018-19-Handbook.pdf>).

Plan of Study

First Professional Year (P-1) Curriculum

Fall	Credits	Spring	Credits	Summer	Credits
PHAR 9910	0	PHAR 9905	2	PHAR 9911 ¹	1
PHAR 9921	4	PHAR 9910	0		
PHAR 9924	3	PHAR 9912	1		
PHAR 9931	3	PHAR 9922	5		
PHAR 9941 & 9941L	4	PHAR 9923	0		
PHAR 9949 & 9949R	4	PHAR 9926 & 9926R	4		
		PHAR 9942	3		

	PHAR 9956 & 9956R	4
18		19
		1

Total Credits: 38

¹ The requirement for PHAR 9911 is fulfilled for students who provide evidence of completion of online coursework as well as externship in a licensed or public health pharmacy which has been approved by the College of Pharmacy, the State Board of Pharmacy that has authority over the pharmacy and which was supervised by a licensed preceptor. Students must be enrolled in PHAR 9911 and have completed identified components of the course prior to obtaining extern requirements.

Second Professional Year (P-2) Curriculum

Fall	Credits	Spring	Credits
PHAR 9906	2	PHAR 9907	2
PHAR 9920	0	PHAR 9913	1
PHAR 9927 & 9927L	4	PHAR 9920	0
PHAR 9961	2-5	PHAR 9933	0
PHAR 9962	2-5	PHAR 9944 & 9944L	4
		PHAR 9963	2-5
		PHAR 9964	2-5
		PHAR 9965	2-5
		PHAR 9966	2-5
	10-16		15-27

Total Credits: 25-43

Third Professional Year (P-3) Curriculum

Fall	Credits	Spring	Credits
PHAR 9908	2	PHAR 9914	1
PHAR 9930	0	PHAR 9930	0
PHAR 9945 & 9945L	4	PHAR 9943	1
PHAR 9967	2-5	PHAR 9948	2
PHAR 9968	2-5	PHAR 9952	1
		PHAR 9969	2-5
		PHAR 9970	2-5

PHAR 9971 & 9971R	2-5
10-16	11-20
Total Credits: 21-36	

Electives

Code	Title	Credits
Electives (may be taken in any semester)		6
Total Credits		6

Fourth Professional Year (P-4) Curriculum

Full Calendar Year

Code	Title	Credits
PHAR 9981	Advanced Pharmacy Practice Experience (49 total credits) ¹	7

Joint Doctor of Pharmacy and Master of Business Administration

The College of Pharmacy and College of Business at Idaho State University offer a joint PharmD/MBA program for students interested in earning both degrees. Students complete the traditional PharmD and MBA degree programs with some courses from each program counting towards degree requirements of the other program. Plans of study will differ from student to student; however, it is possible for students to complete the MBA degree by the time they complete their PharmD degree.

Students are encouraged to consider this dual degree program as early as possible and should consider completing the following during their pre-pharmacy coursework:

Code	Title	Credits
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
ECON 2201	Principles of Macroeconomics (Partially satisfies General Education Objective 6)	3
ECON 2202	Principles of Microeconomics (Partially satisfies General Education Objective 6)	3

Many additional MBA-I courses can be completed prior to admission to the PharmD program as well.

Students opting for the dual degree program will follow the traditional PharmD curriculum with the exception that MBA 6612 Human Behavior in Organizations (3 credits) will be substituted for PHAR 9944 Health Care II (3 credits). PharmD/MBA candidates must still complete PHAR 9944L Health Care II Lab (1 credit).

Minor in Pharmaceutical Sciences

The minor in Pharmaceutical science helps students to prepare for careers in biomedical research and/or pharmaceutical industry.

PHAR 9982	Professional Student Seminar	1
Total Credits		8

¹ The following experiences are taken as PHAR 9981 Advanced Pharmacy Practice Experiences (APPE):
 Ambulatory Care - 6 weeks
 Advanced Community - 6 weeks
 Advanced Institutional - 6 weeks
 General Medicine - 6 weeks
 Patient Care/Elective - 18 weeks (A maximum of 12 weeks of experience is allowed in any specialty practice area.)
 TOTAL: 42 weeks

Total for Doctor of Pharmacy Degree, including a minimum of 6 elective credits: 228

In addition, completion of the following courses can be used to satisfy six hours of electives required for the PharmD degree: MBA 6610, MBA 6611, MBA 6613, MBA 6614, MBA 6615.

Students must work with both the pharmacy and MBA advisors for the joint program to determine their individual plan of study.

MBA program requirements include satisfactory completion of MBA-I and MBA-II core courses. Many MBA-I courses can be completed prior to admission to the MBA program and prior to the end of the third professional year of the PharmD program. MBA-II courses can only be completed after students have been admitted to the Graduate School and have completed the prerequisite MBA-I courses. MBA-II courses require the payment of Graduate School course fees.

In addition to MBA-II core courses, students are required to complete six additional hours of electives. PharmD/MBA candidates who are admitted into the MBA-II program prior to their fourth professional year may choose to complete a pharmacy management rotation which will satisfy six hours of MBA-II electives.

For Doctor of Pharmacy students to be admitted to the MBA program, they must meet regular admission requirements for the MBA program and must have completed either a bachelor's degree or the equivalent. PharmD students applying to the MBA program must request the College of Pharmacy to certify to the Graduate School that they have completed 120 hours of course work and that those 120 hours are equivalent to a bachelor's degree. Students will generally apply for admission to the MBA program sometime prior to the end of their second year of study in the PharmD program.

For more information see the "MBA and PharmD Joint Degree Program (<http://coursecat.isu.edu/graduate/business/#programstext>)" section of the Graduate Catalog.

Required Courses

Code	Title	Credits
PSCI 2205	Drugs in Society	2
PSCI 3301	Introduction to Pharmacology	3
PSCI 3353	Introduction to Methods in Pharmaceutical Sciences	2
PSCI 4438	Pharmaceutical Science Research	2
In addition, the student must take a minimum of 9 additional elective credits from the list below of elective courses.		9
Total Credits		18

Elective courses

Code	Title	Credits
PSCI 3308	Drug Discovery	2
PSCI 3368	Introduction to Toxicology	3
PSCI 4401	Drug Abuse	2
PSCI 4402	Immunopharmacology	2
PSCI 4403	Infectious Diseases and Natural Products	3
PSCI 4404	Pulmonary and Cardiac Pharmacology	3
PSCI 4405	Behavioral Pharmacology	2
PSCI 4406	Introduction to Endocrinology	2
PSCI 4407	Pharmacogenomics	2
PSCI 4408	Medicinal Chemistry	3
PSCI 4430	Psychopharmacology	3
PSCI 4431	Cancer Biology	3
PSCI 4432	Anti-cancer Drugs	3
PSCI 4433	Physical Pharmaceutics	3
PSCI 4434	Pharmacokinetics	3
PSCI 4436	Special Topics in Oncology	1
PSCI 4441	Diabetes for Health Sciences	2
PSCI 4462	Neuropharmacology	3
PSCI 4482	Special Topics in Pharmaceutical Sciences	1-3

College of Rehabilitation and Communication Sciences

Program Description	Type	Degree
Communication Sciences and Disorders, Pre-Speech-Language Pathology, B.S. (p. 336)	Degree	B.S.
Communication Sciences and Disorders, Pre-Audiology, B.S. (p. 337)	Degree	B.S.
Sign Language Interpreting, B.S. (p. 338)	Degree	B.S.
Sign Language Studies, A.S. (p. 338)	Degree	A.S.
Sign Language Studies, Minor (p. 339)	Minor	
Health Science, B.S. with Concentration in Pre-Occupational Therapy (p. 343)	Degree	B.S.
Health Science, B.S. with Concentration in Pre-Occupational Therapy, Accelerated (p. 344)	Degree	B.S.

The College of Rehabilitation and Communication Sciences (CRCS) is home to 5 professions organized in 2 departments: the Department of Communication Sciences and Disorders (CSD) and the Department of Physical and Occupational Therapy (DPOT). The structure of the College reflects the organization found in many educational and medical facilities, acknowledging the strong relationships

College of Rehabilitation and Communication Sciences Leadership

Dean, College of Rehabilitation and Communication Sciences

Kangas, Kathleen A. * Professor, Communication Sciences & Disorders. B.S. 1974, Northern Michigan University; M.S.P.A. 1977, University of Washington, Seattle; Ph.D. 1990, Purdue University. (1990)

Chair, Communication Sciences and Disorders

Sanford, Chris,* Associate Professor (Audiology) and Chair, Communication Sciences & Disorders. B.S. 1997, M.S. 1999, Brigham Young University; Ph.D. 2006, University of Washington; Postdoctoral Fellowship, 2009, Boys Town National Research Hospital. (2009)

Chair, Physical and Occupational Therapy

Gee, Bryan M., Department Chair, Physical and Occupational Therapy; Director and Associate Professor, Occupational Therapy. B.S. 2002, D'Youville College; M.S. 2002, OTD 2007, University of St. Augustine. (2007)

found among these disciplines. The PhD in Rehabilitation and Communication Sciences spans both departments.

Mission Statement

The shared mission of the College of Rehabilitation and Communication Sciences (CRCS) is to advance the overall missions of Idaho State University and the Kasiska Division of Health Sciences by educating current and future rehabilitation and communication science professionals. The CRCS fosters interprofessional academic and clinical experiences for the faculty and students to promote excellence in providing collaborative evidence-based practice, and ethical patient/client-centered care. We serve the state of Idaho and the world by providing innovative, accessible learning experiences via on-site, distance and online courses, graduating knowledgeable, accomplished professionals, and influencing future professional practice through our vital contributions to research and creative scholarly activities.

Leadership (p. 332)

Communication Sciences and Disorders

Program Description	Type	Degree
Communication Sciences and Disorders, Pre-Speech-Language Pathology, B.S. (p. 336)	Degree	B.S.
Communication Sciences and Disorders, Pre-Audiology, B.S. (p. 337)	Degree	B.S.
Sign Language Interpreting, B.S. (p. 338)	Degree	B.S.
Sign Language Studies, A.S. (p. 338)	Degree	A.S.
Sign Language Studies, Minor (p. 339)	Minor	

Department of Communication Sciences and Disorders

Degrees

The Department of Communication Sciences and Disorders offers an Associate of Science Degree in Sign Language Studies, a Bachelor of Science Degree in Sign Language Interpreting, and a Bachelor of Science Degree in Communication Sciences and Disorders, with an emphasis in either Pre-Audiology or Pre-Speech-Language Pathology. These degrees provide the education and training necessary for individuals who wish to work in education, hospitals, clinics, governmental agencies, skilled nursing facilities, medical offices, and more.

The professions represented within the department seek to help children, youth, and adults with communication disabilities and differences that are either present at birth or acquired later in life. Curricula rich in biological and social sciences in conjunction with rigorous departmental courses in evaluation, treatment, teaching, and research lead our graduates to gainful employment and diverse career opportunities. The career path an individual takes will depend upon training and personal goals. Those who accept the challenge of these professions will find that the effort put forward to earn degrees will be rewarding.

Associate of Science Degree in Sign Language Studies

The Associate of Science Degree in Sign Language Studies is a two year degree that is primarily designed for students who wish to prepare for the Sign Language Interpreting Program or for students who wish to obtain an interim degree before entering another major, such as Deaf Education. The Sign Language Studies degree focuses on American Sign Language skills through academic courses and labs designed to provide a small group setting to facilitate instructor feedback and guidance.

Bachelor of Science Degree in Sign Language Interpreting

The Bachelor of Science Degree in Sign Language Interpreting is designed to prepare students for employment as interpreters in a variety of settings with an emphasis in K-12 environments. An associate degree in Sign Language Studies or its equivalent is required. Students are taught with a "hands on" approach as they learn about Deaf culture, how to collaborate in a professional setting, and participate in field observations culminating with an interpreting internship. Public and private education programs, local and state public health units, institutions such as the Idaho, Montana, and Utah Schools for the Deaf and the Blind, and vocational rehabilitation agencies participate in affiliate service and training. Internship sites may require record of vaccinations and a police background check. The Bachelor of Science in Sign Language Interpreting is offered only at the ISU-Meridian Health Science Center.

Bachelor of Science Degree in Communication Sciences and Disorders, with Emphases in Pre-Audiology and in Pre-Speech-Language Pathology

The areas of Speech-Language Pathology and Audiology have foundations grounded in basic communicative behavior. Included in these emphases are the study of biological and social sciences, phonetics, acoustics, neurology, development of normal speech, language, and hearing abilities as well as deviations from normal communicative processes. Students are introduced to assessment and treatment procedures at the undergraduate level. The Bachelor of Science degree emphases prepare students to apply to graduate programs in either Speech-Language Pathology or Audiology.

Idaho State University has the distinction of offering the bachelor's degree with emphasis in Pre-Speech-Language Pathology, as well as the Master of Science degree in Speech-Language Pathology, on both the Pocatello and Meridian campuses. The Master of Science degree is also offered online, although attendance on our campus is mandatory for 8 weeks the first summer and 1 week the second summer of the program. Many departmental classes are taught via distance learning technology with clinical and academic faculty at both sites. Students should note that admission to graduate programs is competitive.

The combined bachelor's and master's programs in Speech-Language Pathology and the bachelor's and clinical doctorate programs in Audiology are designed to prepare students to meet the academic and clinical requirements for the Idaho Department of Education Certificate for Speech-Language Pathologist or Audiologist, state licensing, and the Certificate of Clinical Competence issued by the American Speech-Language Hearing Association (ASHA). Both the graduate programs in Speech-Language Pathology and Audiology are accredited by the Council of Academic Accreditation of ASHA. Additional information about the graduate programs in Speech-Language Pathology and Audiology can be found in the Graduate Catalog (<http://coursecat.isu.edu/graduate>), Kasiska Division of Health Sciences, Department of Communication Sciences and Disorders (<http://coursecat.isu.edu/graduate/healthscience/communicationsciencesdisorders>).

Admission to Bachelor's Degree Programs on Meridian Campus

Students entering the bachelor's degree programs at the ISU-Meridian Health Science Center must apply for admission because space in these programs is limited. Students planning to major in Communication Sciences and Disorders must have a GPA of 3.0 or better after completing 40 semester hours. Students planning to major in Sign Language Interpreting must have an associate degree in Sign Language Studies or its equivalent, must have an overall GPA of 2.75 or higher, and must have a GPA of 3.0 or better in skill courses (e.g., ASL, interpreting). For more information, call 208-373-1908 or go to the Department Webpage at <https://www.isu.edu/csd/>.

Junior Transfer Programs

It is recommended that students interested in the Meridian undergraduate program complete their general education requirements before transferring to Idaho State University-Meridian. General Education classes are not offered at the Idaho State University-Meridian Center. Junior transfer students may complete the requirements for a Bachelor of Science degree within two years at Idaho State University. January junior transfers may complete the program requirements in two and one half years. Students interested in the undergraduate program at Idaho State University-Meridian should call (208) 373-1908 for additional information. Students wishing to transfer from the Pocatello campus to the Meridian campus should call that same number.

Pre-Professional Coursework

Students with undergraduate degrees in disciplines other than Communication Sciences and Disorders must take a series of courses that are prerequisite to entering the master's degree program. These courses are delivered in two formats. The traditional Pre-Professional Program format involves 13 courses provided through on-campus classroom instruction over the course of two semesters and a summer. The Online Pre-Professional Program (OPP) involves delivery of 13 courses via totally online format, designed to provide nontraditional students with a means of acquiring these courses. Note that the online courses require extra fees, and the program is available to individuals seeking degrees at other institutions. The course sequence and specific aspects of the programs may be found on the Communication Science & Disorders home page at <https://www.isu.edu/slp>. Completion of the Pre-Professional coursework does not guarantee a spot in the graduate program.

Academic Standards

Each student is responsible for completing the required coursework in the proper sequential order. Required prerequisite courses must be completed before the student can enroll in upper division departmental courses. Transfer students may submit petitions to the department for equivalent recognition of required courses. Students must maintain a GPA of 2.25 and obtain a letter grade of "C-" or better in departmental courses counting toward fulfillment of graduation requirements. A grade of "D+" in departmental courses will not be counted toward satisfaction of requirements for the major. All students must meet with their advisors each semester.

Practicum Standards

Students within the department may enroll in limited practicum activities as seniors. Specified departmental course requirements must be met before a student enrolls.

Clinical Services

The Idaho State University Speech-Language and Hearing Clinic on the Pocatello Campus and the Speech and Language Clinic at the ISU Meridian Health Sciences Center offer a variety of clinical training opportunities for students while providing valuable services to the community. Among our audiological services offered at the Pocatello campus are complete audiological and vestibular testing, hearing aid evaluation, auditory training, aural habilitation and rehabilitation, including services for individuals with cochlear implants. The Speech and Language Clinics in Pocatello and Meridian offer evaluation and treatment of speech and language disorders, stuttering, voice, alternative and augmentative communication, and speech-language problems associated with cerebral palsy, traumatic brain injury, autism, cleft palate, and stroke. Specialized group therapy is offered for preschool children with communication needs, toddlers and children with cochlear implants, and adults with aphasia. Clients served in our clinics range in age from infancy to adulthood and all clinical services are provided by experienced students under the direction of ASHA-certified clinical faculty.

CSD Faculty (p. 334)

CSD Courses (p. 529)

Communication Sciences and Disorders Faculty

Chair and Associate Professor

Sanford, Chris,* Associate Professor (Audiology) and Chair, Communication Sciences & Disorders. B.S. 1997, M.S. 1999, Brigham Young University; Ph.D. 2006, University of Washington; Postdoctoral Fellowship, 2009, Boys Town National Research Hospital. (2009)

Associate Chair and Clinical Professor

Loftin, Joni Grey, Clinical Professor and Associate Chair, Communication Sciences & Disorders. B.S. 1984, Appalachian State University; M.S. 1986, University of South Carolina. (1990)

Professor

Kangas, Kathleen A.,* Dean, College of Rehabilitation and Communication Sciences; Professor, Communication Sciences & Disorders. B.S. 1974, Northern Michigan University; M.S.P.A. 1977, University of Washington, Seattle; Ph.D. 1990, Purdue University. (1990)

Associate Professors

Bargen, Gabriel, Associate Professor (Audiology), Communication Sciences & Disorders. B.S. 2000, Texas Christian University; M.S.Ed. 2002, University of Nebraska at Kearney; M.A. 2006, University of Kansas Medical Center; Ph.D. 2010, University of Kansas. (2010)

Blaiser, Kristina, Associate Professor (SLP), Communication Sciences & Disorders. B.S. 1996, University of Wisconsin; M.A. 1998, University of Minnesota; Ph.D. 2010, University of Minnesota. (2014)

Brocket, Jeff,* Associate Professor (Audiology), Communication Sciences & Disorders. B.S. 1982, M.S. 1987, Ed.S. 1998, Ed.D. 2002, Idaho State University. (1994)

Hudock, Daniel J., Associate Professor (SLP), Communication Sciences & Disorders. B.S. 2006, Clarion University of Pennsylvania; M.S. 2008, Ph.D. 2012, East Carolina University. (2012)

Ogiela, Diane, Associate Professor (SLP), Communication Sciences & Disorders. B.A. 1991, Illinois Benedictine College; M.A. 1993, Syracuse University; M.S. 1995, Purdue University; Ph.D. 2007, Michigan State University; Postdoctoral Fellowship, 2009, Callier Center for Communication Disorders. (2011)

Ramsdell-Hudock, Heather L., Associate Professor (SLP) and SLP Program Director, Communication Sciences & Disorders. B.A. 2001, Iona College; M.S. 2003, Boston University; Ph.D. 2009, University of Memphis. (2012)

Assistant Professor

Brock, Kristofer, Assistant Professor (SLP), Communication Sciences & Disorders. B.S. 2005, University of the Pacific; M.S. 2008, University of the Pacific; Ph.D. 2015, Texas Tech University Health Sciences Center. (2018)

Cummings, Alycia, Assistant Professor (SLP), Communication Sciences & Disorders. B.A. 2000, Stanford University; Ph.D. 2009, University of California and San Diego State University. (2017)

Scharp, Victoria (Tori), Assistant Professor (SLP), Communication Sciences & Disorders. B.S. 2000, M.A. 2002, Miami University; Ph.D. 2016, University of Pittsburgh. (2016)

Clinical Professors

Guzi, Beth Ann, Clinical Professor (SLP), Communication Sciences & Disorders. B.A. 1983, Michigan State University; M.S. 1985, University of Michigan; M.C. 2010, Idaho State University. (2004)

Holst, Jennifer E., Clinical Professor (Audiology), Communication Sciences & Disorders. B.S. 1997, University of Wyoming; M.S. 1999, Idaho State University; Au.D. 2004, Salus University. (2005)

Whitaker, Mary M., Clinical Professor (Audiology) and Audiology Division Director, Communication Sciences & Disorders. B.S., 1984, University of Utah; M.S. 1986, University of Arizona; Ed.S. 1998, Idaho State University; Au.D. 2005, University of Florida. (1986)

Clinical Associate Professors

Hardy, Amy E., Clinical Associate Professor (SLP), Communication Sciences & Disorders. B.S. 1996, Arizona State University; M.S. 2001, Northern Arizona University. (2011)

Morgan, Wendy, Clinical Associate Professor (SLP), Communication Sciences & Disorders. B.S. 1993, M.S. 1995, Idaho State University. (2012)

Schriedewind (Morgan), Elizabeth F., Clinical Associate Professor (Sign Language), Communication Sciences & Disorders. B.A. 1990, M.A. 1992, Gallaudet University. (2013)

Smith, Shauna, Clinical Associate Professor (SLP), Communication Sciences & Disorders. B.S. 2003, M.S. 2005, Idaho State University; Certification in Orofacial Myology 2012, International Association of Orofacial Myology. (2009)

Clinical Assistant Professors

Andrew, LaVona, Clinical Assistant Professor (Sign Language) and Sign Language Interpreting Program Director, Communication Sciences & Disorders. A.A. 1995, Cottey College; B.S. 2000, Brigham Young University; M.A. 2004, Boise State University. (2018)

Cheadle, Nancy, Clinical Assistant Professor (Audiology), Communication Sciences & Disorders. B.A. 2004, California State University; Au.D. 2009, Idaho State University. (2015)

Hansen, Karrie Cummings, Clinical Assistant Professor (SLP), Communication Sciences & Disorders. B.A. 2000, Boise State University; M.S. 2005, Idaho State University. (2010)

Miller, Karissa, Clinical Assistant Professor (SLP), Communication Sciences & Disorders. B.S. 2005, M.S. 2007, Idaho State University. (2016)

Pierce Ament, Robin, Clinical Assistant Professor (SLP), Communication Sciences & Disorders. B.S. 1985, Brigham Young University; M.A. 1993, University of Colorado. (2010)

Radford, Jill M., Clinical Assistant Professor (Sign Language), Communication Sciences & Disorders. B.S. 2000, Utah State University; M.Ed. 2001, Utah State University; Ed.S. 2011 Gallaudet University. (2018)

Smith, Corrie, Clinical Assistant Professor (Audiology), Communication Sciences & Disorders. B.S. 2007, University of Nevada; Au.D. 2011, Idaho State University. (2014)

Stubbs, Steven G., Clinical Assistant Professor (Sign Language), Communication Sciences & Disorders. B.A. 1997, University of Maryland. (2015)

Van Donsel, Mary, Clinical Assistant Professor (SLP), Communication Sciences & Disorders. B.A. 1997, Randolph-Macon Woman's College; M.S. 2001, Medical University of South Carolina. (2014)

Vieira, Deborah M., Clinical Assistant Professor (Audiology), Communication Sciences & Disorders. B.S. 1992, Idaho State University; M.S. 1997, Idaho State University. (2018)

Woods, Dave, Clinical Assistant Professor (SLP), Communication Sciences & Disorders. B.A. 1996, Brigham Young University; M.S. 1998, University of Arizona. (2017)

Emeriti

Bain, Barbara A., Director of Undergraduate Studies and Professor, Communication Sciences & Disorders, and Education of the Deaf. 1989-2004

Johnson, Jeanne M.,* Professor, Communication Sciences & Disorders; Education of the Deaf. 2009-2016

Schow, Ronald L., Professor, Audiology. 1975-2007

Seikel, John Anthony "Tony,"* Assessment Coordinator, Health Sciences; Professor, Communications Sciences & Disorders. 1998-2015

Smedley, Thayne, Professor, Audiology. 1983-2001

Wallber, M. Josara, Clinical Associate Professor, Communications Sciences & Disorders. 2006-2014

Weston, Audrey, D.,* Professor, Speech Language Pathology. 1990-2005

Willer, Janene, Clinical Associate Professor, Communication Sciences & Disorders. 1990-2011

Bachelor of Science in Communication Sciences and Disorders, Pre-Speech-Language Pathology

The following courses are required in addition to the university's General - Education Requirements (p. 57).

Required Departmental Courses

Code	Title	Credits
CSD 1126	Deaf Studies	2
CSD 1151	American Sign Language I	3
CSD 1151L	American Sign Language I Laboratory	1
CSD 2205	Introduction to Professions in Communication Sciences	3
CSD 3310	Speech Science: The Acoustical Nature of Sound and Speech	3
CSD 3341	Audiometry and Hearing Science	3
CSD 4405	Neuroscience for Communication Disorders	3
CSD 4417	Interdisciplinary Evaluation Team	1
CSD 4445	Aural Rehabilitation	3
CSD 4460	Educational Audiology	3
Total Credits		25

Other Required Courses

Code	Title	Credits
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially Satisfies General Education Objective 5)	4
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
ENGL 3307	Professional and Technical Writing	3
HCA 1110	Introduction to the Allied Health Professions	3
or HCA 1115		
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
PSYC 2225	Child Development	3
or PSYC 3332		
SOC 2248	Critical Analysis of Social Diversity (Satisfies General Education Objective 7)	3

Subtotal 22

NOTE: BIOL 2227 and BIOL 2227L may be waived for transfer students who are transferring courses equivalent to BIOL 3301. BIOL 3301/BIOL 3301L requires BIOL 1101/BIOL 1101L or BIOL 2227/BIOL 2227L as a prerequisite. Either BIOL 1101/BIOL 1101L or BIOL 2227/BIOL 2227L will partially fulfill General Education Objective 5.

Recommended Course

Code	Title	Credits
ANTH/ENGL 1107	Nature of Language	3

Required Courses:

Code	Title	Credits
CSD 3315	Clinical Processes Pediatric	2
CSD 3321	Clinical Phonetics and Phonology	3
CSD 3325	Speech Sound Development and Disorders	3
CSD 3325L	Speech Sound Development and Disorders Lab	1
CSD 3330	Language Science	3
CSD 3335	Language Development and Disorders	3
CSD 3350	Anatomy & Physiology of the Speech and Swallowing Mechanisms	3
CSD 3350L	Anatomy & Physiology of the Speech and Swallowing Mechanisms Lab	1
CSD 4420	Clinical Processes Adult	2
Take one of the following courses in partial fulfillment of General Education Objective 5:		4-5

CHEM 1100 Concepts of Chemistry
or CHEM 1111/1111L General Chemistry I
or PHYS 1100 Essentials of Physics
or PHYS 1101/1101L Elements of Physics
or PHYS 1111/1113 General Physics I

Subtotal 13

Recommended Course:

Code	Title	Credits
CSD 4425	Speech Language Pathology Methods and Application	2

Bachelor of Science in Communication Sciences and Disorders, Pre-Audiology

The following courses are required in addition to the university's General - Education Requirements (p. 57).

Required Departmental Courses

Code	Title	Credits
CSD 1126	Deaf Studies	2
CSD 1151	American Sign Language I	3
CSD 1151L	American Sign Language I Laboratory	1
CSD 2205	Introduction to Professions in Communication Sciences	3
CSD 3310	Speech Science: The Acoustical Nature of Sound and Speech	3
CSD 3341	Audiometry and Hearing Science	3
CSD 4405	Neuroscience for Communication Disorders	3
CSD 4417	Interdisciplinary Evaluation Team	1
CSD 4445	Aural Rehabilitation	3
CSD 4460	Educational Audiology	3
Total Credits		25

Other Required Courses

Code	Title	Credits
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially Satisfies General Education Objective 5)	4
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
ENGL 3307	Professional and Technical Writing	3
HCA 1110	Introduction to the Allied Health Professions	3
or HCA 1115		
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
PSYC 1101	Introduction to Psychology (Partially satisfies General Education Objective 6)	3
PSYC 2225	Child Development	3
or PSYC 3332		
SOC 2248	Critical Analysis of Social Diversity (Satisfies General Education Objective 7)	3
Subtotal		22

NOTE: BIOL 2227 and BIOL 2227L may be waived for transfer students who are transferring courses equivalent to BIOL 3301. BIOL 3301/BIOL 3301L requires BIOL 1101/BIOL 1101L or BIOL 2227/BIOL 2227L as a prerequisite. Either BIOL 1101/BIOL 1101L or BIOL 2227/BIOL 2227L will partially fulfill General Education Objective 5.

Recommended Course

Code	Title	Credits
ANTH/ENGL 1107	Nature of Language	3

Students choosing the Emphasis in Pre-Audiology must complete the degree requirements above, the Required Courses listed below, and 8 credits from the list of Elective Courses.

Required Courses

Code	Title	Credits
CSD 2256	Deaf Culture and Community (Satisfies General Education Objective 9)	3
CSD 3340	Communication Development and Disorders: Lifetime Perspective	3
CSD 4415	Clinical Practicum in Audiology	2-4
CSD 4416	Audiology Methods and Applications	1
Plus electives		8
Subtotal		17 or 19

Elective Courses:

Electives not on the list may be taken with Audiology Faculty approval.

Code	Title	Credits
ANTH 4408	Topics in Medical Anthropology	3
ANTH 4409	Clinical Medical Anthropology	3
BIOL 3302	Advanced Human Anatomy and Physiology 2	3
BIOL 3302L	Advanced Human Anatomy and Physiology 2 Lab	1
COUN 2200	Multicultural Development	1
COUN 2201	Introduction to Leadership	1
COUN 2210	Human Relations at Work	3
COUN 3300	Interpersonal Skills in Health Professions	2
CSD 3315	Clinical Processes Pediatric	2
CSD 3321	Clinical Phonetics and Phonology	3
CSD 3325	Speech Sound Development and Disorders	3
CSD 3325L	Speech Sound Development and Disorders Lab	1
CSD 3330	Language Science	3
CSD 3335	Language Development and Disorders	3
CSD 3350	Anatomy & Physiology of the Speech and Swallowing Mechanisms	3
CSD 3350L	Anatomy & Physiology of the Speech and Swallowing Mechanisms Lab	1
CSD 4420	Clinical Processes Adult	2
CSD 4425	Speech Language Pathology Methods and Application	2
DHS 4401	Mindfulness in Health Science	1-2
DHS 4402	Survey of Aging Issues	3
DHS 4403	Interprofessional Systems in Geriatric Management	3
DHS 4404	Geriatric Interprofessional Collaborative Practice Internship	2
DHS 4406	The Mindful Practitioner	2
DHS 4410	Fundamentals of Mindfulness	2

DHS 4426	Evidence Based Research in Health Sciences	3	PHYS 1100	Essentials of Physics	4
DHS 4480	Genetics for Health Care Professionals	2	PHYS 1111	General Physics I	3
HCA 2210	Medical Terminology and Communication	2	PHYS 1112	General Physics II	3
HCA 3340	Healthcare Policy	3	PSYC 2225	Child Development	3
HCA 3350	Organizational Behavior in Healthcare	3	PSYC 3341	Social Psychology	3
HCA 4475	Health Law and Bioethics	3	PSYC 3344	Adult Development and Aging	3
HE 2200	Promoting Wellness	3	PSYC 4431	Behavioral Neuroscience I	3
HE 4425	Patient Education Skills	2	PSYC 4446	Cognitive Process	3
PHIL 2230	Medical Ethics	3	SPED 3330	The Exceptional Child	3

Bachelor of Science in Sign Language Interpreting

The following courses are required in addition to an Associate Degree or - equivalent in Sign Language Studies or related area:

Required Courses¹

Code	Title	Credits
CSD 3301	English Text Analysis	3
CSD 3302	Specialized Terminology in English for Interpreters	3
CSD 3331	Translation	3
CSD 3332	Consecutive Interpreting	3
CSD 3345	Ethics and Decision-Making for Interpreters	3
CSD 3346	Specialized Settings and Scenarios in Interpreting	3
CSD 3351	Linguistics of American Sign Language	3
CSD 3352	Depiction in American Sign Language	3
CSD 3374	Service Learning in the Deaf Community	1

CSD 4401	Research and Interpreting	3
CSD 4431	Simultaneous Interpreting	3
CSD 4432	Senior Seminar in Interpreting	6
CSD 4441	Professional Interpreting Practice and Relationships	3
CSD 4451	Advanced Discourse in American Sign Language	3
CSD 4470	Field Observation and Theoretical Application of Interpreting (6 credits minimum) ²	6
CSD 4474	Interpreting Internship	8
Subtotal		59-63

¹ In addition to the 33 credits listed in the Associate of Science in Sign Language Studies

² Students repeat CSD 4470 over 3 semesters for a total of 6 credits.

Associate of Science Sign Language Studies

The following courses are required in addition to the university's General Education Requirements (p. 57):

Code	Title	Credits
CSD 1126	Deaf Studies	2
CSD 1151	American Sign Language I	3
CSD 1151L	American Sign Language I Laboratory	1
CSD 1152	American Sign Language II	3
CSD 1152L	American Sign Language II Laboratory	1
CSD 2205	Introduction to Professions in Communication Sciences	3
CSD 2249	Fingerspelling and Numbers	3

CSD 2250	Introduction to the Interpreting Profession	3
CSD 2251	American Sign Language III	4
CSD 2251L	American Sign Language III Laboratory	0
CSD 2252	American Sign Language IV	4
CSD 2252L	American Sign Language IV Laboratory	0
CSD 2256	Deaf Culture and Community (Satisfies General Education Objective 9)	3
CSD 2258	Language Acquisition in American Sign Language	3
Total Credits		33

Minor in Sign Language Studies

Procedure: Interested students should contact the department to declare a minor and be assigned a minor advisor.

Required Courses

Code	Title	Credits
CSD 1126	Deaf Studies	2
CSD 1151	American Sign Language I	3
CSD 1151L	American Sign Language I Laboratory	1
CSD 1152	American Sign Language II	3
CSD 1152L	American Sign Language II Laboratory	1
CSD 2205	Introduction to Professions in Communication Sciences	3
CSD 2256	Deaf Culture and Community (Satisfies General Education Objective 9)	3

Electives - A minimum of 18 departmental course credits are required. Students may choose from the following list of elective courses to reach the minimum 18 credits.

CSD 2249	Fingerspelling and Numbers	3
CSD 2250	Introduction to the Interpreting Profession	3
CSD 2251	American Sign Language III	4
CSD 2251L	American Sign Language III Laboratory	0
CSD 2252	American Sign Language IV	4
CSD 2252L	American Sign Language IV Laboratory	0
CSD 2258	Language Acquisition in American Sign Language	3
CSD 3341	Audiometry and Hearing Science	3
CSD 3351	Linguistics of American Sign Language	3
CSD 3352	Depiction in American Sign Language	3
CSD 4420	Clinical Processes Adult	2
SPED 3330	The Exceptional Child	3

Department of Physical and Occupational Therapy

Program Description	Type	Degree
Health Science, B.S. with Concentration in Pre-Occupational Therapy (p. 343)	Degree	B.S.
Health Science, B.S. with Concentration in Pre-Occupational Therapy, Accelerated (p. 344)	Degree	B.S.

Department of Physical and Occupational Therapy

The Department of Physical and Occupational Therapy offers the Doctor of Physical Therapy (DPT) and the Master of Occupational Therapy graduate degrees for those students wanting to enter the professions of occupational or physical therapy. The programs are three years in length and degrees are granted after successful completion of all academic and clinical requirements. Both graduate degree programs are accredited.

The Physical Therapy Graduate Program is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria, Virginia, 22314; Telephone: 703-706-3245; email: accreditation@apta.org; website: <http://www.capteonline.org>.

The Occupational Therapy Graduate Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. AOTA's Phone number is 301-652-AOTA; website is <http://www.acoteonline.org>. Graduates will be able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT).

A 3.0 overall GPA for all prerequisite course work and a 3.0 GPA in each science area is required for consideration for admission into either program. Applicants must additionally meet all requirements for admission to the Graduate School. In addition to specific course prerequisites, applicants will have to provide evidence of having worked in a physical therapy or an occupational therapy setting as an aide or volunteer.

Undergraduate students preparing for physical or occupational therapy should choose a major that is of interest to them and will assist in completion of prerequisite course work. Baccalaureate students will have advisors in their major department, but should also seek additional health professions' advising through the Pre-Health Advising Office. Students who have completed a baccalaureate degree and who are completing prerequisites for physical or occupational therapy should call the Department of Physical and Occupational Therapy for appropriate advising. For further information on physical therapy or occupational therapy entrance requirements and program description, refer to the Graduate Catalog (<http://coursecat.isu.edu/graduate>) or department website at <http://www.isu.edu/dpot/>.

Admission into the Physical Therapy Program

Although any undergraduate major is acceptable for entry into the Doctor of Physical Therapy program, preparation must provide a strong background in natural and social sciences and include the following prerequisite courses.

Physical Therapy Program Prerequisites

- **BIOLOGY (3 courses)**. Botany courses will NOT be accepted.

1 & 2. Anatomy and Physiology each with laboratory (vertebrate or human), 2 semesters or 2-3 quarters. This course must have been completed within the last 7 years. Courses on human anatomy and physiology MUST be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

3. Exercise Physiology, 2 or 3 credits. This course may be found in Physical Education departments.

• CHEMISTRY (2 courses)

1 & 2. Introductory Chemistry with laboratory, 2 semesters or 2-3 quarters. A more recently completed chemistry course at upper division or graduate level with laboratory may also meet this requirement. Must be courses for science majors.

• PHYSICS (2 courses)

1 & 2. Introductory Physics with laboratory, 2 semesters or 2-3 quarters. A more recently completed physics course at upper division or graduate level with laboratory may also meet this requirement. Must be courses for science majors.

• MATHEMATICS (1 course)

1. Statistics - 3 or more units. Courses about research methods or tests and measurements will NOT meet this requirement.

• PSYCHOLOGY and SOCIOLOGY or ANTHROPOLOGY or HEALTH SCIENCE (3 courses)

1. Introductory Psychology. More recent upper division psychology courses may be accepted.

2. Sociology or Anthropology or Health Science or Psychology (1 course). This course must be relevant to health care, rural societies, cultural diversity, aging, health care administration, abnormal psychology, or epidemiology. Marriage/Family, religion, or history courses will NOT meet this requirement.

3. Course in Human Development or Motor Development Learning (2-3 - credits).

• MEDICAL TERMINOLOGY (1 semester)

1. One semester of medical terminology.

Computer Competence and Technical Writing

Applicants must be competent in working with computers and be able to use word processing and spreadsheet software prior to entry into the program. A course in technical writing is strongly recommended.

Admission into the Occupational Therapy Program

Students may be admitted for fall semester entry into the Master of Occupational Therapy (MOT) program through the normal graduate school admissions procedure by satisfactorily completing the prescribed prerequisite courses and

satisfying the other admission requirements as listed on the MOT program application form.

Students may also have the option of early pre-professional entry into the program through the established guidelines of the Bachelor of Science in Health Science (BSHS), Pre-Occupational Therapy, Accelerated Concentration. During the first three years of this Concentration of the BSHS degree, students follow a structured course of study that will meet their interests, university degree requirements, and Occupational Therapy Program admissions requirements. Students may apply to this degree option in the Fall of their junior year. Students are admitted to the pre-professional year for occupational therapy during their senior year on a competitive basis. With successful completion of the pre-professional year in the OT program, each student will receive a Bachelor of Science in Health Science degree and continue (after acceptance by the Graduate School) directly into the second and third year curriculum for the MOT degree.

The combination of the BSHS and MOT program creates a seamless entry into the occupational therapy profession, ensuring that all prerequisites in social, physical, and biological sciences are completed in a timely manner. For further information on the BSHS and the MOT program, contact the Department of Physical and Occupational Therapy at (208) 282-4095 or Dr. Kelly Thompson, Director of BSHS Pre OT Accelerated (thomkel2@isu.edu).

MOT Program Prerequisites

- **SOCIAL BEHAVIORAL SCIENCE (4 courses, 3 credits each)**

Human Development - 1 semester
Sociology - 1 semester
Abnormal Psychology - 1 semester
Cultural Anthropology - 1 semester

- **BIOLOGY (2 courses, 4 credits each)**

Anatomy and Physiology, each with laboratory (vertebrate or human); 2 semesters or 2-3 quarters. This course must have been completed within the last 7 years. Courses on human anatomy and physiology **MUST** be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

- **CHEMISTRY (1 course, 4 credits)**

Introductory Chemistry with laboratory, 1 semester. A more advanced chemistry course at upper division or graduate level with laboratory may also meet this requirement. Must be a course for science majors.

- **MATHEMATICS (1 course)**

Statistics - 3 or more units. Courses about research methods or tests and measurements will **NOT** meet this requirement.

- **ENGLISH/COMMUNICATION (2 courses)**

Composition - 3 credits

Speech Communication - 2 or 3 credits

Technical Writing (not required, but highly recommended) - 3 credits

- **OTHER REQUIRED COURSES**

At least 5 courses from this category are required, 3 credits each, chosen from but not limited to:

- economics
- history
- education
- humanities
- ethics
- literature
- fine arts
- philosophy
- foreign language
- **HIGHLY RECOMMENDED:**

Introductory Physics with Laboratory

Technical Writing

Computer Competence

Applicants must be competent in working with computers and be able to use word processing and spreadsheet software prior to entry into the program.

Occupational Therapy Preparation

Occupational Therapists are health practitioners with graduate-level degrees who help people across the lifespan participate in the things they want and need to do through the therapeutic use of everyday activities (occupations). Common occupational therapy interventions include helping children with disabilities to participate fully in school and social situations, helping people recovering from injury to regain skills, and providing supports for older adults experiencing physical and cognitive changes.

The curative nature of occupational therapy is extremely broad and requires practitioners with an interest in the complexity of humanity and the diversity of human occupation. They also need the ability to think critically and creatively and to be able to address occupational performance problems resulting from disease, trauma, and mental illness. To be prepared, a student must enter the profession with a foundation in the liberal arts in addition to biological, physical, and social sciences. For this reason, graduate-level programs in occupational therapy require specific coursework as a prerequisite to applying for admission to their programs. Graduate-level programs in occupational therapy do not require a specific undergraduate degree for admissions.

The Bachelor of Science in Health Science (BSHS) Pre-Occupational Therapy Concentration (4+3) is a degree program designed for students who are interested in a future career in the health profession. It provides a concentration area for students wishing to eventually apply to a graduate program in occupational therapy. One BSHS degree concentration area, Pre-Occupational Therapy, allows for the student to obtain a broad health science background by completing a BSHS degree. Once completed, the student is positioned with the necessary academic prerequisites to apply to many graduate-level occupational therapy programs (but students must carefully check prerequisite requirements for all programs they are interested in to assure fulfillment of each program's individual requirements). Admission and successful completion of this concentration area does not guarantee admission into the ISU Master of Occupational Therapy program.

The second BSHS professional concentration area, Pre-Occupational Therapy, Accelerated (3+3) (available to a limited number of students selected on a competitive basis), provides the opportunity for students to enter the graduate-level ISU Occupational Therapy program during their fourth undergraduate year and complete a pre-professional year in the program while undergraduates. During the first three years, students wishing to pursue this concentration area complete a course of study that meets the ISU General Education requirements and the OT program prerequisite course requirements. These students may apply

during the fall semester of their junior academic year for accelerated entry status. If accepted, they complete the pre-professional year within the OT program during their senior year. Upon successful completion of the pre-professional year, each student will receive a Bachelor of Science in Health Science degree and continue (after acceptance by the Graduate School) as a graduate student directly into the third semester (summer) of the Master of Occupational Therapy program with expected completion and awarding of the master's degree two years later.

Students not accepted into the accelerated concentration area may continue within the pre-OT curriculum, earn their bachelor's degrees, and apply to graduate-

level occupational therapy programs at ISU and elsewhere through the traditional graduate school processes.

Due to the competitive nature of admission to graduate-level occupational therapy programs, students are strongly encouraged to maintain a minimum grade point average of 3.0 throughout the BSHS curriculum.

Physical and Occupational Therapy Faculty (p. 342)

PTOT Courses (p. 632)

Physical and Occupational Therapy Faculty

Chair and Professor

Gee, Bryan M., Department Chair, Physical and Occupational Therapy; Director and Professor, Occupational Therapy. B.S. 2002, D'Youville College; M.S. 2002, OTD 2007, University of St. Augustine. (2007)

Associate Professors

Dye, Deanna,* Physical Therapy Program Director; Associate Professor, Physical and Occupational Therapy. B.S. 1990, Boston University; M.A. 2000, University of Wyoming; Ph.D. 2007, University of Idaho. (2002)

Devine, Nancy L.,* Associate Professor, Physical and Occupational Therapy. B.S. 1986, University of Vermont; M.S. 1993, Idaho State University. (1990)

Seiger, Cindy,* Associate Professor, Physical and Occupational Therapy. B.A. 1995, University of Utah; B.S. 1999, University of Ulster; M.S. 2002, Rocky Mountain University of Health Professions; Ph.D. 2009, Brigham Young University. (2006)

Assistant Professors

Foley, Michael, Assistant Professor, Physical and Occupational Therapy. B.S. 1985, North Adams State College; M.S. 1988, Ph.D. 1991, University of Southern Mississippi; M.A. 1995, College of St. Scholastica. (2015)

Papa, Evan, Physical Therapy Assistant Program Director. Assistant Professor, Physical and Occupational Therapy. B.S. 2005, M.A. 2007, California State University-Chico; D.P.T. 2011, Ph.D. 2014, University of Utah. (2017)

Clinical Associate Professors

Jackman, Trent D., Clinical Associate Professor, Physical and Occupational Therapy. M.P.T. 1997, D.P.T. 2009, Idaho State University. (2007)

Peterson, Theodore W., Clinical Assistant Professor, Physical and Occupational Therapy. B.S.O.T. 1980, University of North Dakota; M.B.A. 1992, Moorhead State University (MN); Dr.O.T. 2008, Nova Southeastern University. (2008)

Thompson, Kelly E., Clinical Assistant Professor, Physical and Occupational Therapy. B.S. 1990, University of New Hampshire; M.S. 2002, Belmont University; Ed.D. 2008, Idaho State University. (2002)

Clinical Assistant Professors

Gerber, L. Derek, Clinical Assistant Professor, Physical and Occupational Therapy. B.S. 1997, Brigham Young University; M.P.T. 1999, US Army-Baylor University; D.P.T. 2007, Baylor University; Ed.D. in progress, Idaho State University. (2013)

Hong, Lisa, Clinical Assistant Professor, Physical and Occupational Therapy. B.S. 1994, MOT 2007, Idaho State University. (2015)

Jepson, Tyler, Clinical Assistant Professor, Physical and Occupational Therapy. D.P.T. 2016, University of North Dakota. (2017)

Lloyd, Kimberly, Clinical Assistant Professor, Physical and Occupational Therapy. M.S. 2004, Idaho State University. (2011)

Ralphs, James E., Clinical Assistant Professor, Physical and Occupational Therapy. B.S. 1999, Utah State University; M.P.T. 2001, Old Dominion University. (2009)

Adjunct Faculty

Anderson, Curtis W.,* Professor, Biological Sciences; Adjunct Faculty, Physical and Occupational Therapy. B.S. 1989, Southwest Missouri State University; M.S. 1992, Ph.D. 1996, Northern Arizona University. (1998)

Groome, James R.,* Professor, Biological Sciences. B.A. 1981, Wake Forest University; Ph.D. 1988, University of New Hampshire. (2003)

Hoover, Rebecca, Director, Idaho Drug Information Center; Assistant Professor, Pharmacy Practice and Administrative Sciences. B.S. and B.A. 2007, University of Idaho; Pharm.D. 2012, Idaho State University; M.B.A. 2013, University of Nebraska Lincoln. (2013)

Meldrum, D. Jeffrey,* Professor, Biological Sciences. B.S. 1982, M.S. 1984, Brigham Young University; Ph.D. 1989, State University of New York at Stony Brook. (1993)

Emeriti

Creelman III, James (Jim) E.,* Department Chair and Associate Professor, Physical and Occupational Therapy. 1990-2015

Urfer, Alexander G.,* Professor, Physical and Occupational Therapy. 1977-2011

B.S. Health Science, Pre-Occupational Therapy Concentration

This concentration will prepare students to apply to a graduate program in occupational therapy. Graduate occupational therapy programs will accept a wide range of undergraduate degrees, but the B.S. in Health Science with the pre-occupational therapy concentration prepares the student for future practice in health care while efficiently including the prerequisite courses.

Core Requirements (20-24 credits)

Students pursuing a Bachelor of Science in Health Science must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and the requirements for one of the health science concentrations. All graduates of this program will earn a B.S. in Health Science, irrespective of which concentration is selected.

Required Courses (12 credits)

Code	Title	Credits
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
HE/HCA 2210	Medical Terminology and Communication	2
or HO 0106	Medical Terminology	

Professional Competencies (3 credits)

Code	Title	Credits
Select ONE:		
HCA 2215	Healthcare Leadership	3
HCA 4475	Health Law and Bioethics	3
HO 0107	Medical Law and Ethics	3
PHIL 2230	Medical Ethics	3

Health Care (3 credits)

Code	Title	Credits
Select ONE:		
ECON 4440	Economics of Health Care	3
HCA 1115	US Health System	3
HCA 3340	Healthcare Policy	3

Communication (2-3 credits)

Code	Title	Credits
Select ONE:		
ANTH 4409	Clinical Medical Anthropology	3
CMP 3308	Groups and Communication	3
CMP 4422	Conflict Management	3
COUN 3300	Interpersonal Skills in Health Professions	2
ENGL 3307	Professional and Technical Writing	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4425	Patient Education Skills	2

Diversity (0-3 credits)

Some courses in this group also fulfill one of the three previous competency areas. The credits for these courses are not counted twice if the course was chosen to complete an earlier core area.

Code	Title	Credits
Select ONE:		
ANTH 4407	Anthropology of Global Health	3
ANTH 4409	Clinical Medical Anthropology	3
COUN 3300	Interpersonal Skills in Health Professions	2
HCA 4475	Health Law and Bioethics	3
HE 4425	Patient Education Skills	2

Students must have an overall 2.0 Grade Point Average (GPA) in BS Health Science Core courses with no grades below a C-.

Concentration Requirements

Code	Title	Credits
ANTH 2238	Peoples and Cultures of the New World	3
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I Writing and Rhetoric I Plus	3-4
MATH 1153	Statistical Reasoning	3
PSYC 2225	Child Development	3
PSYC 3301	Abnormal Psychology	3
SOC 1101	Introduction to Sociology	3
5 additional courses (3 credits each) from economics, education, ethics, fine arts, foreign language, history, humanities, literature, and philosophy		15
Electives		18-22

Students must complete all Pre-Occupational Therapy Concentration courses with a grade of "C" or higher.

Highly Recommended Electives:

Code	Title	Credits
ENGL 3307	Professional and Technical Writing	3
PHYS 1111	General Physics I	4

& PHYS 1113

and General Physics I Laboratory

B.S. Health Science, Accelerated Pre-Occupational Therapy Concentration

This concentration area will prepare students to apply for early entrance into the ISU three-year Occupational Therapy Program. Students pursuing this concentration will complete General Education Objectives, the B.S. in Health Science Core courses, and the prerequisite courses for admission into the Occupational Therapy Program during the first three years and will apply for accelerated entry during the fall semester of the 3rd year. Students who are accepted for accelerated entry (competitive and limited number) will complete the first pre-professional year of the Occupational Therapy Program, while concurrently completing the 4th and final year of the B.S. in Health Science.

Students would then complete two more years within the graduate Master of Occupational Therapy Program. Students pursuing this concentration who are not accepted into the accelerated cohort may take additional courses during their 4th year to complete the B.S. in Health Science and apply to a graduate program in occupational therapy.

Core Requirements (20-24 credits)

Students pursuing a Bachelor of Science in Health Science must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and the requirements for one of the health science concentrations. All graduates of this program will earn a B.S. in Health Science, irrespective of which concentration is selected.

Required Courses (12 credits)

Code	Title	Credits
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	4
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
HE/HCA 2210	Medical Terminology and Communication	2
or HO 0106	Medical Terminology	

Professional Competencies (3 credits)

Code	Title	Credits
Select ONE:		
HCA 2215	Healthcare Leadership	3
HCA 4475	Health Law and Bioethics	3

HO 0107	Medical Law and Ethics	3
PHIL 2230	Medical Ethics	3

Health Care (3 credits)

Code	Title	Credits
Select ONE:		
ECON 4440	Economics of Health Care	3
HCA 1115	US Health System	3
HCA 3340	Healthcare Policy	3

Communication (2-3 credits)

Code	Title	Credits
Select ONE:		
ANTH 4409	Clinical Medical Anthropology	3
CMP 3308	Groups and Communication	3
CMP 4422	Conflict Management	3
COUN 3300	Interpersonal Skills in Health Professions	2
ENGL 3307	Professional and Technical Writing	3
HE 4410	Health Behavior Change Theory and Application	3
HE 4425	Patient Education Skills	2

Diversity (0-3 credits)

Some courses in this group also fulfill one of the three previous competency areas. The credits for these courses are not counted twice if the course was chosen to complete an earlier core area.

Code	Title	Credits
Select ONE:		
ANTH 4407	Anthropology of Global Health	3
ANTH 4409	Clinical Medical Anthropology	3
COUN 3300	Interpersonal Skills in Health Professions	2
HCA 4475	Health Law and Bioethics	3
HE 4425	Patient Education Skills	2

Students must have an overall 2.0 Grade Point Average (GPA) in BS Health Science Core courses with no grades below a C-.

Accelerated Occupational Therapy Concentration (46 cr) ¹

Code	Title	Credits
ANTH 2238	Peoples and Cultures of the New World (Satisfies General Education Objective 9)	3
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
(The two sets of courses above satisfy General Education Objective 5)		
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I (Partially satisfies General Education Objective 1) Writing and Rhetoric I Plus	3-4
PSYC 3301	Abnormal Psychology	3
PSYC 2225	Child Development	3
SOC 1101	Introduction to Sociology (Partially satisfies General Education Objective 6)	3
5 additional courses (3 credits each) from economics, education, ethics, fine arts, foreign language, history, humanities, literature, philosophy		15

**Students must complete all Accelerated Pre-Occupational
Therapy Concentration courses with a grade of "C" or higher.**

¹ Some Pre-Occupational Therapy Accelerated Concentration courses can also meet General Education Objectives.

**Apply to the Pre-Occupational Therapy Accelerated
Program during fall semester of junior year.**

Pre-Professional Year (if accepted into the program) (31 cr)

Code	Title	Credits
BIOL 4474	Human Anatomy Occupational and Physical Therapy	5
BIOL 4486	Human Systemic Physiology	5
PTOT 4412	Professional Communication	2
PTOT 4413	Occupational Therapy Profession	3
PTOT 4401	Clinical Kinesiology and Biomechanics	4
PTOT 4402	Clinical Neuroscience	5
PTOT 4421	Self-Exploration in Occupation	3
PTOT 4422	Occupational Performance	3
PTOT 4442	Occupational Performance Laboratory	1

College of Science and Engineering

Dean: Scott Snyder, Ph.D.

Associate Deans: Robert J. Fisher Jr; Ph.D., Mary Lou Dunzik-Gougar, Ph.D.

Mission

The College of Science and Engineering provides students with a comprehensive education to prepare for careers in mathematics, science, engineering, and related fields such as education and the health professions. This is accomplished not only through classroom training but especially through laboratory-, project-, and field-based instruction. Scholarly research is integral to our mission as a means of teaching students to be original and critical thinkers, as well as improving our world through discovery and invention.

College Structure

The College includes seven Departments: Biological Sciences, Chemistry, Geosciences, Mathematics, Civil & Environmental Engineering, Mechanical Engineering, and Physics & Nuclear Engineering & Electrical Engineering. The College also directs the Computer Science Program in the Department of Informatics and Computer Science. Collaboration between units is a characteristic feature of the college: students take courses from several departments; faculty co-advise students; and research teams cross disciplinary boundaries.

Degrees Offered

Each department offers a range of undergraduate degrees pertinent to its discipline. Depending upon the department, these may include the Bachelor of Science (B.S.) and Bachelor of Arts (B.A.) degrees as well as various minors, emphasis areas, and tracks. Each degree requires the student to take a unique set of classes within the discipline as well as classes from other departments within and beyond the College. The degrees are described in detail on the following pages and each department can provide additional information.

Advising

Students interested in a major or minor offered by the College of Science and Engineering are strongly encouraged, as soon as possible in their college career, to contact an advisor within the appropriate discipline(s). These advisors are intimately familiar with the degree requirements and can recommend the sequence of classes best suited for each student. They can also describe the culture, extracurricular activities, and job opportunities associated with their degree programs. Depending upon the department, this advisor may be the department chair, a program director, a specific faculty member within the department, or any other faculty member. To find the appropriate person, students should contact the department directly and ask for advising assistance.

ISU Central Academic Advising provides academic assistance to all students and is particularly useful for students who have not selected a major field of concentration.

College of Science and Engineering Programs

Program Description	Type	Degree
Biology, B.A. with Biology Education Concentration (p. 350)	Degree	B.A.
Biology, B.A. with Natural History Concentration (p. 351)	Degree	B.A.
Biology, B.S. with Biomedical Science Concentration (p. 351)	Degree	B.S.
Biology, B.S. with Ecology and Conservation Biology Concentration (p. 354)	Degree	B.S.
Biology, B.S. with Integrative Organismal Biology Concentration (p. 355)	Degree	B.S.
Biochemistry, B.S. (p. 358)	Degree	B.S.
Microbiology, B.S. (p. 357)	Degree	B.S.
Biology, Minor (p. 359)	Minor	
Microbiology, Minor (p. 360)	Minor	
Chemistry, B.A. (p. 363)	Degree	B.A.
Chemistry, B.S. (p. 363)	Degree	B.S.
Chemistry, Combined B.S./M.S. (p. 365)	Degree	B.S./M.S.
Chemistry, Minor (p. 366)	Minor	
Civil Engineering, B.S. (p. 375)	Degree	B.S.
Computer Science, B.S. (p. 371)	Degree	B.S.
Computer Science, Minor (p. 371)	Minor	
Earth and Environmental Systems, B.A. Environmental Systems Track (p. 382)	Degree	B.A.
Geology, B.A. (p. 381)	Degree	B.A.
Earth and Environmental Systems, B.S. Environmental Systems Track (p. 383)	Degree	B.S.
Earth and Environmental Systems, B.S. Geospatial Systems Track (p. 384)	Degree	B.S.
Geology, B.S. with Engineering Geology Emphasis (p. 381)	Degree	B.S.
Geology, B.S. (p. 381)	Degree	B.S.
Geology, Minor (p. 385)	Minor	
GeoTechnology, Minor (p. 385)	Minor	
Mathematics, A.S. (p. 389)	Degree	A.S.
Mathematics, B.S. (p. 388)	Degree	B.S.
Statistics, B.S. (p. 388)	Degree	B.S.
Applied Mathematics, Minor (p. 389)	Minor	
Mathematics, Minor (p. 389)	Minor	
Statistics, Minor (p. 390)	Minor	
Mechanical Engineering, B.S. (p. 378)	Degree	B.S.
Health Physics, A.S. (p. 398)	Degree	A.S.
Physics, A.S. (p. 395)	Degree	A.S.
Physics, B.A. (p. 395)	Degree	B.A.
Electrical Engineering Technology, B.S. (p. 399)	Degree	B.S.
Electrical Engineering, B.S. (p. 399)	Degree	B.S.
Health Physics, B.S. (p. 397)	Degree	B.S.
Nuclear Engineering, B.S. (p. 397)	Degree	B.S.

Physics, B.S. (p. 395)	Degree	B.S.
Physics, Minor (p. 396)	Minor	

Department of Biological Sciences

Program Description	Type	Degree
Biology, B.A. with Biology Education Concentration (p. 350)	Degree	B.A.
Biology, B.A. with Natural History Concentration (p. 351)	Degree	B.A.
Biology, B.S. with Biomedical Science Concentration (p. 351)	Degree	B.S.
Biology, B.S. with Ecology and Conservation Biology Concentration (p. 354)	Degree	B.S.
Biology, B.S. with Integrative Organismal Biology Concentration (p. 355)	Degree	B.S.
Microbiology, B.S. (p. 357)	Degree	B.S.
Biochemistry, B.S. (p. 358)	Degree	B.S.
Biology, Minor (p. 359)	Minor	
Microbiology, Minor (p. 360)	Minor	

Mission

We are a community that advances the understanding of the biological sciences through active discovery, learning, and engagement with society.

Department of Biological Sciences Faculty

Chair

Thomas, Michael A. * Professor, Biological Sciences. B.S. 1991, University of Nebraska; M.S. 1994, Kansas State University; Ph.D. 2000, Pennsylvania State University. (2003)

Assistant Chair

Loxterman, Janet L. * Associate Professor, Biological Sciences. B.S. 1992, Lehigh University; M.S. 1995, Virginia Commonwealth University; Ph.D. 2001, Idaho State University. (1996)

Professors

Anderson, Curtis W. * Professor, Biological Sciences; Adjunct Faculty, Physical and Occupational Therapy. B.S. 1989, Southwest Missouri State University; M.S. 1992, Ph.D. 1996, Northern Arizona University. (1998)

Austin, Mark C. * Professor, Biological Sciences. B.S. 1981, Pennsylvania State University; Ph.D. 1988, Washington State University. (2012)

Baxter, Colden * Professor, Biological Sciences. B.A. 1993, University of Oregon; M.S. 1997, University of Montana; Ph.D. 2002, Oregon State University. (2004)

Bearden, Shawn E. * Professor, Biological Sciences. B.S. 1994, University of Virginia; M.S. 1996, George Mason University; Ph.D. 2000, Florida State University. (2005)

Delehanty, David * Professor, Biological Sciences. B.S. 1985, University of Minnesota; M.S. 1991, University of North Dakota; Ph.D. 1997, University of Nevada, Reno. (2000)

Finney, Bruce P. * Professor, Biological Sciences. B.S. 1979, University of Montana; Ph.D. 1987, Oregon State University. (2008)

Our vision is to inspire our students to understand the living world and strive to better understand it.

Program Overview

We offer four undergraduate degrees: the B.A. in Biology, the B.S. in Biochemistry (a joint program with the Department of Chemistry), the B.S. in Biology, and the B.S. in Microbiology. Within the two Biology degrees, students select an area of concentration. Each undergraduate degree program is designed to prepare students with a distinct set of knowledge and skills that will serve as the foundation for a technical or scientific career, further graduate studies, professional schools in a variety of human and animal health fields, or as biology educators. Students should meet with an advisor early in their program to select the most appropriate major and concentration, and identify research or other experiences for professional development.

Faculty (p. 348)

BIOL Courses (p. 511)

Groome, James R. * Professor, Biological Sciences. B.A. 1981, Wake Forest University; Ph.D. 1988, University of New Hampshire. (2003)

Keeley, Ernest R. * Professor, Biological Sciences. B.S. 1990, M.S. 1993, Concordia University; Ph.D. 1998, University of British Columbia. (1999)

Magnuson, Timothy S. * Professor, Biological Sciences. B.S. 1987, University of Minnesota; M.S. 1991, Ph.D. 1996, University of Idaho. (2001)

Meldrum, D. Jeffrey * Professor, Biological Sciences. B.S. 1982, M.S. 1984, Brigham Young University; Ph.D. 1989, State University of New York at Stony Brook. (1993)

Peterson, Charles R. * Professor, Biological Sciences; Curator of Herpetology, Biological Sciences. B.S. 1972, M.S. 1974, University of Illinois, Urbana-Champaign; Ph.D. 1982, Washington State University. (1988)

Rose, W. Jack * Professor, Biological Sciences. B.S. 1975, M.S. 1979, Ohio State University; Ph.D. 1985, Oregon State University. (1987)

Sheridan, Peter P. * Professor, Biological Sciences. B.A. 1984, M.S. 1991, Rutgers University; Ph.D. 1996, University of Cincinnati. (2001)

Winston, Vern D. * Professor, Biological Sciences. B.S. 1970, Ph.D. 1976, - University of Nebraska. (1980)

Associate Professors

Aho, Ken A. * Associate Professor, Biological Sciences. B.S. 1996, Idaho State University; M.S. 2007, Ph.D. 2006, Montana State University. (2007)

Evilia, Caryn M. * Associate Professor, Chemistry and Biological Sciences. B.S. 1991, University of Massachusetts; Ph.D. 1998, University of Pennsylvania. (2006)

Hill, Jeffrey Patten,* Associate Professor, Biological Sciences. B.S. 1982, State University of New York; M.S. 1984, University of California, Davis; Ph.D. 1989, University of California, Riverside. (1991)

Lohse, Kathleen,* Associate Professor, Biological Sciences. B.S. 1993, B.A. 1993, Cornell University; Ph.D. 2002, University of California, Berkeley. (2010)

Pilarski, Jason Q.,* Associate Professor, Biological Sciences and Dental Sciences. B.S. 1993, Indiana University; M.S. 2000, Indiana University; Ph.D. 2006, Northern Arizona University. (2011)

Reinhardt, Keith,* Associate Professor, Biological Sciences. B.S. 1994, College of William & Mary; M.S. 2001, University of Virginia; Ph.D. 2009, Wake Forest University. (2012)

Assistant Professors

Hale, Rebecca L.,* Research Assistant Professor, Biological Sciences. B.A. 2005, M.A. 2005, Hampshire College; Ph.D. 2013, Arizona State University. (2015)

Ledbetter, Rhesa,* Visiting Assistant Professor, Biological Sciences. B.S. 2005, Idaho State University; M.S. 2007, Idaho State University; Ph.D. 2018, Utah State University. (2018)

Martin, Julia,* Assistant Professor, Biological Sciences. B.S. 2004, M.S. 2006, University of California, Northridge; Ph.D. 2013, University of Illinois at Urbana-Champaign. (2017)

Pradhan, Devaleena,* Assistant Professor, Biological Sciences. B.S. 2004, University of British Columbia; M.S. 2012, Georgia State University; Ph.D. 2014, Georgia State University. (2018)

Serve, Kinta,* Assistant Professor, Biological Sciences. B.S. 2005, Colorado Mesa University; M.S. 2010, Washington State University; D.A. 2013, Idaho State University. (2018)

You, Yaqi,* Visiting Assistant Professor, Biological Sciences. B.S. 2005, Nanjing University of Technology, China; M.S. 2006, Johns Hopkins University; Ph.D. 2012, Johns Hopkins University (2018)

Senior Lecturers

Black, Catherine, Senior Lecturer, Biological Sciences. B.A. 1991, University of Utah; M.S. 1996, Idaho State University. (1998)

Frank, Barbara, Associate Lecturer/Advisor, Biological Sciences. B.S. 1984, University of California, Davis; Ph.D. 1989, Washington State University. (1999)

Associate Lecturer

Shurley, Jack, Associate Lecturer, Biological Sciences. B.S. 2001, M.S. 2003, Ph.D. 2007, Idaho State University. (2006)

Assistant Lecturers

Abbruzzese, Jennifer, Assistant Lecturer, Biological Sciences. B.A. 1996, M.S. 2000, Utah State University. (2012)

Curran, Shannon, Assistant Lecturer, Biological Sciences. B.S. 2015, University of California, Davis; M.S. 2017 University of Colorado, Denver. (2017)

Fultz, Jessica, Assistant Lecturer, Biological Sciences. B.S. 2001, Montana State University; M.S. 2005, Montana State University. (2008)

Rhett, Katrina, Assistant Lecturer, Biological Sciences. B.S. 2007, University of Minnesota; M.S. 2014, University of Minnesota. (2014)

Stewart, Ian, Assistant Lecturer, Biological Sciences. B.S. 2014, University of Colorado, Denver; M.S. 2018, University of Colorado, Denver. (2018)

Emeriti

Akersten, William A., Associate Professor, Biological Sciences and Geosciences; Curator, Vertebrate Paleontology, Idaho Museum of Natural History. 1985-2009

Anderson, Robert C., Professor, Zoology. 1969-2007

Bowmer, Richard G., Professor, Botany. 1961-1997

Bowyer, R. Terry, Professor, Biological Sciences. 2004-2015

Farrell, Larry D.,* Professor, Microbiology. 1972-2008

Griffith, John S., Professor, Biology. 1977-1999

Holte, Karl E., Professor, Botany; Curator, Museum. 1965-1997

House, Edwin W., Chief Research Officer; Professor, Physiology. 1966-2004

Inouye, Richard S., Professor, Ecology. 1987-2010

Linder, Allan, Professor, Biological Sciences. 1963-1988

McCune, Joan H., Professor, Microbiology. 1980-2001

McCune, Ronald W., Professor, Biochemistry. 1970-2004

Minshall, G. Wayne, Professor, Zoology and Ecology. 1966-2003

Rodnick, Kenneth J., Professor, Biological Sciences. 1993-2018

Rose, Fred L., Professor, Biological Sciences. 1969-2000

Scalarone, Gene M., Professor, Biological Sciences. 1980-2017

Seeley, Rodney R., Professor, Physiology. 1973-2008

Smith, Rosemary J., Professor, Biological Sciences. 1999-2018

Spall, Richard D., University Ombudsman; Professor, Pathology. 1981-2003

Spiegel, Kathleen, Clinical Professor, Clinical Laboratory Science. 1991-2007

Stephens, Trent D., Professor, Biology. 1981-2011

Streubel, Donald P., Professor, Biology. 1974-1999

Trost, Charles H., Professor, Biological Sciences; Curator, Museum. 1968-2000

Williams, Charles F. (Rick), Associate Professor, Biological Sciences. 1999-2018

Bachelor of Arts in Biology with Biology Education Concentration

The B.A. in Biology with a Concentration in Biology Education is designed for students who want to pursue teacher certification in biology. The B.A. has fewer courses in Chemistry, Physics, and Mathematics than the B.S. in Biology, and more upper division electives, providing students with greater latitude to design their own program of study. Students who pursue the B.A. in Biology *will not meet the minimum requirements* for admission to most graduate research programs in biological sciences or professional programs in the health sciences.

The B.A. degree requires that students complete all of the General Education Objectives (p. 57) described in the Academic Information section of this catalog. Students must also satisfy the core requirements listed below and the requirements of the Biology Education Concentration. All graduates of this degree program will earn a B.A. in Biology regardless of the concentration selected.

Required Core Courses:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 3358	Genetics	3
BIOL 4417	Organic Evolution	3
BIOL 4491 & BIOL 4492	Seminar and Seminar	2

Required Supporting Science Courses:

Code	Title	Credits
MATH 1160 or MATH 1153	Survey of Calculus Statistical Reasoning	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4

Concentration in Biology Education

(Idaho teacher preparation requires 45 credits of Biology in the Single Subject Major)

Students in the B.A. in Biology program with the Concentration in Biology Education may complete the requirements for teacher certification by completing the Professional Education Core and other required courses in the College of Education. Such students must apply for admission to the Teacher Education program (see the College of Education section of the catalog for details).

In addition to completing the Required Core courses and the General Education Requirements (p. 57), students earning a B.A. in Biology in the Biological Education concentration must complete the following requirements.

Required Courses:

Code	Title	Credits
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 4413	Biology Teaching Methods	3

Elective Courses:

Code	Title	Credits
2 courses from Animal Biology list below		6-8
2 courses from Plant Biology list below		6-8
Biology Electives (any Biology course, to meet 45 credits minimum)		2-4

Suggested Animal Biology Courses:

Code	Title	Credits
BIOL 3304 & 3304L	Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab	5
BIOL 3310 & 3310L	Invertebrate Zoology and Invertebrate Zoology Lab	4
BIOL 4423	General Parasitology	3
BIOL 4426 & 4426L	Herpetology and Herpetology Lab	4
BIOL 4427 & 4427L	Ichthyology and Ichthyology Lab	4
BIOL 4431 & 4431L	General Entomology and General Entomology Lab	4
BIOL 4438	Ornithology	4
BIOL 4441 & 4441L	Mammalogy and Mammalogy Lab	4
BIOL 4459 & 4459L	Fish Ecology and Fish Ecology Laboratory	4
BIOL 4462 & 4462L	Freshwater Ecology and Freshwater Ecology Lab	4
BIOL 4495	Animal Behavior	4

Suggested Plant Biology Courses:

Code	Title	Credits
BIOL 2213	Fall Flora	2
BIOL 2214	Spring Flora	2
BIOL 4412 & 4412L	Systematic Botany and Systematic Botany Lab	4
BIOL 4404	Plant Physiology	3
BIOL 4404L	Plant Physiology Lab ¹	1
BIOL 4405 & 4405L	Plant Form and Function and Plant Form and Function Lab	4
BIOL 4408	Plant Ecology	3

BIOL 4408L	Plant Ecology Lab ¹	1	¹ These are optional labs.
BIOL 4442	Plant Animal Interactions	3	

Bachelor of Arts in Biology with Natural History Concentration

The B.A. in Biology with Natural History Concentration is designed for students who want to pursue a career where skills and knowledge of natural history (outdoor or environmental education, interpretation, identification, field studies) are desirable. The B.A. has fewer courses in Chemistry, Physics, and Mathematics than the B.S. in Biology, and more upper division electives, providing students with greater latitude to design their own program of study. Students who pursue the B.A. in Biology *will not meet the minimum requirements* for admission to most graduate research programs in biological sciences or professional programs in the health sciences.

The B.A. degree requires that students complete all of the General Education Objectives (p. 57) described in the Academic Information section of this catalog. Students must also satisfy the core requirements listed below and the requirements of the Natural History Concentration. All graduates of this degree program will earn a B.A. in Biology regardless of the concentration selected.

Required Core Courses:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 3358	Genetics	3
BIOL 4417	Organic Evolution	3
BIOL 4491 & BIOL 4492	Seminar and Seminar	2

Required Supporting Science Courses:

Code	Title	Credits
MATH 1160 or MATH 1153	Survey of Calculus Statistical Reasoning	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4

Concentration in Natural History

Students in the B.A. in Biology program with the Concentration in Natural History should meet with an advisor to select the most appropriate courses for their interests. Students in this program may consider a Minor in another program, such as Outdoor Education (see the College of Education, Department of Sport Science and Physical Education (p. 251), for details) or Geology (see College of Science and Engineering, Department of Geosciences (p. 379), for details).

In addition to completing the Required Core courses and the General Education Requirements (p. 57), students earning a B.A. in Biology in the Natural History concentration must complete the following requirements.

Required Electives

Diversity, Ecology, and Evolution Courses:¹

Code	Title	Credits
At least 2 courses with Animal emphasis		7-8
At least 2 courses with Plant emphasis		7-8

¹ See the Suggested Animal and Plant Biology course lists in the Biology Education Concentration above.

Biology Electives (any Biology course):

Code	Title	Credits
At least 3 courses in Biology, excluding BIOL 1100.		8-10

Suggested Supporting Courses from Other Departments:

Code	Title	Credits
GEOL 1100	The Dynamic Earth	3
GEOL 1101	Physical Geology	3
HIST/MUSE 4411	Introduction to Museum Studies	2
PE 3386	Outdoor Leadership	3
PE 4440	Survey of Outdoor Education Literature	3
PE 4445	Methods of Teaching Outdoor Activities and Practicum	3-4

B.S. Biology with Concentration in Biomedical Sciences

Bachelor of Science in Biology

The purpose of the B.S. in Biology is to serve students who have a broad interest in the biological sciences and who seek substantial flexibility in the

development of their own programs. This degree fosters, in students, knowledge and understanding of major concepts in the discipline as well as the processes of scientific investigation. Students served by this Major are those interested in preparing for a career in biology, ecology, conservation or natural history,

entering a health-related professional program (i.e., physician assistant, occupational therapist, medical doctor, etc.), certifying to teach in public schools, or developing a variety of laboratory skills. The B.S. in Biology requires significant exposure to biological sciences, as well as concepts in math and the physical sciences, while providing a large number of electives. The consequence is an understanding of the biological sciences and the flexibility and opportunity to specialize in areas of interest to students. Up to 8 credits of Independent Problems and/or Mentored Research (AMOEBA) can be applied to the student's undergraduate degree.

Core Requirements

Students pursuing the B.S. degree must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and the requirements of one of the concentrations in biology. All graduates of this degree program will earn a B.S. in Biology, regardless of the concentration selected.

Required Courses:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory ¹	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 3316	Biometry Laboratory	1
BIOL 3358	Genetics	3
BIOL 4417	Organic Evolution	3
BIOL 4491 & BIOL 4492	Seminar and Seminar	2
MATH 1160	Survey of Calculus	3
MATH 3350	Statistical Methods	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	4
Select two of the following:		7
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory	
BIOL 4432	Biochemistry	
General Education		24
Total Credits		79

¹ BIOL 2235, BIOL 2235L, General Microbiology and Lab, may substitute for BIOL 2206, BIOL 2207 in the ECB and IOB concentrations, but not in the BMS concentration. Students in the BMS concentration must take BIOL 2206, BIOL 2207.

Concentration in Biomedical Sciences (BMS)

The concentration in Biomedical Sciences (BMS) focuses on developing an understanding of the key disciplines that serve as the foundation for biomedical sciences. This includes substantial coursework in chemistry and physics, as well as electives in mammalian anatomy and physiology, development, and neurobiology. The BMS concentration prepares students for graduate studies in biomedical research as well as admission to medical, dental, and veterinary and other health professional programs (pharmacy, physician assistant, optometry, podiatry).

In addition to completing the core requirements, students in the BMS concentration have the opportunity to select from a broad range of physiology, anatomy, and biomedical courses.

Biomedical Sciences Requirements

Anatomy and Physiology:

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
Choose one of the following:		4-5
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	
OR		
BIOL 3304 & 3304L	Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab	

BIOL 2280 or BIOL 4480	Mentored Research Alliance Mentored Research Alliance	2
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¹ BIOL 3324 Developmental Biology and BIOL 4432 Biochemistry are strongly recommended as these are often required by medical, dental, and veterinary schools.

² Indicates limited enrollment for undergraduates.

Upper Division BMS Electives:

Select a minimum of 12 credits from the following¹:

Code	Title	Credits
BIOL 3305	Introduction to Pathobiology	3
BIOL 3324 & 3324L	Developmental Biology and Developmental Biology Lab ¹	4
BIOL 4400 & 4400L	Oral Histology and Embryology and Oral History and Embryology Lab ²	3
BIOL 4419 & 4419L	Mammalian Histology and Mammalian Histology Lab ²	4
BIOL 4423	General Parasitology	3
BIOL 4432	Biochemistry ¹	3
BIOL 4437	Experimental Biochemistry	1
BIOL 4433 & 4433L	Microbial Physiology and Microbial Physiology Laboratory	4
BIOL 4440 & 4440L	Human Gross Anatomy and Human Gross Anatomy Lab ²	4
BIOL 4443	Endocrinology	3
BIOL 4444 & 4444L	Cell and Molecular Biology and Cell and Molecular Biology Lab	4
BIOL 4449	Human Physiology I ²	4
BIOL 4450 & 4450L	Head and Neck Anatomy and Head and Neck Anatomy Lab ²	3
BIOL 4451 & 4451L	Immunology and Immunology Laboratory	4
BIOL 4453	Foundations in Neuroscience	3
BIOL 4455	Pathogenic Microbiology	3
BIOL 4456	Human Physiology II ²	4
BIOL 4463 & 4463L	Human Pathophysiology and Human Pathophysiology Lab ²	4
BIOL 4466	Medical Mycology	3
BIOL 4470	Cross-Sectional Anatomy ²	2
BIOL 4475	General Virology	3
BIOL 4486 & 4486L	Human Systemic Physiology and Human Systemic Physiology Lab ²	5
BIOL 4481 or BIOL 4482	Independent Problems Independent Problems	1-4

Microbiology:

Code	Title	Credits
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
or BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	

Total BMS Concentration Requirements:

Code	Title	Credits
	Anatomy and Physiology	5-8
	BMS Electives	12
	Microbiology	4
	Minimum Total	21-24
	Core Requirements	79-80
	Total	100-104

B.S. Biology with Concentration in Ecology and Conservation Biology

Bachelor of Science in Biology

The purpose of the B.S. in Biology is to serve students who have a broad interest in the biological sciences and who seek substantial flexibility in the development of their own programs. This degree fosters, in students, knowledge and understanding of major concepts in the discipline as well as the processes of scientific investigation. Students served by this Major are those interested in preparing for a career in biology, ecology, conservation or natural history, entering a health-related professional program (i.e., physician assistant, occupational therapist, medical doctor, etc.), certifying to teach in public schools, or developing a variety of laboratory skills. The B.S. in Biology requires significant exposure to biological sciences, as well as concepts in math and the physical sciences, while providing a large number of electives. The consequence is an understanding of the biological sciences and the flexibility and opportunity to specialize in areas of interest to students. Up to 8 credits of Independent Problems and/or Mentored Research (AMOEBA) can be applied to the student's undergraduate degree.

Core Requirements

Students pursuing the B.S. degree must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and the requirements of one of the concentrations in biology. All graduates of this degree program will earn a B.S. in Biology, regardless of the concentration selected.

Required Courses:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory ¹	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 3316	Biometry Laboratory	1
BIOL 3358	Genetics	3
BIOL 4417	Organic Evolution	3
BIOL 4491 & BIOL 4492	Seminar and Seminar	2
MATH 1160	Survey of Calculus	3
MATH 3350	Statistical Methods	3

CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	4
	Select two of the following:	7
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory	
BIOL 4432	Biochemistry	
	General Education	24
	Total Credits	79

¹ BIOL 2235, BIOL 2235L, General Microbiology and Lab, may substitute for BIOL 2206, BIOL 2207 in the ECB and IOB concentrations, but not in the BMS concentration. Students in the BMS concentration must take BIOL 2206, BIOL 2207.

Concentration in Ecology and Conservation Biology (ECB)

The concentration in Ecology and Conservation Biology (ECB) is for students who seek to understand the fundamental principles of ecology and their applications, with an emphasis on field studies. The ECB concentration prepares students for graduate studies in ecology or applied ecology, and careers in land and resource management (e.g., Bureau of Land Management, US Forest Service, Idaho Department of Fish and Game), environmental studies (e.g., Environmental Protection Agency, US Geological Survey, Department of Environmental Quality), and positions with conservation organizations (e.g., The Nature Conservancy, US Fish and Wildlife Service, World Wildlife Federation). The concentration allows students to select a variety of courses in plant and animal diversity, field biology, and evolution.

In addition to completing the core requirements, students in the ECB concentration have the opportunity to select from a broad range of ecology, diversity, and evolution courses. The concentration requires taxonomic breadth including at least 6 credits of plant biology and 6 credits of animal biology emphasis courses.

Ecology and Conservation Biology Concentration Requirements

Field Research:

Code	Title	Credits
BIOL 4489 or BIOL 4493	Field Ecology Senior Thesis	4

Ecology Courses:

Select a minimum of 8 credits from the following:

Code	Title	Credits
BIOL 1192	Careers in Ecology and Conservation Biology	1
BIOL 3337	Conservation Biology	3
BIOL 4408 & 4408L	Plant Ecology and Plant Ecology Lab	4
BIOL 4416 & 4416L	Population Ecology and Population Ecology Lab	4
BIOL 4418	Ecological Topics	1
BIOL 4442	Plant Animal Interactions	3
BIOL 4459 & 4459L	Fish Ecology and Fish Ecology Laboratory	4
BIOL 4462 & 4462L	Freshwater Ecology and Freshwater Ecology Lab	4
BIOL/GEOL 4490	Ecosystem Ecology and Global Changes	4

Diversity or Evolutionary Courses:

Select a minimum of 8 credits from the following:

Code	Title	Credits
BIOL 2213	Fall Flora	2
BIOL 2214	Spring Flora	2
BIOL 3310 & 3310L	Invertebrate Zoology and Invertebrate Zoology Lab	4

BIOL 4406 & 4406L	Plant Diversity and Evolution and Plant Diversity and Evolution Lab	4
BIOL 4412 & 4412L	Systematic Botany and Systematic Botany Lab	4
BIOL 4423	General Parasitology	3
BIOL 4426 & 4426L	Herpetology and Herpetology Lab	4
BIOL 4427 & 4427L	Ichthyology and Ichthyology Lab	4
BIOL 4431 & 4431L	General Entomology and General Entomology Lab	4
BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	4
BIOL 4438	Ornithology	4
BIOL 4441 & 4441L	Mammalogy and Mammalogy Lab	4
BIOL 4495	Animal Behavior	4

Biology Electives:

Students must fulfill a minimum of an additional 3 credits of biology electives for which they can select any course in Biology (except BIOL 1100), including Independent Problems (BIOL 4481 and/or BIOL 4482) and AMOEBA (Mentored Research Alliance, BIOL 2280 and/or BIOL 4480).

Total ECB Concentration Requirements

Code	Title	Credits
	Field Research Experience	4
	Ecology Courses	8
	Diversity or Evolutionary Courses	8
	Biology Electives	3
	Minimum Total	23
	Core Requirements	79-80
	Total	102-103

B.S. Biology with Concentration in Integrative Organismal Biology

The purpose of the B.S. in Biology is to serve students who have a broad interest in the biological sciences and who seek substantial flexibility in the development of their own programs. This degree fosters, in students, knowledge and understanding of major concepts in the discipline as well as the processes of scientific investigation. Students served by this Major are those interested in preparing for a career in biology, ecology, conservation or natural history, entering a health-related professional program (i.e., physician assistant, occupational therapist, medical doctor, etc.), certifying to teach in public schools, or developing a variety of laboratory skills. The B.S. in Biology requires significant exposure to biological sciences, as well as concepts in math and the physical sciences, while providing a large number of electives. The consequence is an understanding of the biological sciences and the flexibility and opportunity to specialize in areas of interest to students. Up to 8 credits of Independent Problems and/or Mentored Research (AMOEBA) can be applied to the student's undergraduate degree.

Core Requirements

Students pursuing the B.S. degree must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and the requirements of one of the concentrations in biology. All graduates of this degree program will earn a B.S. in Biology, regardless of the concentration selected.

Required Courses:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4

BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory ¹	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 3316	Biometry Laboratory	1
BIOL 3358	Genetics	3
BIOL 4417	Organic Evolution	3
BIOL 4491 & BIOL 4492	Seminar and Seminar	2
MATH 1160	Survey of Calculus	3
MATH 3350	Statistical Methods	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	4
Select two of the following:		7
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory	
BIOL 4432	Biochemistry	
General Education		24
Total Credits		79

¹ BIOL 2235, BIOL 2235L, General Microbiology and Lab, may substitute for BIOL 2206, BIOL 2207 in the ECB and IOB concentrations, but not in the BMS concentration. Students in the BMS concentration must take BIOL 2206, BIOL 2207.

Concentration in Integrative Organismal Biology (IOB)

The concentration in Integrative Organismal Biology (IOB) focuses on understanding of the key disciplines that serve as the foundation of organismal biology: anatomy, physiology, behavior, and diversity, and electives in a variety of integrative biology courses. Students may select either an animal or a plant focus, or a combination. The IOB concentration prepares students for graduate studies in various fields of organismal biology (physiology, botany, zoology, evolution, ecology, behavior) and for professional schools (veterinary or OT/PT).

In addition to completing the core requirements, students in the IOB concentration have the opportunity to select from a broad range of physiology, anatomy, and diversity courses.

Anatomy, Physiology, and Development Courses:

Select a minimum of 8 credits from the following:

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3304 & 3304L	Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab	5
BIOL 3324 & 3324L	Developmental Biology and Developmental Biology Lab	4
BIOL 4404 & 4404L	Plant Physiology and Plant Physiology Lab	4
BIOL 4405 & 4405L	Plant Form and Function and Plant Form and Function Lab	4
BIOL 4419 & 4419L	Mammalian Histology and Mammalian Histology Lab	4
BIOL 4432	Biochemistry	3
BIOL 4443	Endocrinology	3
BIOL 4464	Lectures in Human Physiology	4

Diversity or Evolutionary Courses:

Select a minimum of 8 credits from the following:

Code	Title	Credits
BIOL 2213	Fall Flora	2
BIOL 2214	Spring Flora	2
BIOL 3310 & 3310L	Invertebrate Zoology and Invertebrate Zoology Lab	4
BIOL 4406 & 4406L	Plant Diversity and Evolution and Plant Diversity and Evolution Lab	4
BIOL 4412 & 4412L	Systematic Botany and Systematic Botany Lab	4
BIOL 4423	General Parasitology	3
BIOL 4426 & 4426L	Herpetology and Herpetology Lab	4
BIOL 4427 & 4427L	Ichthyology and Ichthyology Lab	4
BIOL 4431 & 4431L	General Entomology and General Entomology Lab	4
BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	4
BIOL 4438	Ornithology	4
BIOL 4441 & 4441L	Mammalogy and Mammalogy Lab	4
BIOL 4442	Plant Animal Interactions	3
BIOL 4495	Animal Behavior	4

Biology Electives:

Students must fulfill a minimum of an additional 8 credits of biology electives for which they can select any course in Biology, (except BIOL 1100 ,) including Independent Problems (BIOL 4481 and/or BIOL 4482) and AMOEBA (Mentored Research Alliance, BIOL 2280 and/or BIOL 4480).

Total IOB Concentration Requirements

Code	Title	Credits
	Anatomy, Physiology, or Development courses	8
	Diversity or Evolutionary Courses	8

B.S. Microbiology

The purpose of the BS in Microbiology is to serve students who seek to develop a strong background in microbiology and molecular biology, with applications for biotechnology, medical, and environmental biology. Majors gain experiences that prepare them to participate in the development of research plans and their implementation, and to be competent to carry out standard microbiological and molecular biology techniques in the laboratory. The BS in Microbiology prepares students to be competitive for positions in research, graduate schools, health professional schools, and in the biotechnology industry.

Core Requirements

Students pursuing a Bachelor of Science degree must satisfy the General Education Objectives (p. 57) (a minimum of 36 credits). Students must also satisfy the core requirements listed below and at least **20** credits of elective courses in Microbiology. (Need 36 upper division course hours.) In order to make timely progress toward the degree, it is imperative that the student work closely with a major advisor.

Required Courses in Biological Sciences:

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	4
BIOL 3358	Genetics	3
Chose either:		3-6
BIOL 4432	Biochemistry	
OR		
BIOL/CHEM 4445	Biochemistry I	
AND		
BIOL/CHEM 4447	Biochemistry II	
BIOL 4433 & 4433L	Microbial Physiology and Microbial Physiology Laboratory	4
BIOL 4444 & 4444L	Cell and Molecular Biology and Cell and Molecular Biology Lab	4
BIOL 4494	Seminar in Microbiology	1
Total Credits		27-30

Required Courses in Chemistry, Mathematics¹, and Physics:

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5

Biology Electives	8
Minimum Total	24
Core Requirements	79-80
Total	103-104

CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
MATH 1160 or MATH 1170	Survey of Calculus Calculus I	3-4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	4
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory	4
Total Credits		32-33

Microbiology Electives (20 credits)

Code	Title	Credits
BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	4
BIOL 4437/CHEM 4438	Experimental Biochemistry	1
BIOL 4451 & 4451L	Immunology and Immunology Laboratory	4
BIOL 4454	Advanced Immunology	3
BIOL 4455 & 4455L	Pathogenic Microbiology and Pathogenic Microbiology Laboratory	5
BIOL 4461	Advanced Genetics	3
BIOL 4466	Medical Mycology	3
BIOL 4469	Special Topics in Microbiology	1-4
BIOL 4473 & 4473L	Applied and Environmental Microbiology and Applied Environmental Microbiology Lab	4
BIOL 4475	General Virology	3
BIOL 4477 or BIOL 4478	Bacterial Virology Laboratory Animal Virology Laboratory	1
BIOL 4498	Seminar in Biochemistry	1

Additional Biological Sciences courses (must take at least 8 credits)

These courses are chosen to enhance student background in a particular area of interest. Suggested courses could include (but are not limited to):

Code	Title	Credits
BIOL 2209	General Ecology	4
BIOL 2280 or BIOL 4480	Mentored Research Alliance Mentored Research Alliance	2
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 4417	Organic Evolution	3

BIOL 4481	Independent Problems	1-4
	and/or	
BIOL 4482	Independent Problems	1-4
BIOL 1100, BIOL 1100L, BIOL 2221 and BIOL 2221L may not be used as electives for the B.S. in Microbiology.		

(Courses not used to fulfill the microbiology electives could be used to satisfy this requirement.)

¹ Additional courses in Mathematics that are highly recommended for students planning to attend graduate school are MATH 1175 (prerequisite is MATH 1170), MATH 2240, MATH 2275, or MATH 3360.

B.S. Biochemistry

(This degree appears in the Biological Sciences and Chemistry sections of the catalog.)

Two departments - Biological Sciences and Chemistry - jointly offer the B.S. degree in Biochemistry. The curriculum is designed to prepare the student for graduate work in biochemistry and related fields, as well as for admission to medical, dental, or other health professional schools. The graduate is also prepared to go directly into research or industrial positions which require preparation only at the B.S. level.

The purpose of the B.S. in Biochemistry is to serve students who seek to develop a strong background in biochemistry and the supporting sciences of biology, chemistry, and physics. Majors also gain experience in the broad areas of biochemistry, molecular biology, biotechnology, and medical and/or ecological applications of each. Majors gain experience that will prepare them to participate in research development, planning and implementation, and to be competent to carry out standard biochemical and molecular biology techniques in the laboratory. The B.S. in Biochemistry prepares students to be competitive for positions in research, graduate schools, health profession schools, and in the biotechnology industry.

Core Requirements ¹

Students pursuing a Bachelor of Science must satisfy all of the General Education Objectives (a minimum of 24 credits; Objectives 3 and 5 are satisfied in the core--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and at least **20** credits of elective courses selected from Biological Sciences, Chemistry, Mathematics, and Biomedical and Pharmaceutical Sciences. In order to make timely progress toward the degree, it is imperative that the student work closely with a major advisor. All graduates of this program will earn a B.S. in Biochemistry.

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab ²	4
BIOL 3358	Genetics	3
BIOL 4437/CHEM 4438	Experimental Biochemistry	1

BIOL 4444 & 4444L	Cell and Molecular Biology and Cell and Molecular Biology Lab	4
BIOL/CHEM 4445	Biochemistry I	3
BIOL/CHEM 4447	Biochemistry II	3
BIOL/CHEM 4498	Seminar in Biochemistry	1
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab (Partially satisfies General Education Objective 5)	4
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 3341	Topics in Physical Chemistry I ³	3
CHEM 3342	Topics in Physical Chemistry II ³	3
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory (Partially satisfies General Education Objective 5) ⁴	4
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory (Partially satisfies General Education Objective 5) ⁴	4
Additional General Education Requirements		24
An additional 6 credits from any college or department		6
Total Credits		100

¹ Students must pass core classes with a grade of C- or better.

² May elect to take BIOL 2206 and BIOL 2207 instead of BIOL 2235 and BIOL 2235L.

³ May elect to take CHEM 3351 and CHEM 3352 instead of CHEM 3341 and CHEM 3342.

⁴ PHYS 2211, PHYS 2212, PHYS 2213, and PHYS 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Electives

Students must take a minimum of **20** elective credits from the list below, with at least **8** credits in Biological Sciences (BIOL), **8** credits in Chemistry (CHEM), and **4** additional credits in either Biological Sciences (BIOL), Chemistry (CHEM), Mathematics (MATH), or Biomedical and Pharmaceutical Sciences (PSCI).

Courses in Biological Sciences:

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3304 & 3304L	Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab	5
BIOL 3324 & 3324L	Developmental Biology and Developmental Biology Lab	4
BIOL 4404 & 4404L	Plant Physiology and Plant Physiology Lab	4
BIOL 4417	Organic Evolution	3
BIOL 4433 & 4433L	Microbial Physiology and Microbial Physiology Laboratory	4
BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	4
BIOL 4443	Endocrinology	3
BIOL 4449	Human Physiology I	4
BIOL 4451 & 4451L	Immunology and Immunology Laboratory	4
BIOL 4453	Foundations in Neuroscience	3
BIOL 4456	Human Physiology II	4
BIOL 4461	Advanced Genetics	3
BIOL 4473 & 4473L	Applied and Environmental Microbiology and Applied Environmental Microbiology Lab	4
BIOL 4475	General Virology	3
BIOL 4477 or BIOL 4478	Bacterial Virology Laboratory Animal Virology Laboratory	1

BIOL 4481 & BIOL 4482	Independent Problems and Independent Problems	max 2
BIOL 4494	Seminar in Microbiology	1

Courses in Chemistry:

Code	Title	Credits
CHEM 2211	Inorganic Chemistry I	3
CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 3311 & CHEM 3312	Introduction to Research and Introduction to Research	max 2
CHEM 3331 & CHEM 3334	Instrumental Analysis and Instrumental Analysis Laboratory	4
CHEM 3365 & CHEM 3366	Synthetic Methods and Synthetic Methods Laboratory	4
CHEM 4407	Inorganic Chemistry II ¹	2
CHEM 4433 & CHEM 4437	Environmental Chemistry and Environmental Chemistry Laboratory	3
CHEM 4451	Physical Chemistry Laboratory I ²	1
CHEM 4452	Physical Chemistry Laboratory II ³	1
CHEM 4481 & CHEM 4482	Independent Problems in Chemistry and Independent Problems in Chemistry	max 2
CHEM 4485	Senior Research	max 1
CHEM 4491	Seminar	1

Courses in Mathematics:

Code	Title	Credits
MATH 2240	Linear Algebra	3
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3

Courses in Biomedical and Pharmaceutical Sciences:

Code	Title	Credits
PSCI 2205	Drugs in Society	2
PSCI 3301	Introduction to Pharmacology	3
PSCI 3308	Drug Discovery	2
PSCI 3353	Introduction to Methods in Pharmaceutical Sciences	2
PSCI 4407	Pharmacogenomics	2
PSCI 4408	Medicinal Chemistry	3
PSCI 4440	Fundamentals of Nanoscience	3

¹ Prerequisites include CHEM 2211, CHEM 2213, and CHEM 3351.

² Corequisite is CHEM 3351.

³ Corequisite is CHEM 3352.

Minor in Biology

The Minor in Biology is only available to majors outside of Biological Sciences.

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4

BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	4

BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4	Upper division Biology courses	6
BIOL 3358	Genetics	3	Total Credits	28
BIOL 4417	Organic Evolution	3		

Minor in Microbiology

The Minor in Microbiology is available to any major, but the upper division coursework (credits) applied to the Minor must be distinct from those applied to the Major.

Code	Title	Credits
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	4
Any combination of the following courses to total 14 credits		14
BIOL 3358	Genetics	
BIOL 4432	Biochemistry	
BIOL 4433 & 4433L	Microbial Physiology and Microbial Physiology Laboratory	
BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	
BIOL 4437/CHEM 4438	Experimental Biochemistry	
BIOL 4444 & 4444L	Cell and Molecular Biology and Cell and Molecular Biology Lab	
BIOL 4451 & 4451L	Immunology and Immunology Laboratory	
BIOL 4461	Advanced Genetics	
BIOL 4475	General Virology	
BIOL 4477	Bacterial Virology Laboratory	
BIOL 4478	Animal Virology Laboratory	

(BIOL 4482, BIOL 4491/BIOL 4492, and BIOL 4494 may not be used without prior approval of the departmental chair or assistant chair.)

Department of Chemistry

Program Description	Type	Degree
Chemistry, B.S. (p. 363)	Degree	B.S.
Chemistry, B.A. (p. 363)	Degree	B.A.
Biochemistry, B.S. (p. 358)	Degree	B.S.
Chemistry, Combined B.S./M.S. (p. 365)	Degree	B.S./M.S.
Chemistry, Minor (p. 366)	Minor	

Objectives:

1. To gain a well-rounded knowledge of the basic fields of the discipline.
2. To develop an understanding of how chemists think, gather evidence, process data, and reach tentative conclusions.
3. To think critically about experimental observations and theories.
4. To develop effective oral and written communication skills.
5. To engage in problem solving.
6. To prepare for a career or profession after graduation in the field of chemistry either as an educator or in industry.
7. To be able to competitively pursue a health-related advanced professional degree.

Our chemistry courses will prepare students for industrial or government laboratory work or for graduate study in chemistry, biochemistry, or allied fields or serve as preparation for medical, pharmacy, optometry, physician assistant, or dental school.

The department offers five degree programs: four traditional degrees and a unique combined B.S./M.S. program. The Bachelor of Arts degree is designed for students who desire a flexible program so they can develop more interdisciplinary competence. This degree is ideal for those students endeavoring to work at the chemistry/biology/pharmaceutical chemistry interface. The Bachelor of Science degree places greater emphasis on comprehensive chemistry, leading to American Chemical Society (ACS) certification upon graduation. The Bachelor of Science degree in Biochemistry is a joint program with the Department of Biological Sciences. The combined B.S./M.S. program is designed to enable students to attain both a B.S. and an M.S. in a five year time frame. This program allows the student to receive the ACS-certified Bachelor of Science degree and the Master of Science degree at the end of the fifth year. Students may apply as sophomores for this program and can be admitted into the program at the beginning of their junior year. The department offers a Master of Science degree as well for individuals who already possess a Bachelor of Science in Chemistry.

Course work to be used as a prerequisite for a chemistry class must have been taken within the most recent 5 year period unless the student obtains permission of the instructor and has a grade of C- or better. All credits applied to a chemistry degree or applied to chemistry courses used to partially satisfy Objective 5 must have been taken within the most recent 10 years unless it can be shown that the coursework taken earlier covers material that has not changed substantially during the intervening time, or that the student has been able to remain current in the topics covered in the course. Evidence that the older coursework is still appropriate must be approved by the department chairperson.

Plans of Study (p. 367)

Faculty (p. 361)

CHEM Courses (p. 519)

Chemistry Faculty

Chair and Professor

Pak, Joshua J. * Chair and Professor, Chemistry. B.A. 1993, Whittier College; M.S. 1995, Duquesne University; Ph.D. 1999, University of Oregon. (2001)

Professors

Castle, Lyle W. * Professor, Chemistry. B.S. 1985, Southern Utah State College; M.S. 1988, University of Nebraska; Ph.D. 1992, University of Florida. (1994)

De Jesus, Karl * Professor, Chemistry. B.S. 1977, Texas Christian University; Ph.D. 1986, University of Wisconsin, Madison. (1994)

Evilia, Caryn M. * Professor, Chemistry and Biological Sciences. B.S. 1991, University of Massachusetts; Ph.D. 1998, University of Pennsylvania. (2006)

Kalivas, John H. * Professor, Chemistry. B.S. 1978, California Polytechnic State University; Ph.D. 1982, University of Washington. (1984)

Rodriguez, René G. * Professor, Chemistry. B.S. 1981, University of Colorado; M.S. 1984, University of Minnesota; Ph.D. 1987, University of Idaho. (1988)

Rosentreter, Jeffrey J. * Professor, Chemistry. B.S. 1985, University of Montana; Ph.D. 1990, Colorado State University. (1990)

Associate Professors

Goss, Lisa M. * Associate Professor, Chemistry. B.S., 1992, Willamette University; Ph.D. 1998, University of Colorado, Boulder. (1999)

Holland, Andrew * Associate Professor, Chemistry. B.S. 1997, University of Washington; Ph.D. 2002, University of California, Berkeley. (2004)

Assistant Professor

Jenkins, Courtney, Assistant Professor, Chemistry. B.S. 2010, Saint Louis University; Ph.D. 2015, Purdue University; Postdoctoral Scholar 2016, California Institute of Technology. (2019)

Teaching Assistant Professor

Morris, Todd, Teaching Assistant Professor, Chemistry. B.S. 2004, University of Tennessee; Ph.D. 2009, University of Alabama. (2016)

Research Assistant Professor

Sharma, Kumari Kavita, Research Assistant Professor, Chemistry. B.S. 2005, Pune University, India; M.S. 2007, Pune University, India; Ph.D. 2015, Konkuk University, S. Korea. (2017)

Senior Lecturer

Rosentreter, Renée, Associate Lecturer, Chemistry. B. S. 1992, M.S. 1995, Ph.D. 1999, Idaho State University. (1999)

Associate Lecturers

Omar, Enouri, Associate Lecturer, Chemistry. B.S. 1984, M.S. 1986, Idaho State University. (1984)

Quarder, Henrike Swantje, Lecturer, Chemistry. B.S. 1991, M.S. 1993, M.S. 1996, University of Freiberg (Germany). (1995)

Assistant Lecturers

Halpenny-Weathersby, Anne, Assistant Lecturer, Chemistry. B.S. 1980, Dublin University, Ireland; M.S. 2002, Mississippi College.

Jolley, Sharlene, Assistant Lecturer, Chemistry. B.S. 1996, Utah State University; M.S. 1998, Kansas State University.

Emeriti

Faler, Kenneth T., Professor, Chemistry and Physics. 1967-1991

Holman, Robert, Professor, Chemistry. 2004-2019

Ronald, Bruce P., Professor, Chemistry. 1968-2001

Sutter, Jr., E. John, Professor, Chemistry. 1971-2004

Wiegand, Gayl H., Professor, Chemistry. 1965-2004

B.A. Chemistry

Students pursuing a Bachelor of Arts in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 during the freshman year, and ENGL 1102 should be passed by, or during, the sophomore year. (General Education Objective 1 is satisfied by taking ENGL 1101 or ENGL 1101P, AND ENGL 1102. General Education Objective 2 is satisfied by COMM 1101.) Objective 3 should be fulfilled by MATH 1160 or MATH 1170 as early as possible. The other General Education Requirements should be taken as credit load allows. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
MATH 1170 or MATH 1160	Calculus I Survey of Calculus	3-4
PHYS 1111 & PHYS 1113 & PHYS 1112 & PHYS 1114	General Physics I and General Physics I Laboratory and General Physics II and General Physics II Laboratory	8
OR		
PHYS 2211 & PHYS 2213 & PHYS 2212 & PHYS 2214	Engineering Physics I and Engineering Physics I Laboratory and Engineering Physics II and Engineering Physics II Laboratory	10

B.S. Chemistry

A suggested sequence for taking the required science courses is given below. Students who opt for a variation from the suggested sequence should check to ensure that course prerequisites have been satisfied. Because many courses have structured prerequisites, major deviations from this schedule could increase the time required to obtain the degree. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).

Students working on a Bachelor of Science degree in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 during the freshman year, and ENGL 1102 should be passed by, or during, the sophomore year. (General Education Objective 1 is satisfied by taking ENGL 1101 or ENGL 1101P, AND ENGL 1102. General Education Objective 2 is satisfied by COMM 1101.) The mathematics requirement (Objective 3) should be fulfilled by MATH 1170 and MATH 1175 as early as feasible.

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5

CHEM 2211	Inorganic Chemistry I	3
CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 3341 & CHEM 3342	Topics in Physical Chemistry I and Topics in Physical Chemistry II	6
OR		
CHEM 3351 & CHEM 3352	Physical Chemistry I and Physical Chemistry II	6
CHEM 3391	Seminar	1
BIOL 4432 or CHEM 4445	Biochemistry Biochemistry I	3

Electives

Students must take 8 additional upper-division (3000-4000 level) credits in chemistry, approved by the department and not to include CHEM 4491. No more than 2 credits of CHEM 3311 and 2 credits in CHEM 4481-CHEM 4482 may be used to satisfy these electives. If the CHEM 4445 and CHEM 4447 sequence is taken, 3 credits may be used to satisfy elective credits. No more than 40 credits in chemistry will count toward graduation in this program.

CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
PHYS 2211 & PHYS 2213	Engineering Physics I and Engineering Physics I Laboratory	5
PHYS 2212 & PHYS 2214	Engineering Physics II and Engineering Physics II Laboratory	5
CHEM 2211	Inorganic Chemistry I	3
CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 3331 & CHEM 3334	Instrumental Analysis and Instrumental Analysis Laboratory	4
CHEM 3351 & CHEM 3352	Physical Chemistry I and Physical Chemistry II	6

CHEM 3365 & CHEM 3366	Synthetic Methods and Synthetic Methods Laboratory	4	CHEM 4445 & CHEM 4447	Biochemistry I and Biochemistry II	6
BIOL 4432	Biochemistry	3	CHEM 4451 & CHEM 4452	Physical Chemistry Laboratory I and Physical Chemistry Laboratory II	2
OR			CHEM 4481 & CHEM 4482	Independent Problems in Chemistry and Independent Problems in Chemistry	3
BIOL 4445 & BIOL 4447	Biochemistry I and Biochemistry II	6	CHEM 4491	Seminar	1
OR					

B.S. Biochemistry

(This degree appears in the Biological Sciences and Chemistry sections of the catalog.)

Two departments - Biological Sciences and Chemistry - jointly offer the B.S. degree in Biochemistry. The curriculum is designed to prepare the student for graduate work in biochemistry and related fields, as well as for admission to medical, dental, or other health professional schools. The graduate is also prepared to go directly into research or industrial positions which require preparation only at the B.S. level.

The purpose of the B.S. in Biochemistry is to serve students who seek to develop a strong background in biochemistry and the supporting sciences of biology, chemistry, and physics. Majors also gain experience in the broad areas of biochemistry, molecular biology, biotechnology, and medical and/or ecological applications of each. Majors gain experience that will prepare them to participate in research development, planning and implementation, and to be competent to carry out standard biochemical and molecular biology techniques in the laboratory. The B.S. in Biochemistry prepares students to be competitive for positions in research, graduate schools, health profession schools, and in the biotechnology industry.

Core Requirements ¹

Students pursuing a Bachelor of Science must satisfy all of the General Education Objectives (a minimum of 24 credits; Objectives 3 and 5 are satisfied in the core--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). Students must also satisfy the core requirements listed below and at least **20** credits of elective courses selected from Biological Sciences, Chemistry, Mathematics, and Biomedical and Pharmaceutical Sciences. In order to make timely progress toward the degree, it is imperative that the student work closely with a major advisor. All graduates of this program will earn a B.S. in Biochemistry.

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab ²	4
BIOL 3358	Genetics	3
BIOL 4437/CHEM 4438	Experimental Biochemistry	1
BIOL 4444 & 4444L	Cell and Molecular Biology and Cell and Molecular Biology Lab	4
BIOL/CHEM 4445	Biochemistry I	3
BIOL/CHEM 4447	Biochemistry II	3
BIOL/CHEM 4498	Seminar in Biochemistry	1

CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab (Partially satisfies General Education Objective 5)	4
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 3341	Topics in Physical Chemistry I ³	3
CHEM 3342	Topics in Physical Chemistry II ³	3
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory (Partially satisfies General Education Objective 5) ⁴	4
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory (Partially satisfies General Education Objective 5) ⁴	4
Additional General Education Requirements		24
An additional 6 credits from any college or department		6
Total Credits		100

¹ Students must pass core classes with a grade of C- or better.

² May elect to take BIOL 2206 and BIOL 2207 instead of BIOL 2235 and BIOL 2235L.

³ May elect to take CHEM 3351 and CHEM 3352 instead of CHEM 3341 and CHEM 3342.

⁴ PHYS 2211, PHYS 2212, PHYS 2213, and PHYS 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Electives

Students must take a minimum of **20** elective credits from the list below, with at least **8** credits in Biological Sciences (BIOL), **8** credits in Chemistry (CHEM), and **4** additional credits in either Biological Sciences (BIOL), Chemistry (CHEM), Mathematics (MATH), or Biomedical and Pharmaceutical Sciences (PSCI).

Courses in Biological Sciences:

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3304 & 3304L	Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab	5
BIOL 3324 & 3324L	Developmental Biology and Developmental Biology Lab	4
BIOL 4404 & 4404L	Plant Physiology and Plant Physiology Lab	4
BIOL 4417	Organic Evolution	3
BIOL 4433 & 4433L	Microbial Physiology and Microbial Physiology Laboratory	4
BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	4
BIOL 4443	Endocrinology	3
BIOL 4449	Human Physiology I	4
BIOL 4451 & 4451L	Immunology and Immunology Laboratory	4
BIOL 4453	Foundations in Neuroscience	3
BIOL 4456	Human Physiology II	4
BIOL 4461	Advanced Genetics	3
BIOL 4473 & 4473L	Applied and Environmental Microbiology and Applied Environmental Microbiology Lab	4
BIOL 4475	General Virology	3
BIOL 4477 or BIOL 4478	Bacterial Virology Laboratory Animal Virology Laboratory	1
BIOL 4481 & BIOL 4482	Independent Problems and Independent Problems	max 2
BIOL 4494	Seminar in Microbiology	1

Courses in Chemistry:

Code	Title	Credits
CHEM 2211	Inorganic Chemistry I	3
CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 3311 & CHEM 3312	Introduction to Research and Introduction to Research	max 2
CHEM 3331 & CHEM 3334	Instrumental Analysis and Instrumental Analysis Laboratory	4
CHEM 3365 & CHEM 3366	Synthetic Methods and Synthetic Methods Laboratory	4
CHEM 4407	Inorganic Chemistry II ¹	2
CHEM 4433 & CHEM 4437	Environmental Chemistry and Environmental Chemistry Laboratory	3
CHEM 4451	Physical Chemistry Laboratory I ²	1
CHEM 4452	Physical Chemistry Laboratory II ³	1
CHEM 4481 & CHEM 4482	Independent Problems in Chemistry and Independent Problems in Chemistry	max 2
CHEM 4485	Senior Research	max 1
CHEM 4491	Seminar	1

Courses in Mathematics:

Code	Title	Credits
MATH 2240	Linear Algebra	3
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3

Courses in Biomedical and Pharmaceutical Sciences:

Code	Title	Credits
PSCI 2205	Drugs in Society	2
PSCI 3301	Introduction to Pharmacology	3
PSCI 3308	Drug Discovery	2
PSCI 3353	Introduction to Methods in Pharmaceutical Sciences	2
PSCI 4407	Pharmacogenomics	2
PSCI 4408	Medicinal Chemistry	3
PSCI 4440	Fundamentals of Nanoscience	3

¹ Prerequisites include CHEM 2211, CHEM 2213, and CHEM 3351.

² Corequisite is CHEM 3351.

³ Corequisite is CHEM 3352.

Combined B.S./M.S. Program in Chemistry

Students may be admitted to the program after having completed 64 credit hours. Application for admission must be made to the Chemistry Department. In addition, the student should have completed the following courses or their equivalent:

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4

CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
PHYS 2211 & PHYS 2213	Engineering Physics I and Engineering Physics I Laboratory	5
PHYS 2212 & PHYS 2214	Engineering Physics II and Engineering Physics II Laboratory	5

Suggested Preparatory Courses

Students are encouraged, but not required, to complete the following courses prior to entering the program. These courses must be completed eventually to satisfy the BS degree requirements and also serve as prerequisites for advanced courses in the BS/MS degree.

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
CHEM 2211 & CHEM 2213	Inorganic Chemistry I and Inorganic Chemistry I Laboratory	4
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4

Minor in Chemistry

Required courses:

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 2211	Inorganic Chemistry I	3
CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 2232	Quantitative Analysis	2
CHEM 2234	Quantitative Analysis Laboratory	2
CHEM 3301	Organic Chemistry I	3
CHEM 3302	Organic Chemistry II	3
CHEM 3303	Organic Chemistry Laboratory I	1
CHEM 3304	Organic Chemistry Laboratory II	1
Approved upper-division electives in chemistry (excluding CHEM 4400, CHEM 4481, CHEM 4482, and CHEM 4491)		4
Total Credits		29

Chemistry Plans of Study

Bachelor of Arts in Chemistry

A suggested sequence for the science requirements is listed below. Variations from the suggested sequence should be checked to ensure that all course prerequisites are met. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).

First Year	Credits
BIOL 1101 & 1101L	4
CHEM 1111 & 1111L	5
CHEM 1112 & 1112L	4
MATH 1170 or 1160	3-4
	16-17
Second Year	Credits
CHEM 2232	2
CHEM 2234	2
CHEM 3301	3
CHEM 3302	3
CHEM 3303	1
CHEM 3304	1
Take one of the following physics sequences:	8-10
PHYS 1111 & PHYS 1112 & PHYS 1113 & PHYS 1114	
OR	
PHYS 2211 & PHYS 2212 & PHYS 2213 & PHYS 2214	
	20-22
Third Year	Credits
BIOL 4432 or CHEM 4445	3
CHEM 2211	3

CHEM 2213	1
CHEM 3341 & CHEM 3342	6
OR	
CHEM 3351 & CHEM 3352	
	13
Fourth Year	Credits
CHEM 3391	1
	1
Total Credits: 50-53	

¹ Plus 8 additional upper-division (3000-4000 level) credits in chemistry, approved by the department and not to include CHEM 4491. No more than 2 credits of CHEM 3311 and 2 credits in CHEM 4481-CHEM 4482 may be used to satisfy these electives. If the CHEM 4445 and CHEM 4447 sequence is taken, 3 credits may be used to satisfy elective credits. No more than 40 credits in chemistry will count toward graduation in this program.

² Students pursuing a Bachelor of Arts in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 during the freshman year, and ENGL 1102 should be passed by, or during, the sophomore year. (General Education Objective 1 is satisfied by taking ENGL 1101 or ENGL 1101P, AND ENGL 1102. General Education Objective 2 is satisfied by COMM 1101.) Objective 3 should be fulfilled by MATH 1160 or MATH 1170 as early as possible. The other General Education Requirements should be taken as credit load allows.

Bachelor of Science in Chemistry

A suggested sequence for taking the required science courses is given below. Students who opt for a variation from the suggested sequence should check to ensure that course prerequisites have been satisfied. Because many courses have structured prerequisites, major deviations from this schedule could increase the time required to obtain the degree. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).

Students working on a Bachelor of Science degree in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 during the freshman year, and ENGL 1102 should be passed by, or during, the sophomore year. (General Education Objective 1 is satisfied by taking ENGL 1101 or ENGL 1101P, AND ENGL 1102. General Education Objective 2 is satisfied by COMM 1101.) The mathematics requirement (Objective 3) should be fulfilled by MATH 1170 and MATH 1175 as early as feasible.

First Year	Credits
BIOL 1101 & 1101L	4
CHEM 1111 & 1111L	5
CHEM 1112 & 1112L	4
MATH 1170	4
MATH 1175	4
	21
Second Year	Credits
CHEM 2232	2
CHEM 2234	2
CHEM 3301	3
CHEM 3302	3
CHEM 3303	1
CHEM 3304	1
PHYS 2211 & PHYS 2212	8
PHYS 2213 & PHYS 2214	2
	22
Third Year	Credits
CHEM 2211	3
CHEM 2213	1
CHEM 3331	2
CHEM 3334	2
CHEM 3351 & CHEM 3352	6
CHEM 4451 & CHEM 4452	2
	16
Fourth Year	Credits
Choose one:	3-6
BIOL 4432	
OR	

BIOL 4445 & BIOL 4447	
OR	
CHEM 4445 & CHEM 4447	
CHEM 3365	2
CHEM 3366	2
CHEM 4481 & CHEM 4482	4
CHEM 4491	1
	12-15

Total Credits: 71-74

Overview of B.S./M.S. Program

Year 1 in the B.S./M.S. Program (Junior Year): During the first semester each student is expected to select three faculty members to serve as an advisory committee subject to the approval of the department chair. In the second semester, each student will form a planned program of study with a research advisor, write a research overview of a chosen project, and apply and be admitted to the Graduate School. The student must score at or above the 35th percentile in two areas of aptitude (Verbal, Quantitative, and Analytical) of the Graduate Record Exam. The student is expected to begin his/her research no later than the beginning of the summer semester. Thereafter, individual sections of the research paper will be required as the student progresses through the program.

Year 2 in the B.S./M.S. Program (Senior Year) and year 3 (Graduate standing): To remain in the program, a student must maintain a minimum GPA of 3.0 from date of admission and must earn a grade of C- or better in all 6000-level courses. The students' committees will assess student standing annually and will recommend that students who are not making adequate progress discontinue the program. Students are required to have completed all General Education requirements by the end of their second year in the combined B.S./M.S. program.

Suggested Schedule in B.S./M.S. Program

First Year			
Fall/Spring	Credits	Summer	Credits
CHEM 2211	3	Take 6 credits of CHEM 4485:	6
CHEM 2213	1		
CHEM 3331 ¹	2		
CHEM 3334 ¹	2		
CHEM 3351 ¹	3		
CHEM 3352 ¹	3		
CHEM 4451	1		
CHEM 4452	1		

MATH 3360	3	
Electives	11	
	30	6

Second Year

Fall/Spring	Credits	Summer	Credits
Choose one:	3-6	CHEM 6635 ²	6
BIOL 4432			
OR			
BIOL 4445 & BIOL 4447			
OR			
CHEM 4445 & CHEM 4447			
CHEM 3365	2		
CHEM 3366	2		
CHEM 4407	2		
CHEM 4485	2		
CHEM 4491	1		
CHEM 6609 ²	3		
CHEM 6655 ²	3		
Electives	8		
	26-29		6

Third Year

Fall/Spring	Credits
CHEM 6601 ²	1
CHEM 6630 ²	3
CHEM 6635 ²	4
CHEM 6671 ²	3
Electives	13
	24

Total Credits: 92-95

¹ Must be completed by the end of junior year.

² For more information on 6000 level courses, please see the Graduate Catalog (<http://coursecat.isu.edu/graduate>).

Computer Science Program

Programs in Computer Science

Program Description	Type	Degree
Computer Science, B.S. (p. 371)	Degree	B.S.
Computer Science, Minor (p. 371)	Minor	

The Computer Science Program offers a Bachelor of Science degree in Computer Science, as well as a minor in Computer Science.

The goal of the Computer Science program at Idaho State University is to provide students with a broad, yet rigorous Computer Science education, with emphasis in

- operating systems
- computer organization and architecture
- data structures and algorithms
- software implementation
- programming languages
- project management
- machine learning and artificial intelligence

The curriculum incorporates 30 credit hours of math and science, including

- differential and integral calculus
- linear algebra
- discrete math

- statistics
- physics

The B.S. in Computer Science prepares graduates to enter a wide range of high-paying careers, including

- software engineering
- graphics
- databases
- cyber security
- data scientist

Seventy percent (70%) of the new STEM jobs over the next decade are expected to be CS related. National starting salaries are around \$65,000 with career salaries averaging \$147,000 (Robert Half 2017). CS majors with MBAs in technical management positions may earn significantly more.

Students wishing to become computer science majors should contact the CS office to have an advisor assigned to them. All courses and prerequisites applying toward the Computer Science major and minor must be passed with a grade of “C-“ or higher.

For all CS courses after CS 1181, students are expected to have a laptop computer with sufficient capacity to run various tools within virtual machines.

Faculty (p. 370)

CS Courses (p. 534)

Computer Science Faculty

Chair and Professor

Parker, Kevin R.,* Department Chair and Professor, Informatics. B.A. 1982, University of Texas at Austin; M.S. 1991, Ph.D. 1995, Texas Tech University. (1999)

Professor

Beard, David Volk, Professor, Computer Science. B.A. 1978, Hope College; M.S. 1981, Ph.D. 1985, University of Michigan Ann Arbor. (1995)

Schou, Corey D.,* Associate Dean for Information Assurance and Professor, College of Business; Director, Informatics Research Institute. B.S. 1968, Rollins College; M.S. 1970, Ph.D. 1972, Florida State University. (1985)

Assistant Professors

Bodily, Paul M., Assistant Professor, Computer Science. B.S. 2010, B.A. 2010, M.S. 2013, Ph.D. 2018, Brigham Young University. (2018)

Griffith, Isaac D., Assistant Professor, Computer Science. B.A. 2011, B.S. 2011, M.S. 2014, Montana State University. (2018)

Clinical Assistant Professor

McGregor, Michael, Clinical Assistant Professor, Computer Science. B.S. 2016, Idaho State University; M.S. 2018, University of Idaho. (2018)

B.S. Computer Science

Program Admissions Requirements

There are no program admission requirements for the B.S. in Computer Science.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1170		4
Objective 4		6
Objective 5 - PHYS 2211		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7 - CS 1181 or INFO 1181		
Objective 8		
Objective 9		3
Total Credits		38

Major Requirements

All required courses for the CS major must be completed with a grade of C- or higher.

Code	Title	Credits
Mathematics and Science Courses:		
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4
MATH 2240	Linear Algebra	3
CS/MATH 1187	Applied Discrete Structures	3
PHYS 2211	Engineering Physics I (Partially satisfies General Education Objective 5)	4
Math or Science Electives ¹		10
Select one course in statistics from the following:		
MATH 3350	Statistical Methods	3
or MATH 4450	Mathematical Statistics I	
or MGT 2216	Business Statistics	
Technical Communication Requirements:		
ENGL 3307	Professional and Technical Writing	3

Minor in Computer Science

Code	Title	Credits
CS/INFO 1181	Computer Science and Programming I (Satisfies General Education Objective 7)	3
CS 1337	System Programming and Assembly	3
CS 2235	Data Structures and Algorithms	3

or ENGL 3308

Business Communications

Required Computer Science and Related Courses:

CS/INFO 1181	Computer Science and Programming I (Satisfies General Education Objective 7)	3
CS 1337	System Programming and Assembly	3
CS 2235	Data Structures and Algorithms	3
CS 2263	Advanced Object-Oriented Programming	3
CS 3305	Introduction to Computational Theory	3
CS 3316	Social Issues and Professional Practices in Computing	3
CS 3321	Introduction to Software Engineering	3
CS 3337	Advanced Systems Programming	3
CS 4412	Advanced Algorithms	3
CS 4488	Capstone Project	3
INFO 4407	Database Design and Implementation	3
The CS Major also requires 9 additional 4000-level CS elective credits.		9
Total Credits		76

¹ Ten (10) additional credits are required from math, biological science, chemistry, geoscience, or physics. At least six (6) of the ten (10) credits must be at the 2000-level or higher (with the exception of MATH 2256, MATH 2257, BIOL 2213, BIOL 2214, BIOL 2230, and BIOL 2280).

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	38
	Major Requirements (Required General Education credits removed.)	65
	Upper Division Free Electives	3
	Free Electives	14
	Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

MAP

CS 2263	Advanced Object-Oriented Programming	3
CS 3321	Introduction to Software Engineering	3
Any 4000-Level CS Course		3
Total Credits		18

Engineering

General Information

Idaho State University engineering graduates are successfully employed in many areas and many have chosen to continue advanced studies in a wide variety of specialized engineering disciplines.

Each student entering an engineering program is assigned a faculty advisor to guarantee an appropriate plan of study and to ensure continuity throughout the program. Each student completes university general education courses, engineering courses, and a senior design project during the final two or three semesters.

Students entering an engineering program should have: (a) adequate algebra and trigonometry to enter the calculus (MATH 1170) sequence and (b) some familiarity with computer language and computer fundamentals. Deficiencies in these areas may delay entry into their major's four-year plan of study. Preparatory mathematics and computer courses are available at Idaho State University.

Fundamentals of Engineering (FE) Exam

Engineering students are encouraged to take the Fundamentals of Engineering (FE) exam during their senior year, while the breadth of the engineering material covered on the examination is still fresh in their minds. This exam is considered the first step in professional licensure for engineers.

Engineering Academic Rules

1. Every Engineering student is encouraged to meet with a faculty member from her/his discipline for academic advising prior to registration each semester. A student who pursues a double major should regularly consult with a faculty member from each of the two major programs.
2. Transfer credits including correspondence, web-instructed, and video-tape courses are subject to existing engineering program articulation and/or transfer credit review criteria. Articulated courses are listed on the Registrar's web page. Any transfer course must be completed within a single academic term. A new student who wants to transfer into an Idaho State University engineering major must have prior coursework evaluated for transfer credit before matriculating into the program.
3. A student who enrolls in an engineering class while petitioning for a waiver of applicable prerequisites must secure the waiver by the end of the first week of classes or be dropped from the course in question.
4. Any prerequisite in a sequence of courses is an effective prerequisite for any subsequent course in the sequence. For example, if course A is a prerequisite for course B, and course B is a prerequisite for course C; then course A is an implied prerequisite for course C.
5. Students who have been dismissed from an engineering program may not enroll in engineering courses prior to readmission.

Department of Civil and Environmental Engineering

Program Description	Type	Degree
Civil Engineering, B.S. (p. 375)	Degree	B.S.

Accreditation

The Bachelor of Science (B.S.) program in Civil Engineering (CE) is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

Mission Statement

To prepare traditional and nontraditional students to succeed in professional practice and become industry leaders, we educate the next generation of civil and environmental engineers and advance the state of the profession. We strive for close student-faculty relations through small, effective, educational settings in a friendly environment.

Educational Objectives

The following educational objectives have been established:

- Graduates will apply technical knowledge in complex engineering projects and obtain professional licensure.
- Graduates will be professionally competent, evidenced by leadership, teamwork, management, and communication skills.
- Graduates will engage in professional development, life-long learning, and service to their profession and society

General Information

Idaho State University civil engineering graduates are successfully employed in many areas and many have chosen to continue advanced studies in a wide variety of specialized engineering disciplines throughout the region and nation.

Every student entering the civil engineering program is assigned a faculty advisor to guarantee an appropriate plan of study and to ensure continuity throughout the program. Each student completes university general education courses and civil engineering program requirements that include elective courses.

Students entering the civil engineering program should have adequate credentials in algebra and trigonometry or higher to enter the calculus sequence. Students not entering at the calculus level will not be eligible to register for civil engineering courses until meeting the mathematics requirement. This may result in a delay in graduation.

General Education Requirements

Students working toward the Bachelor of Science degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits). See the General Education Requirements (p. 57) in the Academic Information section of the catalog.

Fundamentals of Engineering (FE) Exam

Civil engineering students are encouraged to take the Fundamentals of Engineering (FE) exam during their senior year, while the breadth of the engineering material covered on the examination is still fresh in their minds. This exam is considered the first step in professional licensure for engineers.

Surveying Licensure

Civil engineering students interested in obtaining a professional surveying license from the State of Idaho will need to complete the following courses from the Geomatics Program in addition to a Bachelor of Science in Civil Engineering.

CET 0216 Route Survey and GPS Fundamentals
 GEMT 3310 Boundary Surveying Law
 GEMT 3312 Public Land Surveying
 GEMT 4411 Geodesy
 GEMT 4430 GPS Principles and Applications
 GEMT Electives - Any surveying courses (10 credits)

Civil and Environmental Engineering Academic Rules and Policies

A current Idaho State University civil engineering major student who intends to transfer an engineering course to Idaho State University must obtain prior approval for the transfer either via transfer credit review (petition process) or through existing program articulation.

Transfer credits must be posted to the student's ISU transcript prior to registering for any course that has the transfer course credits as a prerequisite or co-requisite.

A student requesting a credit limit overload must have a 2.0 GPA or better. A student's advisor can submit an email request to the department chair after meeting with the student and discussing their schedule. Upon concurrence, the chair will submit the request for final approval to the associate dean. A student that has been allowed an overload and failed one of the courses in a previous semester, will not be allowed additional overloads in future semesters. Overloads will be considered starting one week before courses start, allowing other students the opportunity to register first.

Any student missing the first week of a civil engineering class, in any semester, may be dropped from that course.

To maintain "academic satisfactory progress" and avoid academic probation and/or academic dismissal, undergraduate students must maintain a cumulative Idaho State University GPA of 2.0 or higher every semester.

Prerequisites are placed on courses to help students succeed. Students are required to meet course prerequisites prior to taking the course.

Faculty (p. 374)

CE Courses (p. 523)

Civil Engineering Faculty

Chair and Associate Professor

Savage, Bruce M.,* Chair and Associate Professor, Civil and Environmental Engineering. B.S. 1992, M.S. 1997, Ph.D. 2002, Utah State University. (2006)

Associate Chair and Professor

Sato, Chikashi,* Professor, Civil and Environmental Engineering. B.S. 1971, Fukushima National College of Technology; M.S. 1976, University of Kansas; Ph.D. 1981, University of Iowa. (1994)

Professors

Ebrahimpour, Arya,* Professor, Civil and Environmental Engineering. B.S. 1981, M.S. 1984, Ph.D. 1987, University of Idaho. (2000)

Leung, Solomon,* Professor, Civil and Environmental Engineering. B.A. 1978, M.S. 1982, Ph.D. 1989, University of Iowa. (1992)

Assistant Professor

Mashal, Mustafa,* Assistant Professor, Civil and Environmental Engineering. B.Sc. 2008, Kabul University; M.Sc. 2011, University of Buffalo-State University of New York; Ph.D. 2015, University of Canterbury. (2016)

Senior Lecturer

Mahar, James,* Senior Lecturer, Civil and Environmental Engineering; Affiliate Faculty, Geosciences. B.S. 1967, Idaho State University; M.S. 1972, Colorado State University; Ph.D. 1977, University of Illinois. (2003)

Adjunct Faculty

Andrew Fellows, PE

John Gale, PhD, PE

Warren Gossett

Terry Keating, PE

Darren Leavitt, PE

Graydon Wright, PE

Bachelor of Science in Civil Engineering

Including the University's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog), students must complete the required courses listed below. Some of the required courses also satisfy or partially satisfy the General Education Objectives, as noted. The courses are listed in the sequence they are to be taken.

Required Courses

Code	Title	Credits
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5
GEOL 1101 & 1101L or BIOL 1100/1100L	Physical Geology and Physical Geology Lab Concepts of Biology	4
MATH 1175	Calculus II	4
PHYS 2211	Engineering Physics I (Partially satisfies General Education Objective 5)	4
CE 1105	Engineering Graphics	2
CE/ME 2210	Engineering Statics	3
CS/INFO 1181	Computer Science and Programming I	3
MATH 3352	Introduction to Probability	3
MATH 2240	Linear Algebra	3
CE 2200	Civil Engineering Tools	1
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
CE/ME 2220	Engineering Dynamics	3
CE/ME 3350	Mechanics of Materials ⁴	3
MATH 3360	Differential Equations	3
CE 3332	Basic Geotechnics ⁴	3
CE 3337	Geotechnical Engineering Laboratory	1
CE 3301	Surveying	3
CE 3362	Structural Analysis	3
CE 3361	Engineering Economics and Management	3
CE 3366	Civil Engineering Materials	2
CE 3367	Civil Engineering Materials Laboratory	1
CE 4434	Geotechnical Design	3
CE/ME 3341	Fluid Mechanics ⁴	3
CE 3351	Engineering Hydrology	3
ENVE 4408	Water and Waste Water Quality ¹	3
CE 4462 or CE 4464	Design of Steel Structures Design of Concrete Structures	3
ENVE 4410	Introduction to Environmental Engineering	3
CE 4435	Hydraulic Design	3
CE 4496A	Project Design I	3

CE 4436	Transportation Engineering	3
CE 4496B	Project Design II	3
CE Technical Electives ²		9

Add'l General Education Objectives ³

- Students must earn a minimum of C- in CHEM 1111/CHEM 1111L before enrolling in ENVE 4408.
- List of approved courses is available in the Civil Engineering Checklist. Two of the three CE Technical Elective courses must be selected from at least two different areas of Geotechnical, Structures, Water Resources, Environmental, or other areas. The third technical elective can be taken from any of the above areas or from another category or course that has been approved by the Department.
Geotechnical: CE 4438, CE 4454, CE 4455, CE 4475, CE 4476, CE 4480
Structures: CE 4431, CE 4462, CE 4464, CE 4465, CE 4466, CE 4468
Water Resources: CE 4424, CE 4425
Environmental: CE 4406, ENVE 4404, ENVE 4409, ENVE 4430
Other: CE 4460, CE 4481, ME 4440
- See the General Education Requirements (p. 57) in the Academic Information section of this catalog.
- A minimum of C- is required for CE 3332, CE/ME 3341 and CE/ME 3350

Emphasis in Engineering Geology

Complete the following courses in addition to the Bachelor of Science in Civil Engineering:

Code	Title	Credits
CE/GEOL 4454	Basic Engineering Geology	3
CE/GEOL 4455	Geologic Data Methods	3
CE/GEOL 4475	Essentials of Geomechanics	3
CE/GEOL 4476	Engineering Geology Project	1
CE 4480/GEOL 4483	Earthquake Engineering	3

Department of Mechanical Engineering

Program Description	Type	Degree
Mechanical Engineering, B.S. (p. 378)	Degree	B.S.

General Information

Idaho State University mechanical engineering graduates are successfully employed in many areas and many have chosen to continue advanced studies in a wide variety of specialized engineering disciplines throughout the region and nation.

Every student entering the mechanical engineering program is assigned a faculty advisor to guarantee an appropriate plan of study and to ensure continuity throughout the program. Each student completes university general education courses and mechanical engineering program requirements. A student who pursues a double major should regularly consult with a faculty member from each of the two major programs.

Students entering the mechanical engineering program should have adequate credentials in algebra and trigonometry or higher to enter the calculus sequence. Students not entering at the calculus level will not be eligible to register for mechanical engineering courses until meeting the mathematics requirement. This may result in a delay in graduation.

General Education Requirements

Students working toward the Bachelor of Science degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits). See the General Education Requirements (p. 57) in the Academic Information section of the catalog.

Fundamentals of Engineering (FE) Exam

Mechanical engineering students are encouraged to take the Fundamentals of Engineering (FE) exam during their senior year, while the breadth of the engineering material covered on the examination is still fresh in their minds. This exam is considered the first step in professional licensure for engineers.

Mechanical Engineering Academic Rules and Policies

Every Mechanical Engineering student is encouraged to meet with a faculty member for academic advising prior to registration each semester. A student who pursues a double major should regularly consult with a faculty member from each of the two major programs.

A new student who wants to transfer into the Mechanical Engineering major must have prior coursework evaluated for transfer credit before matriculating into the program. A current Idaho State University Mechanical Engineering major student who intends to transfer an engineering course to Idaho State University must

Mechanical Engineering Faculty

Chair and Associate Professor

Perez Gracia, M. Alba,* Chair and Associate Professor, Mechanical Engineering; Associate Director, Measurement and Control Engineering Research Center. B.S. 1996, Technical University of Catalonia, Barcelona, Spain; M.S. 1999, Ph.D. 2003, University of California-Irvine. (2004)

obtain prior approval for the transfer either via transfer credit review (petition process) or through existing program articulation. Articulated courses are listed on the Registrar's web page.

- Transfer credits must be posted to the student's ISU transcript prior to registering for any course that has the transfer course credits as a prerequisite or co-requisite.

A student requesting a credit limit overload must apply using the Application for Credit Limit Overload Form that can be found on the Mechanical Engineering website. The minimum requirement is a 3.0 GPA or greater for engineering courses taken over the past two semesters. The completed form must then be submitted to the Chair of Mechanical Engineering for approval.

A student who enrolls in an engineering class while petitioning for a waiver of applicable prerequisites must secure the waiver by the end of the first week of classes or be dropped from the course in question.

Any student missing the first week of a mechanical engineering class, in any semester, will be dropped from that course.

To maintain "academic satisfactory progress" and avoid academic probation and/or academic dismissal, undergraduate students must maintain a cumulative Idaho State University GPA of 2.0 or higher every semester.

Accreditation

The Bachelor of Science (B.S.) program in Mechanical Engineering (ME) is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Educational Objectives for Degree Program in Mechanical Engineering

Five years after they graduate, our Mechanical Engineering graduates should:

- **Professional and Social Responsibility** – demonstrate professionalism and ownership of their work and be an active and positive influence in their community.
- **Professional Leadership** – balance the relationship between business and engineering and interface with multidisciplinary teams to achieve the combined objective.
- **Career Development and Professional Growth** – pursue life-long learning, professional affiliations, and increasing responsibility in the workplace.

Faculty (p. 376)

ME Courses (p. 601)

Professors

Bosworth, Kenneth W.,* Associate Chair and Professor, Mechanical Engineering; Director of the M.S. in Measurement and Control Engineering Program. B.S. 1977, M.S. 1980, Ph.D. 1984, Rensselaer Polytechnic Institute. (1992)

Schoen, Marco P.,* Professor, Mechanical Engineering; Director, Measurement and Control Engineering Research Center. B.S. 1989, Swiss College of

Engineering, Muttentz, Switzerland; M.E. 1993, Widener University; Ph.D. 1997, Old Dominion University. (2001)

Williams, Brian G. * Professor, Mechanical Engineering. B.S. 1990, Brigham Young University; M.S. 1991, Ph.D. 1997, Utah State University. (2002)

Associate Professor

Wabrek, Richard M. * Associate Professor, Mechanical Engineering; Adjunct Faculty, Sport Science and Physical Education. B.S. 1971, Valparaiso University; M.S. 1976, University of Vermont; Ph.D. 1985, New Mexico State - University. (1989)

Assistant Professor

Sebastian, Anish, Assistant Professor, Mechanical Engineering; Director of the M.S. in Mechanical Engineering Program. B.S. 2002, University of Pune; M.S. 2010, Ph.D. 2012, Idaho State University. (2012)

Senior Lecturer

Hofle, Mary M., Senior Lecturer, Mechanical Engineering. B.S. 1982, University of Akron; M.S. (2) 1984, Rensselaer Polytechnic Institute. (1998)

Lab Technician

Wilson, Kellie N., Teaching Lab Technician and Coordinator, Mechanical Engineering. B.S. 2009, Idaho State University; M.S. 2011, Idaho State University. (2017)

Adjunct Faculty

Walters, Tom

Affiliate Faculty

Lin, Feng

Maidana, Carlos

Potluri, Chandu

Bachelor of Science in Mechanical Engineering

Including the University General Education Requirements listed elsewhere (8 of the 9 General Education Objectives, a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog), the program of study for the Bachelor of Science in Mechanical Engineering degree totals a minimum of 120 credits as follows:

Additional Mathematics and Science Course Requirements:

Code	Title	Credits
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4
MATH 2240	Linear Algebra	3
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3
CHEM 1111	General Chemistry I (Partially satisfies General Education Objective 5)	4
CHEM 1111L	General Chemistry I Lab (Partially satisfies General Education Objective 5)	1
PHYS 2211	Engineering Physics I (Partially satisfies General Education Objective 5)	4
The three previous courses together satisfy Objective 5.		
PHYS 2212	Engineering Physics II	4

Mechanical Engineering Course Requirements:

Code	Title	Credits
CE/ME 2210	Engineering Statics ¹	3
CE/ME 3350	Mechanics of Materials ¹	3
CE 3360	Engineering Economics	2-3
or CE 3361	Engineering Economics and Management	
EE 2245	Principles of Electrical Circuits	3
ME 1105	Solid Modeling	2
ME 1165	Structured Programming	2
CE/ME 2220	Engineering Dynamics ¹	3
ME 3307	Thermodynamics ¹	3
ME 3320	Kinematics and Dynamics of Machinery ¹	3
ME 3322	Mechanical Engineering Materials	3
ME 3323	Machine Design	3
ME 3325	Advanced Machine Design	3
CE/ME 3341	Fluid Mechanics ¹	3
ME 4406	Measurement Systems Laboratory	1
ME 4440	Vibration Analysis	3
ME 4443	Thermal Fluids Laboratory	1
ME 4463	Mechanical Systems Design	3
ME 4465	Thermal Fluid System Design	3
ME 4473	Mechanical Control Systems	3
ME 4476	Heat Transfer	3
ME 4496A	Project Design I	3
ME 4496B	Project Design II	3
ME Electives ²		7

¹ Course may involve evening examinations and/or presentations.

² Students are to consult with their advisors and choose courses which will complement their engineering education.

For students interested in focusing their ME degree in the Biomedical area, suggested electives are:

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4

For students interested in focusing their ME degree in the Systems area, suggested electives are:

Code	Title	Credits
MATH 3350	Statistical Methods	3
MATH 3352	Introduction to Probability	3
MATH 4421	Advanced Engineering Mathematics I	3
ME 3355	System Dynamics	3
ME 4415	Model Theory	3
ME 4425	Mechatronics	3

For students interested in focusing their ME degree in the Thermal/Fluids area, suggested electives are:

Code	Title	Credits
CE 4435	Hydraulic Design	3
ME 4416	Thermal Power Cycles	3
ME 4451	Compressible Fluid Flow	3

For students interested in focusing their ME degree in the Robotics and Mechanical Design area, suggested electives are:

Code	Title	Credits
CE 4431	Advanced Mechanics of Solids	3
ME 3353	Manufacturing Processes	3
ME 4425	Mechatronics	3

For students interested in focusing their ME degree in the Energy area, suggested electives are:

Code	Title	Credits
MATH 4421	Advanced Engineering Mathematics I	3
NE 3301	Nuclear Engineering I	3
NE 3302	Nuclear Engineering II	3
NE 4419	Energy Systems and Nuclear Power	3

Department of Geosciences

Program Description	Type	Degree
Geology, B.A. (p. 381)	Degree	B.A.
Geology, B.S. (p. 381)	Degree	B.S.
Geology, B.S. with Engineering Geology Emphasis (p. 381)	Degree	B.S.
Geology, Minor (p. 385)	Minor	
Geotechnology, Minor (p. 385)	Minor	
Earth and Environmental Systems, B.S. Environmental Systems Track (p. 383)	Degree	B.S.
Earth and Environmental Systems, B.S. Geospatial Systems Track (p. 384)	Degree	B.S.
Earth and Environmental Systems, B.A. Environmental Systems Track (p. 382)	Degree	B.A.

Overall Departmental Goals

1. Graduates will think critically and comprehend written and verbal communications about geoscience topics.
2. Graduates will have specific skills for careers in geoscience and related industries, licensure, or to continue in graduate study.
3. Graduates will attain employment in geology or related fields or gain admission to graduate programs.

Program-Specific Goals and Objectives

I. Goals

1. Graduates will know geoscience materials, principles, and their applications to scientific inquiry and to societal concerns.
2. Graduates will understand geologic processes and their expression in the history of the Earth.

II. Objectives

1. Provide undergraduate students with coursework, laboratory experiences, field exercises, and hands-on opportunities in order to achieve all goals set forth above.
2. Improve students' awareness of opportunities for professional employment, licensure, or continued education.

The Idaho State University Department of Geosciences is an active community of scholars consisting of undergraduate and graduate students, support and research staff, and professors. Objectives of the department are to train students for professional positions or further study in all aspects of the geosciences. Most courses include field trips and hands-on experience. The Idaho State University Geology summer field camp based at the Lost River Field Station north of Mackay, Idaho, is nationally recognized and attended by students from universities nationwide.

The Idaho State University Geosciences Department offers Bachelor of Science and Bachelor of Arts degrees in Geology, Post-Baccalaureate Geotechnology Certificate, Master of Science degree in Geology, Master of Science degree in Geographic Information Science, and Master of Natural Science degree for teachers who desire more training in up-to-date science methods. The B.S. in Geology with Emphasis in Engineering Geology, the M.S. in Geology with Emphasis in Environmental Geoscience, and a Doctor of Philosophy degree in Engineering and Applied Science are also available.

Students who have decided to major in geology, must take GEOL 2204 and GEOL 2205, which are the prerequisites for many other courses in the

geology major. For the purposes of a geology major or minor, only 4 credits will be granted for any combination of GEOL 1100, GEOL 1100L, GEOL 1101, and GEOL 1101L.

Bachelor of Arts in Geology

The B.A. degree is offered for students who wish either a broader-based liberal arts degree or a broader multi-disciplinary science degree than is possible with the B.S. The B.A. degree is especially suited for future earth science teachers, environmental scientists, environmental lawyers, and others who wish to learn more about how the earth works. The degree fulfills major requirements for secondary school earth science teachers.

Bachelor of Science in Geology

The B.S. degree is offered for undergraduates who wish to become professional geoscientists either after their bachelor's degree or after subsequent graduate study. It trains students in the essential observational and analytical skills of field geology as well as more applied areas of microscope petrology, geochemistry, and geotechnology. The B.S. degree is designed to give the student a broad and comprehensive understanding of the discipline of geology and a firm background in math, physics, and chemistry.

Bachelor of Science or Bachelor of Arts in Earth and Environmental Systems

The purpose of this program is to deliver a multidisciplinary education with environmental geosciences as a foundation, while also drawing upon existing courses from a diverse array of departments and programs.

The emphasis in this program spans local to global concerns. Core knowledge is developed through a set of required courses across multiple disciplines, emphasizing the Geosciences, and through required and elective core courses. The student then chooses one of three tracks composed of courses in Geosciences and related disciplines.

Curriculum Outline

The Earth and Environmental Systems curriculum consists of two components:

1. required Geosciences and cross-disciplinary Core Courses, and
2. required and elective courses in one of three cross-disciplinary tracks.

Most students will be able to complete degree requirements (74-77 credits) and General Education requirements (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this Catalog) within the typical 120-credit, 4-year bachelor's degree. Some of the degree requirements may also satisfy General Education requirements. Depending on results of placement tests in mathematics and other areas, students may be required to take additional coursework, and may thus require more than 120 credits to fulfill both General Education and degree requirements.

1. Required Core Courses

The Required Core Courses provide a solid background within and beyond the Department of Geosciences. Environmental Systems include physical, biological, and human systems; thus, we require course work in Geosciences, Biological Sciences, Physical and Social Sciences, and Mathematics.

2. Cross-disciplinary Track Requirements: the student will pursue one of three tracks, each consisting of specified and elective courses:

- **BS in Environmental Systems:** Upper division courses emphasizing environmental aspects of Geosciences and Biological Sciences, with supporting courses in Mathematics and Physical and Social sciences.
- **BS in Geospatial Systems:** Upper division geotechnologies courses in Geosciences and History, with supporting courses in Mathematics and Physical and Social sciences.

- **BA in Environmental Systems:** Interdisciplinary coursework in Political Science, History, Economics, Sociology, Anthropology, and Philosophy.

Geosciences Faculty

Chair and Professor

Crosby, Benjamin T., Professor, Geosciences. B.A. 1999, University of California at Berkeley; Ph.D. 2006, Massachusetts Institute of Technology. (2006)

Professors

Finney, Bruce P., Joint Appointment with Biological Sciences. B.S. 1979, University of Montana; Ph.D. 1987, Oregon State University. (2008)

Link, Paul K., Geosciences. B.S. 1976, Yale University; B.S. 1977, University of Adelaide; Ph.D. 1982, University of California, Santa Barbara. (1980)

Lohse, Kathleen, Joint Appointment with Biological Sciences. B.S. & B.A. 1993, Cornell University; Ph.D. 2002, University of California, Berkeley, CA. (2010)

Rodgers, David, Associate Dean, Science and Engineering; Professor, Geosciences. B.A. 1981, Carleton College; Ph.D. 1987, Stanford University. (1985)

Tapanila, Leif, Geosciences; Joint Appointment as Director and Earth Sciences Division Head, Idaho Museum of Natural History. Honors B.Sc. 1999, University of Waterloo, Waterloo, Canada; M.S. 2000, Laurentian University, Sudbury, Canada; Ph.D. 2005, University of Utah. (2005)

Thackray, Glenn D., Geosciences. B.S. 1985, Beloit College; M.S. 1989, University of Oregon; Ph.D. University of Washington. (1994)

Associate Professors

Delparte, Donna, Associate Professor, Geosciences. B.S. 1989, University of Regina; M.S. 1997, Ph.D. 2008, University of Calgary. (2012)

Godsey, Sarah, Associate Professor, Geosciences. B.A. 1999, University of Virginia; M.S. 2003, University of Cincinnati; Ph.D. 2009, University of California, Berkeley. (2012)

Kobs Nawotniak, Shannon E., Associate Professor, Geosciences. B.S. 2003, Michigan Technological University; Ph.D. 2009, SUNY at Buffalo. (2011)

Pearson, David, Associate Professor, Geosciences. B.S. 2002, University of California at Santa Barbara; M.S. 2007, Ph.D. 2012, University of Arizona. (2012)

Assistant Professor

Bottenberg, Carrie, Assistant Lecturer, Geosciences. B.A. 1997, B.S. 2005, University of Montana; M.S. 2009, Ph.D. 2012, Missouri University of Science and Technology. (2011)

Associate Lecturer

Tapanila, Lori, Associate Lecturer, Geosciences. B.S. 1998, M.S. 2006, University of Utah. (2006)

Faculty (p. 380)

GEOL Courses (p. 573)

Affiliate Faculty

Hailemichael, Million, Research Scientist, Idaho State University. Ph.D. Geological and Earth Sciences, Case Western Reserve University, 2000.

Krumenacker, L. J. Research Scientist, Idaho State University, Idaho Museum and Natural History. Ph.D. Earth Sciences, University of Montana-Missoula, 2017.

Mahar, James, Senior Lecturer, Department of Civil & Environmental Engineering, Idaho State University. Ph.D. Engineering Geology, University of Illinois, 1975.

McDonald, Hugh G., Geologist, Bureau of Land Management, Salt Lake City, UT. Ph.D. Geology, University of Toronto, Toronto, Canada, 1988.

McLing, Travis L. Research Scientist, Group Lead/Business Development Lead, Idaho National Laboratory and Center for Advanced Energy Studies, Idaho Falls, Idaho. Ph.D. Geology, University of Idaho, 2017.

Shapley, Mark D. Geosciences. B.S. 1980 University of Washington; M.S. 1985, University of Montana-Missoula; Ph.D., University of Minnesota, 2005.

Shaw, Christopher A. Paleontologist, ArcheoPaleo Resource Management, Inc., Los Angeles, CA. M.S. California State University, Long Beach, 1981.

Sherwin, Jo-Ann, Consultant; S & Y Geological Consultants. Ph.D. Geology, Brown University.

GIS Trec Affiliate

Weber, Keith T., Director, GIS Training and Research Center. B.S. 1993, University of Wisconsin; M.S. 1996, University of Montana. (1999)

Emeriti

Blount, Charles W., Professor, Geology. 1975-1990

Hughes, Scott S., Interim Dean, College of Arts and Sciences; Professor, Geosciences. 1991-2010

McCurry, Michael, Professor, Geosciences. 1999-2019

Bachelor of Arts in Geology

Students must fulfill 8 of the 9 university General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this Catalog).

Required Courses:

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab ¹	5
GEOL 1107	Real Monsters ²	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 3310	Geologic Field Methods	3
GEOL 3313	Earth Materials I	3
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4421 & 4421L	Structural Geology and Structural Geology Laboratory ¹	4

GEOL 4431 & 4431L	Geobiology and the History of Life and Geobiology and the History of Life Lab	4
GEOL 4452 & 4452L	Sedimentation-Stratigraphy and Sedimentation-Stratigraphy Laboratory	4
GEOL 4456 or GEOL 4458	Geology of Idaho Geology of North America	2-3
Plus at least one other upper division geoscience class to equal 40 GEOL credits.		4-5

¹ MATH 1143, MATH 1147, or equivalent, is required for CHEM 1111; MATH 1143 and MATH 1144 or MATH 1147, or equivalent, is required for GEOL 4421.

² Transfer students may substitute other appropriate courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.

Bachelor of Science in Geology

Students must fulfill 8 of the 9 University General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog).

Code	Title	Credits
Required Courses:		
MATH 1170	Calculus I	4
MATH 1175 or MATH 3350	Calculus II Statistical Methods	3-4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
PHYS 1111 or PHYS 2211	General Physics I ¹ Engineering Physics I	3-4
GEOL 1107	Real Monsters ²	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 3310	Geologic Field Methods	3
GEOL 3313	Earth Materials I	3

GEOL 3314	Earth Materials II	3
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4403 & 4403L	Principles of Geographic Information Systems and Principles of GIS Laboratory	3
GEOL 4421 & 4421L	Structural Geology and Structural Geology Laboratory	4
GEOL 4450	Field Geology ³	6
GEOL 4452	Sedimentation-Stratigraphy	4
42 required geoscience credits plus upper division geoscience elective courses to equal at least 50 geoscience credits.		

¹ May choose the following optional courses: PHYS 1113, PHYS 1114, General Physics Laboratory, 2 cr; PHYS 2213, PHYS 2214, Engineering Physics Laboratory, 2 cr.

² Transfer students may substitute other courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.

³ GEOL 4450 is a 5-week summer field course, usually taken between the junior and senior years.

Bachelor of Science in Geology with Engineering Geology Emphasis

The B.S. degree is offered for undergraduates who wish to become professional geoscientists either after their bachelor's degree or after subsequent graduate study. It trains students in the essential observational and analytical skills of field geology as well as more applied areas of microscope petrology, geochemistry, and geotechnology. The B.S. degree is designed to give the student a broad and comprehensive understanding of the discipline of geology and a firm background in math, physics, and chemistry. Students must fulfill 8 of the 9 University General Education Objectives (a minimum of 36 credits--see the General

Education Requirements (p. 57) in the Academic Information section of this catalog).

Code	Title	Credits
Required Courses:		
MATH 1170	Calculus I	4
MATH 1175	Calculus II	3-4

or MATH 3350	Statistical Methods	
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
PHYS 1111	General Physics I ¹	3-4
or PHYS 2211	Engineering Physics I	
GEOL 1107	Real Monsters ²	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 3310	Geologic Field Methods	3
GEOL 3313	Earth Materials I	3
GEOL 3314	Earth Materials II	3
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4403 & 4403L	Principles of Geographic Information Systems and Principles of GIS Laboratory	3
GEOL 4421 & 4421L	Structural Geology and Structural Geology Laboratory	4
GEOL 4450	Field Geology ³	6
GEOL 4452	Sedimentation-Stratigraphy	4

42 required geoscience credits plus upper division geoscience elective courses to equal at least 50 geoscience credits.

¹ May choose the following optional courses: PHYS 1113, PHYS 1114, General Physics Laboratory, 2 cr; PHYS 2213, PHYS 2214, Engineering Physics Laboratory, 2 cr.

² Transfer students may substitute other courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.

³ GEOL 4450 is a 5-week summer field course, usually taken between the junior and senior years.

Emphasis in Engineering Geology

Complete the following courses in addition to the Bachelor of Science in Geology:

Code	Title	Credits
CE/GEOL 4454	Basic Engineering Geology	3
CE/GEOL 4455	Geologic Data Methods	3
CE/GEOL 4475	Essentials of Geomechanics	3
CE/GEOL 4476	Engineering Geology Project	1
CE 4480	Earthquake Engineering	3

Bachelor of Arts in Earth and Environmental Systems, Environmental Systems Track

Required Core Courses

The Required General Courses provide a solid background in Geosciences and other subjects. Environmental Systems include physical, biological and human systems; thus, the program incorporates course work in Biological Sciences, Physical and Social Sciences, and Mathematics. Some of these courses may satisfy General Education requirements.

Code	Title	Credits
GEOL 1107	Real Monsters ¹	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 2292	Geosciences Careers Seminar	1
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4403	Principles of Geographic Information Systems	3
GEOL 4492	Earth and Environmental Systems Seminar	1
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
MATH 1147	College Algebra and Trigonometry (B.A.)	5
or		

MATH 1143 & MATH 1144	College Algebra and Trigonometry
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Recommended:

ENGL 3307	Professional and Technical Writing	3
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¹ Transfer students may substitute other courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.

Environmental Systems Track Requirements

This track combines courses in the social sciences with core science courses to develop broad-based knowledge in Environmental Science, the history and practice of environmental policy, and sociological and philosophical aspects of the environment. This emphasis track will train students interested for careers related to environmental policy and management.

Code	Title	Credits
Required Courses:		
ECON 2201	Principles of Macroeconomics	3
ECON 2202	Principles of Microeconomics	3
GEOL 3310	Geologic Field Methods	3
GEOL 4410	Science in American Society	2
HIST 4430	Global Environmental History	3
MATH 1153	Statistical Reasoning	3
or MATH 3350	Statistical Methods	
PHIL 4455	Environmental Ethics	3
or PHIL 2250	Contemporary Moral Problems	
POLS 4455	Environmental Politics and Policy	3

Select one methods course from the following:

HIST 2291	The Historian's Craft	3
POLS 4453	Public Policy Analysis	3
SOC 3308	Sociological Methods and Social Work Research	3

Select three elective courses, not used to satisfy other requirements, from the following:

GEOL/HIST 4471	Historical Geography of Idaho	3
GLBL 3379	Environment and Geography	3
GLBL 4466	Cultural Geography	3
GLBL 4480	International Parks and Protected Areas	3

HIST 4432	U.S. Environmental History	3
POLS 2221	Introduction to International Relations	3
POLS 4408	Urban Spaces	3
POLS 4409	Community Planning	3
POLS 4453	Public Policy Analysis	3
POLS 4466	Public Lands Policy	3
SOC 3335	Environmental Sociology	3
SOC 4491	Topics in Sociology	3

Or other approved electives

Bachelor of Science in Earth and Environmental Systems, Environmental Systems Track

Required Core Courses

The Required General Courses provide a solid background in Geosciences and other subjects. Environmental Systems include physical, biological and human systems; thus, the program incorporates course work in Biological Sciences, Physical and Social Sciences, and Mathematics. Some of these courses may satisfy General Education requirements.

Code	Title	Credits
GEOL 1107	Real Monsters ¹	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 2292	Geosciences Careers Seminar	1
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4403	Principles of Geographic Information Systems	3
GEOL 4492	Earth and Environmental Systems Seminar	1
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
MATH 1147	College Algebra and Trigonometry (B.A.)	5
or		
MATH 1143 & MATH 1144	College Algebra and Trigonometry	

Recommended:

ENGL 3307	Professional and Technical Writing	3
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¹ Transfer students may substitute other courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.

BS Environmental Systems Track Requirements

This track combines courses in Ecology, Environmental Geosciences, and supporting fields. This emphasis track will train students interested in field-related careers who need to understand the environmental relations between geologic and living systems.

Code	Title	Credits
Select two courses from the following:		
GEOL 4402 & 4402L	Geomorphology and Geomorphology Lab	4
GEOL 4417 & 4417L	Introduction to Soils and Critical Zone Processes and Introduction to Soils and Critical Zone Processes Lab	4
GEOL 4429 & 4429L	Watershed Hydrology and Watershed Hydrology Laboratory	4
GEOL 4430	Principles of Hydrogeology	3

Or other approved courses in related fields.

Select one course from the following:

BIOL 4462 & 4462L	Freshwater Ecology and Freshwater Ecology Lab	4
BIOL 4489	Field Ecology	4
GEOL 4490	Ecosystem Ecology and Global Changes	4

Or other approved course in related fields.

Required Courses:

CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
GEOL 4451	Field Methods in Environmental Sciences	3
MATH 1160 or MATH 1170	Survey of Calculus or Calculus I	3-4
MATH 3350	Statistical Methods	3

Select one elective from the following:

GEOL 4410	Science in American Society	2
GEOL/HIST 4471	Historical Geography of Idaho	3
GLBL 3379	Environment and Geography	3

GLBL 4466	Cultural Geography	3	SOC 3335	Environmental Sociology	3
GLBL 4480	International Parks and Protected Areas	3	Or other approved course in related fields.		
HIST 4430	Global Environmental History	3	Students who are considering graduate studies in a Geosciences field should consider also taking BIOL 3316 Biometry Laboratory, PHYS 1111 General Physics I with PHYS 1113 General Physics I Laboratory or PHYS 1111 General Physics I with PHYS 2213 Engineering Physics I Laboratory.		
HIST 4432	U.S. Environmental History	3			
POLS 4455	Environmental Politics and Policy	3			
PHIL 4455	Environmental Ethics	3			

Bachelor of Science Earth and Environmental Systems, Geospatial Systems Track

Required Core Courses

The Required General Courses provide a solid background in Geosciences and other subjects. Environmental Systems include physical, biological and human systems; thus, the program incorporates course work in Biological Sciences, Physical and Social Sciences, and Mathematics. Some of these courses may satisfy General Education requirements.

Code	Title	Credits
GEOL 1107	Real Monsters ¹	3
GEOL 2204	Fluid Earth	4
GEOL 2205	Solid Earth	4
GEOL 2292	Geosciences Careers Seminar	1
GEOL 3315	Evolution of the Earth's Surface	4
GEOL 4403	Principles of Geographic Information Systems	3
GEOL 4492	Earth and Environmental Systems Seminar	1
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
MATH 1147	College Algebra and Trigonometry (B.A.)	5
or		
MATH 1143 & MATH 1144	College Algebra and Trigonometry	
Recommended:		
ENGL 3307	Professional and Technical Writing	3

¹ Transfer students may substitute other courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.

Geospatial Systems Track Requirements

This track combines courses in Geospatial Sciences, Environmental Geosciences, and supporting fields. This emphasis track will train students interested in geotechnology-related careers with government agencies, private companies, and academic institutions.

Code	Title	Credits
Required Courses:		
GEOL 4404	Advanced Geographic Information Systems	3
GEOL 4407	GPS/GNSS Applications in Research	3
GEOL 4408	GeoTechnology Seminar	2
GEOL 4409	Remote Sensing	3
GEOL 4427	Information Technology for GIS	3
GEOL 4428	Programming for GIS	3
Select one course from the following:		
GEOL 4480	Special Topics in GIS	1-3
GEOL 4481	GeoTechnology Internship	1-3
GEOL 4482	Independent Problems and Studies in Geology	1-3
Required Mathematics Courses:		
MATH 3350	Statistical Methods	3
Select one of the following two courses:		
MATH 1160	Survey of Calculus	3
or		
MATH 1170	Calculus I	4
Select one course from the following:		
GEOL 4410	Science in American Society	2
GEOL/HIST 4471	Historical Geography of Idaho	3
GLBL 3379	Environment and Geography	3
GLBL 4466	Cultural Geography	3
GLBL 4480	International Parks and Protected Areas	3
HIST 4430	Global Environmental History	3
HIST 4432	U.S. Environmental History	3
POLS 4455	Environmental Politics and Policy	3
PHIL 4455	Environmental Ethics	3
SOC 3335	Environmental Sociology	3

Minor in Geology

Code	Title	Credits	In Addition:	
GEOL 1107	Real Monsters	3	Upper Division Geology electives approved by the Department	11
GEOL 2204	Fluid Earth	4		
GEOL 2205	Solid Earth	4		
			Total Credits	22

Minor in GeoTechnology

Core Courses:

Code	Title	Credits
GEOL 4403 & 4403L	Principles of Geographic Information Systems and Principles of GIS Laboratory	3
GEOL 4404	Advanced Geographic Information Systems	3
GEOL 4407	GPS/GNSS Applications in Research	3
GEOL 4408 or BIOL 4418	GeoTechnology Seminar Ecological Topics	1-2
GEOL 4409	Remote Sensing	3
Total Credits		13-14

Electives (at least 5 credits):

Code	Title	Credits
ANTH 4482	Independent Problems in Anthropology	1-3
BIOL 4482	Independent Problems	1-4
GEOL 4427	Information Technology for GIS	3
GEOL 4428	Programming for GIS	3
GEOL 4480	Special Topics in GIS	1-3
GEOL 4481	GeoTechnology Internship	1-3
GEOL 4482	Independent Problems and Studies in Geology	1-3
Total Credits		18-25

Department of Mathematics and Statistics

Program Description	Type	Degree
Mathematics, B.S. (p. 388)	Degree	B.S.
Statistics, B.S. (p. 388)	Degree	B.S.
Mathematics, A.S. (p. 389)	Degree	A.S.
Applied Mathematics, Minor (p. 389)	Minor	
Mathematics, Minor (p. 389)	Minor	
Statistics, Minor (p. 390)	Minor	

Objectives

The undergraduate programs in Mathematics and Statistics have the following objectives:

1. Students in algebra courses develop the algebra skills needed in later courses.
2. Students in general education courses gain an understanding of mathematics as a language in which to express, define, and answer questions about the world.
3. Students in courses that serve the sciences and engineering, particularly calculus and linear algebra courses, develop technical skills, learn to apply mathematical tools, and develop an understanding of the mathematical basis for those tools.
4. Students in statistics courses develop an understanding of the basic concepts of probability and statistics and learn how to use statistical tools in real-life problems.

5. Education students with a mathematics teaching major or minor gain a basic understanding of several areas of mathematics, develop a sense for exploring mathematics, and learn to read, write, and present mathematics.
6. Mathematics majors become acquainted with the major branches of the discipline, learn to read and write mathematics, and develop the mathematical skills and general knowledge necessary for employment or for graduate work in mathematics or other fields.

Mathematics Course Requirements

All mathematics courses have prerequisites. Students place into a course either by completing the prerequisite courses with a grade of C- or better or by achieving appropriate scores on the ACT Mathematics exam, SAT Mathematics exam, or other accepted exam. For placement purposes, prerequisite coursework or placement examinations must have been taken within the last seven years. See the Department of Mathematics and Statistics (<https://isu.edu/math>) for further information.

Students must pass a mathematics course with a grade of C- or better before using that course as a prerequisite for another mathematics or statistics course.

Faculty (p. 386)

MATH Courses (p. 598)

Mathematics and Statistics Faculty

Chair

Derryberry, DeWayne,* Professor, Statistics. B.S. 1988; M.S. 1990, Arizona State University; Ph.D. 1998, Oregon State University. (2006)

Assistant Chair

Zhu, Wenxiang,* Associate Professor, Mathematics. B.S. 1992, M.S. 1995, Fudan University, China; Ph.D. 2002, Iowa State University. (2006)

Professors

Chen, Shu-Chuan 'Grace',* Professor, Statistics. B.A. 1994, National Chung-Hsing University, Taiwan; M.S. 1996, National Donghwa University, Taiwan; Ph.D. 2003, Pennsylvania State University. (2012)

Chen, Yu,* Professor, Mathematics. B.E. 1991, M.S. 1994, Tongji University, China; D.S. 1997, East China Normal University, China; Ph.D. 2002, University of Notre Dame. (2003)

Fisher, Robert J., Jr.,* Professor, Mathematics. B.A. 1975, College of the Holy Cross; Ph.D. 1981, University of Massachusetts. (1989)

Hanin, Leonid G.,* Professor, Mathematics. M.S. 1978, University of Leningrad, Russia; Ph.D. 1985, Steklov Mathematical Institute, Russia. (1997)

Kriloff, Cathy E.,* Professor, Mathematics. B.S. 1990, University of Washington; M.S. 1992, Ph.D. 1995, University of Michigan. (1997)

Laquer, H. Turner,* Professor, Mathematics. B.S. 1977, University of New Mexico; M.A. 1979, Ph.D. 1982, Harvard University. (1989)

Palmer, Bennett,* Professor, Mathematics. B.S. 1979, University of Massachusetts, Amherst; Ph.D. 1986, Stanford University. (2002)

Payne, Tracy,* Professor, Mathematics. B.S. 1988, University of Wisconsin; Ph.D. 1995, University of Michigan. (2001)

Wolper, James S.,* Professor, Mathematics. A.B. 1976, Harvard University; Ph.D. 1981, Brown University. (1991)

Associate Professors

Gryazin, Yury A.,* Associate Professor, Mathematics. B.S. 1986, M.S. 1991, Novosibirsk State University; Ph.D. 1996, Siberian Branch of Russian Academy of Science. (2001)

Zhu, Yunrong,* Associate Professor, Mathematics. B.S. 2000, M.S. 2003, Southeast University, China; Ph.D. 2008, Pennsylvania State University. (2012)

Assistant Professor

Xie, Xiaoxia 'Jessica', Assistant Professor, Mathematics. B.S. 2006, M.S. 2009, Lanzhou University (China); Ph.D. 2014, Auburn University. (2016)

Visiting Assistant Professor

(TBD)

Affiliate Professor

Van Kirk, Robert W., Associate Professor, Mathematics. B.A. 1984; M.S. 1990, Humboldt State University; Ph.D. 1995, University of Utah. (1999)

Senior Lecturers

Martin, Annik, Senior Lecturer, Mathematics. B.A. 1998, Bishops University; M.S. 1999, Dalhousie University. (2001)

Reed, Jason, Senior Lecturer, Mathematics. B.S. 2001, M.S. 2003, Idaho State University. (2003)

Associate Lecturers

Bowen, Randy, Associate Lecturer, Mathematics. B.S. 1999, M.S. 2001, Idaho State University. (2005)

Jones, Pageant L., Associate Lecturer, Mathematics. B.A., 1992, B.S. 1998, M.S. 2000, Idaho State University. (2001)

Kress, Randa L., Associate Lecturer, Mathematics. B.A. 1997, M.S. 1999, Idaho State University. (1995)

Mills, Amy Lea, Associate Lecturer, Mathematics. B.S. 1999, Colorado State University; M.N.S. 2000, Idaho State University. (2000)

Potter, Russell T., Associate Lecturer, Mathematics. M.N.S. 1997, D.A. 2003, Idaho State University. (2002)

Qu, Qingqin, Associate Lecturer, Mathematics. B.S. 2001, Shandong Normal University, China; M.S. 2004, Southeast University, China; Ph.D. 2012, Pennsylvania State University. (2012)

Assistant Lecturers

Alexander, Linda, Assistant Lecturer, Mathematics. B.S. 1998, South Dakota School of Mines & Technology. (2010)

Christensen, Tony, Assistant Lecturer, Mathematics. B.S. 1990, M.S. 1993, Idaho State University. (2014)

Jacobsen, Michael, Assistant Lecturer, Mathematics. B.S. 2010, M.S. 2012, Idaho State University. (2014)

Lundeen, Suzanne R., Associate Lecturer, Mathematics. B.S. 2000, M.S. 2004, D.A. 2007, Idaho State University. (2010)

Adjunct Instructors

Please see the Department website at: www.isu.edu/math/people/

Emeriti

Cresswell, Don, Associate Professor, Mathematics. 1968 - 2000

Ford, Lawrence C.,* Associate Professor, Mathematics. 1984 - 2009

Gironella, Ann Inez,* Associate Professor, Mathematics. 2003 - 2016

Hill, Linda Charlotte, Associate Professor, Mathematics. 1976 - 2006

Hill, Richard D.,* Professor, Mathematics. 1967 - 2012

Kratz, Lawrence J.,* Professor, Mathematics. 1966 - 2010

Lang, Patrick M., Professor, Mathematics. 1985 - 2012

Parker, Stephen K., Associate Professor, Mathematics. 1972 - 2002

Stowe, Dennis C.,* Professor, Mathematics. 1988 - 2016

B.S. Mathematics

The Bachelor of Science program in Mathematics is designed to prepare students to take positions in industry, to pursue graduate training, or to enter the teaching profession. It allows some flexibility in course work which necessitates close cooperation with a mathematics department advisor who should be selected early in the student's career.

Students must fulfill the university's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog).

Mathematics Core

All bachelor degrees offered in the Department of Mathematics and Statistics have a common core consisting of the following six courses:

Code	Title	Credits
CS 1181	Computer Science and Programming I ¹	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3
MATH 3326	Elementary Analysis	3
Total Credits		21

¹ The two courses, ME 1165 Structured Programming and ME 2266 Symbolic Programming, may be substituted for CS 1181.

B.S. Statistics

The Bachelor of Science program in Statistics is designed to prepare students to take positions in industry or pursue graduate training.

Students must fulfill the university's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog.)

Mathematics Core

All bachelor degrees offered in the Department of Mathematics and Statistics have a common core consisting of the following six courses:

Code	Title	Credits
CS 1181	Computer Science and Programming I ¹	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3
MATH 3326	Elementary Analysis	3
Total Credits		21

¹ The two courses, ME 1165 Structured Programming and ME 2266 Symbolic Programming, may be substituted for CS 1181.

Required Courses

Code	Title	Credits
Math Core (See above)		21
MATH 2287	Foundations of Mathematics	3
MATH 3360	Differential Equations	3
MATH 4407	Modern Algebra I	3
MATH 4423	Introduction to Real Analysis I	3
Plus ONE of the following courses:		3
MATH 3327	Vector Analysis	
MATH 3335	Elementary Number Theory	
MATH 3343	Modern Geometry I	
MATH 3352	Introduction to Probability	
MATH 3362	Introduction to Complex Variables	
Plus 12 more credits of 4000-level mathematics coursework, which includes completing two of the following sequences:		12
MATH 4407 & MATH 4408	Modern Algebra I and Modern Algebra II	
MATH 4423 & MATH 4424	Introduction to Real Analysis I and Introduction to Real Analysis II	
MATH 4441 & MATH 4442	Introduction to Numerical Analysis I and Introduction to Numerical Analysis II	
MATH 4450 & MATH 4451	Mathematical Statistics I and Mathematical Statistics II	

Required Courses

Code	Title	Credits
Mathematics Core (Shown above)		21
MATH 3350	Statistical Methods	3
MATH 3352	Introduction to Probability	3
MATH 4450 & MATH 4451	Mathematical Statistics I and Mathematical Statistics II	6
MATH 4457	Applied Regression Analysis	3
MATH 4458	Experimental Design	3
Additional Courses (9 credits):		9
A student must take 9 additional credits from the following list to complete the degree. With departmental approval, 3 of the 9 credits may be completed by taking an appropriate advanced course (4000-level) in another field such as Biology, Economics, etc.		
MATH 3360	Differential Equations	
MATH 4406	Advanced Linear Algebra	
MATH 4423	Introduction to Real Analysis I	
MATH 4424	Introduction to Real Analysis II	
MATH 4441	Introduction to Numerical Analysis I	
MATH 4442	Introduction to Numerical Analysis II	
MATH 4453	Topics in Statistics ¹	
MATH 4459	Applied Multivariate Analysis	

¹ This is a 1-3 credit course, repeated for up to 3 credits.

A.S. Mathematics

Students seeking an Associate of Science degree in Mathematics must complete the following:

Code	Title	Credits
General Education Objectives for the Bachelor of Science (minimum 36 cr) ¹		
One of the two tracks described below. Track A is designed to provide the student with a broad overview of basic topics in mathematics. Track B is designed to provide the student with lower-division coursework generally expected for a major or minor in mathematics.		
Track A		
MATH 1123	Math in Modern Society	3
MATH 1127	The Language of Mathematics	3
MATH 1130	Finite Mathematics	3
MATH 1144	Trigonometry ²	2
MATH 1160	Survey of Calculus	3
MATH 1153	Statistical Reasoning	3

CS 1181	Computer Science and Programming I	3
Track B		
CS 1181	Computer Science and Programming I	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2287	Foundations of Mathematics	3
Approved MATH electives		3
Electives to bring total to 60 credits		

¹ The number of credits required for the General Education requirements varies depending on the student's performance on proficiency or placement tests in English, foreign languages, and mathematics.

² MATH 1144 may be waived given a sufficient score on the Mathematics Placement Exam or the Mathematics Sub-Test of the ACT or SAT.

Minor in Applied Mathematics

Mathematics Core

All bachelor degrees offered in the Department of Mathematics and Statistics have a common core consisting of the following six courses:

Code	Title	Credits
CS 1181	Computer Science and Programming I ¹	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3
MATH 3326	Elementary Analysis	3
Total Credits		21

¹ The two courses, ME 1165 Structured Programming and ME 2266 Symbolic Programming, may be substituted for CS 1181.

Minor in Mathematics

Mathematics Core

All bachelor degrees offered in the Department of Mathematics and Statistics have a common core consisting of the following six courses:

Code	Title	Credits
CS 1181	Computer Science and Programming I ¹	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3

Required Courses

Code	Title	Credits
Mathematics Core (See above)		21
MATH 3360	Differential Equations	3
Select ONE of the following:		3
MATH 3310	Mathematical Modeling	
MATH 3352	Introduction to Probability	
MATH 4405	Numerical Linear Algebra	
MATH 4421	Advanced Engineering Mathematics I	
MATH 4441	Introduction to Numerical Analysis I	
MATH 4463	Topics in Applied Mathematics	
MATH 4465	Partial Differential Equations	

MATH 3326	Elementary Analysis	3
Total Credits		21

¹ The two courses, ME 1165 Structured Programming and ME 2266 Symbolic Programming, may be substituted for CS 1181.

Required Courses

Code	Title	Credits
Mathematics Core (See above)		21
Select TWO of the following:		6
MATH 3327	Vector Analysis	

MATH 3335	Elementary Number Theory	MATH 4407	Modern Algebra I
MATH 3343	Modern Geometry I	MATH 4408	Modern Algebra II
MATH 3352	Introduction to Probability	MATH 4423	Introduction to Real Analysis I
MATH 3360	Differential Equations	MATH 4424	Introduction to Real Analysis II
MATH 3362	Introduction to Complex Variables	MATH 4444	Modern Geometry II

Minor in Statistics

Mathematics Core

All bachelor degrees offered in the Department of Mathematics and Statistics have a common core consisting of the following six courses:

Code	Title	Credits
CS 1181	Computer Science and Programming I ¹	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3
MATH 3326	Elementary Analysis	3
Total Credits		21

¹ The two courses, ME 1165 Structured Programming and ME 2266 Symbolic Programming, may be substituted for CS 1181.

Required Courses

Minor in Statistics

Required Courses (27 credits):

Code	Title	Credits
Mathematics Core (See above)		21
MATH 3350	Statistical Methods	3
MATH 3352	Introduction to Probability	3
Select ONE of the following:		3
MATH 4450	Mathematical Statistics I	
MATH 4451	Mathematical Statistics II	
MATH 4453	Topics in Statistics ¹	
MATH 4457	Applied Regression Analysis	
MATH 4458	Experimental Design	
MATH 4459	Applied Multivariate Analysis	
Total Credits		30

¹ This is a 1-3 credit course, repeated for up to 3 credits

Physics, Nuclear and Electrical Engineering

Program Description	Type	Degree
Physics, B.S. (p. 395)	Degree	B.S.
Physics, B.A. (p. 395)	Degree	B.A.
Physics, A.S. (p. 395)	Degree	A.S.
Physics, Minor (p. 396)	Minor	
Nuclear Engineering, B.S. (p. 397)	Degree	B.S.
Health Physics, B.S. (p. 397)	Degree	B.S.
Health Physics, A.S. (p. 398)	Degree	A.S.
Electrical Engineering, B.S. (p. 399)	Degree	B.S.
Electrical Engineering Technology, B.S. (p. 399)	Degree	B.S.

Physics

Students who wish to major in physics will take courses that will prepare them for industrial or governmental positions or for graduate study in physics or allied fields.

The Department of Physics offers two undergraduate degree programs as well as a minor in physics. The Bachelor of Arts and the minor are designed for students who desire a flexible program so they can develop interdisciplinary competence. The Bachelor of Science degree places greater emphasis on physics and is designed to prepare students for careers in physics or a closely allied profession. This program consists of a set of required core courses plus a selection of courses in a particular field. The core courses include the basic physics and mathematics courses that serve as a foundation for more advanced study. A student planning to do graduate work in physics should elect to complete the Bachelor of Science in Physics.

The common objectives for students of our undergraduate programs in physics include developing: (1) broad, fundamental technical skills and knowledge, (2) strong communication skills, and (3) the capability to think critically and work independently. Each of these objectives has a "level" that is appropriate for the degree.

For the B.A. degree in physics, the technical objectives are mastery of calculus, ordinary differential equations, linear algebra, general physics, modern physics, and student-selected areas of classical mechanics, quantum mechanics, electromagnetism, and methods of nuclear measurements. For the B.S. degree in physics, the technical objectives are the learning goals of the B.A. degree, plus additional hands-on research laboratory experience and further knowledge in solid-state physics, statistical physics, nuclear physics, optics, and the conduct of research. The communication objectives at the B.A. and B.S. levels are writing and speaking skills that are sufficient for graduates to represent themselves and their organizations at regional or national scientific meetings. Our expectations are that these students will obtain critical thinking skills and an ability to work independently at a level that will require minimal or modest supervision of either management or a more senior scientist.

Nuclear Engineering

ISU offers a B.S. degree in Nuclear Engineering and M.S. and Ph.D. degrees in Nuclear Science and Engineering. The field of nuclear engineering involves harnessing the energy of the atomic nucleus for many productive applications, such as electricity production in nuclear power plants and medical diagnostics and treatment using radiation from the nucleus. The B.S. degree coursework plan provides for development of a strong foundation in mathematics and the physical sciences in the first few semesters. Upon this foundation are built

the key components of nuclear engineering: nuclear and radiation physics, radiation detection and measurement, reactor physics and kinetics, nuclear power production, and the nuclear fuel cycle.

The B.S. degree in nuclear engineering will prepare the student for work in industry, government, and university settings in areas such as nuclear facility operations and support, reactor design and development, radioactive waste management, and nuclear security and safeguards.

Accreditation

The Bachelor of Science (B.S.) program in Nuclear Engineering (NE) is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Educational Objectives for the Degree Program in Nuclear Engineering

- Our graduates will be active in the nuclear industry or related fields, making contributions to its advancement, either in industry, research, or academics.
- Our graduates will have a record of accomplishment in the nuclear industry.
- Our graduates will engage in lifelong learning, keeping abreast of advancements in their fields.

Health Physics

ISU offers the A.S., B.S., and M.S. options in Health Physics. Health Physics, an applied science, is concerned with the protection of humans and their environment from the possible harmful effects of radiation while providing for its beneficial uses. Health Physics is a multi-disciplined profession that incorporates aspects of both the physical and biological sciences. The B.S. option in Health Physics will prepare the student for work in government, university, medical, or industrial settings dealing with such areas as operational radiation safety, regulatory issues, and environmental quality. Successful B.S. students receive a Bachelor of Science in Health Physics.

To declare a major in Health Physics, a student must have completed at least 24 semester hours and not be on probation. Declaration of major should be done as soon as possible in the student's program. For further details, please consult staff of the Department of Nuclear Engineering and Health Physics.

Accreditation

The Bachelor of Science (B.S.) and Master of Science (M.S.) programs in Health Physics are accredited by the Applied Sciences Accreditation Commission of ABET, <http://www.abet.org>. Students may enter the M.S. program in Health Physics from several undergraduate majors including health physics, physics, chemistry, biology, and other science or engineering majors. Additional course work to correct deficiencies may be necessary.

The Idaho State University Health Physics program is evaluated by periodically monitoring a series of programmatic outcomes that are used to indicate the extent to which our objectives are being accomplished and to provide information by which the program may be modified to optimize accomplishing these objectives.

Educational Objectives for the Degree Program in Health Physics

The objective of the Idaho State University Health Physics program is to produce Health Physicists with:

- Fundamental technical knowledge,
- Strong written and verbal communication skills,
- Well-developed professional judgment with the capability to think critically,
- Capability for solving applied health physics problems,
- The ability to work independently, and
- A thorough understanding of professional ethics

Students earning either degree in the Health Physics program must complete 8 of the 9 University General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). Some of the courses listed as degree requirements will also satisfy or partially satisfy General Education Objectives, as noted.

Electrical Engineering

General Information

Idaho State University electrical engineering graduates are successfully employed in many areas. Many have chosen to continue advanced studies in a variety of specialized engineering disciplines throughout the region and nation. Every student entering electrical engineering is assigned a faculty advisor to guarantee an appropriate plan of study and to ensure continuity throughout the program. Each student completes university general education courses and electrical engineering program requirements. A student who pursues a double major should regularly consult a faculty member from each of the two major programs.

Students entering electrical engineering should have adequate preparation in algebra and trigonometry or higher to enter the calculus sequence. Students not entering at the calculus level will not be eligible to register for electrical engineering courses until meeting the mathematics requirements. This may result in a delay in graduation from the program. Other academic opportunities available include a combined MBA/BSEE degree program, as well as a BSEET degree in electrical engineering technology. Students who are interested in these degree programs should consult the Electrical Engineering Program Director for further details.

General Education Requirements

Students working toward the Bachelor of Science degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits). See the General Education Requirements in the Academic Information section of the catalog.

Fundamentals of Engineering (FE) Exam

Electrical engineering students are encouraged to take the Fundamentals of Engineering (FE) exam during their senior year, while the breadth of the engineering material covered on the examination is still fresh in their minds. This exam is considered the first step in professional licensure for engineers.

Electrical Engineering Academic Rules and Policies

A current Idaho State University electrical engineering major student who intends to transfer an engineering course to Idaho State University must obtain prior approval for the transfer either via transfer credit review (petition process) or through existing program articulation.

Transfer credits must be posted to the student's ISU transcript prior to registering for any course that has the transfer course credits as a prerequisite or co-requisite.

To maintain "academic satisfactory progress" and avoid academic probation and/or academic dismissal, undergraduate students must maintain a cumulative Idaho State University GPA of 2.0 or higher every semester.

Accreditation

The Bachelor of Science (B.S.) program in Electrical Engineering (EE) is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Educational Objectives

- **PEO1 Depth and Breadth:** Produce graduates who demonstrate broad and in-depth knowledge in the practice of, or advanced study of, electrical engineering.
- **PEO2 Career Development:** Produce graduates who will demonstrate and maintain the necessary knowledge and skills throughout their careers to solve problems in the complex modern work environment.
- **PEO3 Professionalism:** Produce graduates who demonstrate professional responsibilities.

Student Outcomes

Idaho State University's Electrical Engineering program has the following Student Outcomes:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- A recognition of the need for, and an ability to engage in, life-long learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Declaring an Electrical Engineering Major

To declare an Electrical Engineering major, a student must meet with an EE faculty advisor to develop a plan of study leading to degree completion. Declaration of major should be done as soon as possible upon consultation with the program staff.

Faculty (p. 393)

Physics (PHYS) Courses (p. 633)

Nuclear Engineering (NE) Courses (p. 611)

Health Physics (HPHY) Courses (p. 583)

Electrical Engineering (EE) Courses (p. 551)

Electrical Engineering Technology (EET) Courses (p. 553)

Physics, Nuclear and Electrical Engineering Faculty

Department Chair and Associate Professor

Dunzik-Gouger, Mary Lou,* Associate Dean, College of Science and Engineering; Department Chair, Physics, Nuclear and Electrical Engineering; Reactor Administrator; Associate Professor, Nuclear Engineering. B.S. 1987, M.S. 1997, Ph.D. 2004, Pennsylvania State University. (2004)

PHYSICS

Program Director and Professor

Shropshire, Steven L.,* Program Director and Professor, Physics. B.S. 1985, M.S. 1988, Ph.D. 1991, Washington State University. (1991)

Professors

Dale, Daniel S.,* Professor, Physics. B.S. 1984, Stanford University; M.S. 1985, Ph.D. 1991, University of Illinois. (2006)

Forest, Tony,* Professor, Physics. B.S. 1987, University of Southern Colorado; M.A. 1991, Western Michigan University; Ph.D. 1998, University of Illinois, Urbana-Champaign. (2006)

Research Professor

Spielman, Rick, Research Professor, Physics. Ph.D. 1978, University of California, Davis. (2013)

Associate Professors

McNulty, Dustin, Associate Professor, Physics. B.S. 1994, James Madison University; M.A. 1997, Ph.D. 2002, University of Virginia. (2010)

Tatar-Ivanov, Erdinch R. "Eddie,"* Associate Professor, Physics. Diploma, Sophia University, Bulgaria; M.S. 1997, M.S. 2000, Ph.D. 2000, University of Notre Dame. (2001)

Assistant Professor

Stonaha, Paul, Assistant Professor, Physics. B.A. 2006, Alfred University; M.S. 2007, Ph.D. 2013, Indiana University. (2018)

Assistant Lecturer

Bernabee, Kirsten, Assistant Lecturer, Physics. B.S. 1999, M.N.S. 2007, Idaho State University. (2009)

Adjunct Faculty

Franckowiak, Robert

Hoskins, Anna

Millward, Steven

Affiliate Faculty

Khandaker, Mahbub

Wells, Doug

Emeriti

Cole, Philip L.,* Professor, Physics. 2004-2018

Harmon, J. Frank, Director and Research Professor, Idaho Accelerator Center; Professor, Physics. 1969-2008

Parker, Barry R., Professor, Physics. 1967-1997

NUCLEAR ENGINEERING AND HEALTH PHYSICS

Program Director and Professor

Pope, Chad, Program Director and Professor, Nuclear Engineering. B.S. 1989, M.S. 1993, Ph.D. 2011, Idaho State University. (2012)

Professors

Brey, Richard R.,* Associate Vice President for Academic Affairs; Transitional Director of Technical Safety; Program Director and Professor, Health Physics. B.S. 1988, M.S. 1990, Ph.D. 1994, Purdue University. (1994)

Imel, George R.,* Professor, Nuclear Engineering and Health Physics. B.S./A.B. 1971, Lafayette College; M.S. 1973, Ph.D. 1977, Pennsylvania State University. (2007)

Kunze, Jay F., Professor, Nuclear Engineering and Health Physics; Reactor Administrator, Nuclear Reactor Office. B.S. 1954, M.S. 1955, Ph.D. 1959, Carnegie Institute of Technology. (1995)

Professor Emeritus

Gesell, Tom, Professor Emeritus, Health Physics. B.S., San Diego State University; M.S., Ph.D., University of Tennessee. (1991)

Associate Professor

Dunzik-Gouger, Mary Lou,* Associate Dean, College of Science and Engineering; Department Chair, Physics, Nuclear and Electrical Engineering; Reactor Administrator; Associate Professor, Nuclear Engineering. B.S. 1987, M.S. 1997, Ph.D. 2004, Pennsylvania State University. (2004)

Assistant Professor

LaBrier, Daniel, Assistant Professor, Nuclear Engineering. Ph.D. 2013, Idaho State University. (2019)

Research Professors

Schultz, Richard, Research Professor, Nuclear Engineering, Ph.D. Idaho State University. (2013)

Kerby, Leslie, Research Assistant Professor, Nuclear Engineering. Ph.D. University of Idaho (2015)

ELECTRICAL ENGINEERING

Program Director and Associate Professor

Chiu, Steve C.,* Program Director and Associate Professor, Electrical Engineering. B.S.E.E. 1990, University of Illinois at Chicago; M.E.M. 1995, Ph.D. 2004, Northwestern University. (2005)

Associate Program Director and Professor

Stuffle, Roy Eugene,* Associate Program Director and Professor, Electrical Engineering. B.S.E.E. 1966, M.S.E.E. 1969, Rose Polytechnic Institute; M.S.B.A. 1975, Indiana University; Ph.D.E.E. 1979, Purdue University. (1989)

Professor

Mousavinezhad, Seyed Hossein,* Professor, Electrical Engineering. B.S. 1972, National Taiwan University; M.S. 1973, Ph.D. 1977, Michigan State University. (2007)

Associate Professors

Ellis, Mikle V.,* Associate Professor, Electrical Engineering. B.S. 1983, Brigham Young University; M.S. 1984, Rensselaer Polytechnic Institute; Ph.D. 1994, Virginia Polytechnic and State University. (1999)

Kantabutra, Vitit,* Associate Professor, Electrical Engineering. B.E. 1979, McGill University; M.S.E. 1982, Ph.D. 1985, Johns Hopkins University. (1995)

Visiting Faculty

Baldwin, Thomas L., Visiting Professor, Electrical Engineering.

Emeritus

Naidu, Subbaram D., Associate Dean and Professor, Electrical Engineering. 1988-2014.

B.A. Physics

In addition to degree requirements listed below, students must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog). Of the courses below, MATH 1170 will satisfy General Education Objective 3, while together, any of the lower-division PHYS choices below will partially satisfy General Education Objective 5.

Code	Title	Credits
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3
At least 24 credits of Physics, including:		24

PHYS 2211 & PHYS 2212 or PHYS 1111 & PHYS 1112	Engineering Physics I and Engineering Physics II General Physics I and General Physics II	6-8
PHYS 2213 & PHYS 2214 or PHYS 1113 & PHYS 1114	Engineering Physics I Laboratory and Engineering Physics II Laboratory General Physics I Laboratory and General Physics II Laboratory	2
PHYS 3301	Modern Physics	3
11-13 credits of electives (depending upon the introductory sequence) with at least 6 credits of 4000-level courses (PHYS 4492 cannot be counted toward the latter requirement).		11-13

B.S. Physics

In addition to degree requirements below, students must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits--see the Academic Information section of this catalog). Of the courses below, MATH 1170 will satisfy General Education Objective 3, while together, the CHEM and lower-division PHYS requirements will satisfy General Education Objective 5.

Code	Title	Credits
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3
MATH 4421 & MATH 4422	Advanced Engineering Mathematics I and Advanced Engineering Mathematics II	6

or PHYS 4461 & PHYS 4462	Introduction to Mathematical Physics I and Introduction to Mathematical Physics II	
PHYS 2211 & PHYS 2212	Engineering Physics I and Engineering Physics II	8
PHYS 2213 & PHYS 2214	Engineering Physics I Laboratory and Engineering Physics II Laboratory	2
PHYS 3301	Modern Physics	3
PHYS 3313	Intermediate Laboratory I	2
PHYS 4403 & PHYS 4404	Advanced Modern Physics I and Advanced Modern Physics II	6
PHYS 4414	Electronic Instrumentation and Measurement	3
PHYS 4415	Statistical Physics	3
PHYS 4421 & PHYS 4422	Electricity and Magnetism I and Electricity and Magnetism II	6
PHYS 4483	Theoretical Mechanics	4
PHYS 4492	Colloquium in Physics	1
Plus 5 additional 4000-level PHYS credits		5

A.S. Physics

Students seeking an Associate of Science degree in Physics must complete the following:

Code	Title	Credits
General Education Objectives for the Bachelor of Science (minimum 36 cr) ¹		
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4

MATH 2275	Calculus III	4
PHYS 2211 & PHYS 2213	Engineering Physics I and Engineering Physics I Laboratory	5
PHYS 2212 & PHYS 2214	Engineering Physics II and Engineering Physics II Laboratory	5
Electives to bring total to 60 cr		29
Total Credits		60

¹ The number of credits required for the General Education requirements varies depending on the student's performance on proficiency or placement tests in English, foreign languages, and mathematics.

Minor in Physics

Code	Title	Credits
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3
PHYS 2211 & PHYS 2212	Engineering Physics I and Engineering Physics II	8
PHYS 3301	Modern Physics	3
PHYS 4403	Advanced Modern Physics I	3
In Addition:		
Physics electives approved by the department		4

B.S. Nuclear Engineering

Nuclear engineering is a field with exciting and expanding opportunities. Careers range from operating nuclear power plants to research for the future of nuclear reactor design, nuclear fuels, reprocessing and waste disposal. Other areas include space propulsion, medical treatment and homeland security applications.

Job prospects in nuclear engineering are good, with opportunities as close as the Idaho National Laboratory (INL) and spanning across the U.S. and the world. Salaries for nuclear engineers are among the highest for all engineering professions. Graduates with a B.S. may start at an annual income greater than \$60,000.

Students earning this degree must complete 8 of the 9 University General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 57) described in the Academic Information section of this catalog). The program of study for the Bachelor of Science in Nuclear Engineering degree totals 122 credits (minimum) as follows. Some of the required courses also satisfy or partially satisfy General Education Objectives, as noted.

Code	Title	Credits
CE 1105	Engineering Graphics	2
CE/ME 2210	Engineering Statics	3
CE/ME 2220	Engineering Dynamics	3
CE/ME 3350	Mechanics of Materials	3
CE/ME 3341	Fluid Mechanics	3
CE 3361	Engineering Economics and Management	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
CS 1181	Computer Science and Programming I (Satisfies General Education Objective 7)	3

EE 2240	Electrical Circuits I	3
EE 4416	Applied Engineering Methods	3
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
HPHY 4416	Introduction to Nuclear Measurements	3
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4
MATH 2240	Linear Algebra	3
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3
MATH 4421	Advanced Engineering Mathematics I	3
ME 3307	Thermodynamics	3
ME 3322	Mechanical Engineering Materials	3
ME 4443	Thermal Fluids Laboratory	1
ME 4476	Heat Transfer	3
NE 1120	Introduction to Nuclear Engineering	1
NE 3301	Nuclear Engineering I	3
NE 3302	Nuclear Engineering II	3
NE 4419	Energy Systems and Nuclear Power	3
NE 4445	Reactor Physics	3
NE 4446	Nuclear Fuel Cycle Systems	3
NE 4447	Nuclear Systems Laboratory	1
NE 4451	Nuclear Seminar	1
NE 4496A	Project Design I	1
NE 4496B	Project Design II	3
PHYS 2211	Engineering Physics I (Partially satisfies General Education Objective 5)	4
PHYS 2212	Engineering Physics II	4
	Nuclear Engineering Elective	3
	Engineering Elective	3

B.S. Health Physics

The following courses are required in addition to completion of 8 of the 9 General Education Objectives for the B.S. degree (a minimum of 36 credits-- see the General Education Requirements (p. 57) described in the Academic Information section of this catalog).

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4

CHEM 1102 & CHEM 1103	Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory (Partially satisfies General Education Objective 5)	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CS 1181	Computer Science and Programming I (Satisfies General Education Objective 7)	3
ENGL 3307	Professional and Technical Writing	3
HPHY 4416	Introduction to Nuclear Measurements	3
HPHY 4431	Radiation Physics I	3
HPHY 4432	Radiation Physics II	3
HPHY 4433	External Dosimetry	3

HPHY 4434	Internal Dosimetry	3	MATH 2275	Calculus III	4
HPHY 4455	Topics in Health Physics I	2	MATH 3350	Statistical Methods	3
HPHY 4456	Topics in Health Physics II	2	PHYS 2211	Engineering Physics I	8
HPHY 4480	Health Physics Capstone Course	3	& PHYS 2212	and Engineering Physics II	
HPHY 4488	Advanced Radiobiology	3	PHYS 2213	Engineering Physics I Laboratory	2
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4	& PHYS 2214	and Engineering Physics II Laboratory	
MATH 1175	Calculus II	4	NE 4451	Nuclear Seminar	1

A.S. Health Physics

Admission to this program requires approval of the Department Chair.

The objective of the Idaho State University program that awards an Associate of Science in Health Physics is to develop an individual to assume the role of a health physics technician (sometimes referred to as Radiological Control Technician or RCT) with the knowledge in radiological and biological sciences appropriate for this career option. That same knowledge serves as the basis for certification by the National Registry of Radiation Protection Technologist (NRRPT). Students completing this program will develop the fundamental skills important to life-long learning and advancing within the discipline of Health Physics.

Students must fulfill 8 of the 9 University General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog.)

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially Satisfies General Education Objective 5)	4
BIOL/HPHY 3307	Radiobiology	2
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially Satisfies General Education Objective 5)	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ENGL 1102	Writing and Rhetoric II (Partially Satisfies General Education Objective 1)	3
ECON 1100	Economic Issues (Partially Satisfies General Education Objective 6)	3
MATH 1147	College Algebra and Trigonometry	5
or		
MATH 1143 & MATH 1144	College Algebra and Trigonometry	5
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
PHIL 1101	Introduction to Philosophy (Partially Satisfies General Education Objective 4)	3
PHYS 1111	General Physics I	3
PHYS 1113	General Physics I Laboratory	1
PHYS 1112	General Physics II	3

PHYS 1114	General Physics II Laboratory	1
PSYC 1101	Introduction to Psychology (Partially Satisfies General Education Objective 6)	3
HPHY 2217	RCT Internship	3
HPHY 2218	Fundamentals of Radiation Protection Physics	3
HPHY 2219	RCT Internship II	3
HPHY 2225	Radiation Protection Instrumentation	3
HPHY 2226	Radiation Protection I	3
HPHY 2227	Radiation Protection II	3
HPHY 2228	Health Physics Regulations	3
HPHY 3300	Medical Electronics	2

B.S. Electrical Engineering

Including the university's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 57) in the Academic Information section of this catalog), the program of study for the Bachelor of Science in Electrical Engineering degree totals a minimum of 120 credits as follows:

Required Courses for Electrical Engineering Major:

Code	Title	Credits
CHEM 1111	General Chemistry I (Partially Fulfills General Education Objective 5)	4
CHEM 1111L	General Chemistry I Lab (Partially Fulfills General Education Objective 5)	1
CS 1181	Computer Science and Programming I	3
ENGL 3307	Professional and Technical Writing	3
MATH 1170	Calculus I (Fulfills General Education Objective 3)	4
MATH 1175	Calculus II	4
MATH 2240	Linear Algebra	3
MATH 2275	Calculus III	4
MATH 3360	Differential Equations	3
PHYS 2211	Engineering Physics I (Partially Fulfills General Education Objective 5)	4
PHYS 2212	Engineering Physics II (Partially Fulfills General Education Objective 5)	4
EE 1101	Electrical Engineering and Society	1
EE 2240	Electrical Circuits I	3
EE 2240L	Electrical Circuits I Laboratory	1
EE 2274	Introduction to Digital Systems	3
EE 2274L	Introduction to Digital Systems Laboratory	1
EE 3325	Electromagnetics	3
EE 3329	Introduction to Electronics	3
EE 3301	Software Methodology and Tools for Electrical Engineering	3
EE 3340	Electrical Circuits II	3
EE 3340L	Electrical Circuits II Laboratory	1
EE 3345	Signals and Systems	3
EE 4416	Applied Engineering Methods	3
EE 4418	Communication Systems	3

EE 4426	Computer Architecture and Organization	3
EE 4427	Embedded Systems Engineering	2
EE 4427L	Embedded Systems Engineering Laboratory	1
EE 4429	Advanced Electronics	3
EE 4429L	Advanced Electronics Lab	1
EE 4472	Electrical Machines and Power	3
EE 4472L	Electrical Machines and Power Laboratory	1
EE 4473	Automatic Control Systems	3
EE 4475	Digital Signal Processing	3
EE 4495	Senior Seminar	3
EE 4496	Project Design	3
In Addition:		
EE Elective		3
Total Credits		97

ELECTIVE SELECTIONS

Consult with your advisor when selecting electives, as there may be other new or special courses available.

EE Electives: The following courses are pre-approved: (Note that non-EE courses may have prerequisites that are not part of the EE program.)

Code	Title	Credits
EE 4432	Introduction to VLSI Systems	3
EE 4433	Mixed Signal Design and Synthesis	3
EE 4474	Advanced Circuit Theory	3
EE 4476	Semiconductor Processing and Fabrication	3
EE 4478	Semiconductor Devices	3
EE 4479	Advanced Semiconductor Devices	3
EE 4482	Principles of Power Electronics	3
EE 4491	Digital Control Systems	3
ME 4405 & ME 4406	Measurement Systems Design and Measurement Systems Laboratory	4
ME 4425	Mechatronics	3

B.S. Electrical Engineering Technology

The Bachelor of Science in Electrical Engineering Technology (BSEET) program is a two-year program intended to supplement the following two-year Associate of Applied Science programs offered by the ISU College of Technology: Energy Systems Electrical Engineering Technology, Energy Systems Instrumentation Engineering Technology, and Energy Systems Wind Engineering Technology. Previous graduates of those programs may directly enter the BSEET program. All students earning a B.S. in Electrical Engineering Technology must complete all of ISU's General Education requirements. The program requires 54 credits of core and optional courses plus completion of all of ISU's General Education requirements.

Code	Title	Credits
Core Courses Required for Electrical Engineering Technology Major:		
ENGL 1102	Writing and Rhetoric II (Partially Satisfies General Education Objective 1)	3
ENGL 3307	Professional and Technical Writing	3
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4

MATH 3360	Differential Equations	3
CE 3361	Engineering Economics and Management	3
EET 2240	Introduction to Electrical Circuits	3
EET 2274	Introduction to Digital Systems	3
EET 2275	Introduction to Digital Systems Laboratory	1
EET 3340	Fundamentals of Electrical Devices	3
EET 3342	Fundamentals of Electrical Devices Laboratory	1
EET 3345	Signals and Systems	3
EET 4400	Senior Seminar	1
EET 4426	Computer Architecture and Organization	3
EET 4427	Embedded Systems Engineering	2
EET 4427L	Embedded Systems Laboratory	1
EET 4472	Electrical Machines and Power	3
EET 4472L	Electrical Machines and Power Laboratory	1
EET 4496	Senior Project	3
Option Courses (see below)		6
Total Credits		54

Code	Title	Credits
Electronics Option		
EET 3329	Introduction to Electronics	3
EET 4429	Advanced Electronics	3
Communications Option		
EET 3329	Introduction to Electronics	3
EET 4418	Communication Systems	3
Signal Processing and Control Option		
EET 4473	Automatic Control Systems	3
EET 4475	Digital Signal Processing	3

College of Technology

Overview

The College of Technology is the largest post-secondary technical institution in Idaho. The College provides high quality Career & Technical Education (CTE) programs that are designed to meet the employment and economic development needs of business and industry.

Students are offered a distinctive opportunity to acquire a Career & Technical Education in a university setting and may participate in a wide range of campus activities in addition to completing occupationally focused programs of study. Programs of study include technical certificates; associate and baccalaureate degree programs; adult basic education; and continuing education/workforce training.

Students can develop leadership skills by participating in organizations such as the Associated Students of Idaho State University (ASISU), the Business Professionals Association (BPA), SkillsUSA, and other College of Technology student organizations.

Mission

The mission of the College of Technology is to provide students with technical skills, knowledge and attitudes necessary for successful performance in a highly effective workplace.

Acceptance

An acceptance letter is sent to all accepted College of Technology applicants. An advance registration deposit, which will be applied to the first registration fee, is required of applicants upon acceptance into a College of Technology program to assure a place in the program.

Non-attendance Policy

Students not attending the first day of class may be dis-enrolled due to non-attendance. If students do not attend program courses the semester they were accepted, their seat in the program will be forfeited and they must meet with an advisor to obtain a new seat.

Change of Curriculum

Students who want to change registration from the College of Technology to academic courses are required to meet the university's academic admission standards such as ACT/SAT requirements for students under the age of 21. Students should contact the College of Technology's Student Services Office to initiate the process.

Credits

One College of Technology credit is equivalent to approximately 15 hours of lecture, 30 hours of laboratory, or 45 hours of clinical or internship.

Credits Granted for Previous Training or Experience

A student seeking credit for prior training, education, or work experience may gain credit through various ways. See Alternative Credit Opportunities (<http://coursecat.isu.edu/undergraduate/academicinformation/alternativcreditopportunities>) for detailed descriptions of options and policies.

General Education Requirements

Students seeking an Associate of Applied Science (A.A.S.) degree must complete a minimum of fifteen (15) credits of General Education coursework. The fifteen credits must include:

1. Written Communication (ENGL 1101 or ENGL 1101P) 3-4 credits
2. Oral Communication (COMM 1101) 3 credits
3. Mathematical Ways of Knowing (any Objective 3 (p. 57) course) 3 credits
4. Social and Behavioral Ways of Knowing (any Objective 6 (p. 57) course) 3 credits
5. Three (3) credit hours towards any unfulfilled Objective (p. 57).

TGE 1140 (Objective 3), TGE 1257 (Objective 4), and TGE 1150 (Objective 6) are recommended if other general education courses are not required by the program. See specific program requirements.

This language follows Idaho State Board of Education Statewide General Education policies and procedures. Please visit the link below for more information.

<https://boardofed.idaho.gov/board-policies-rules/board-policies/higher-education-affairs-section-iii/iii-n-general-education/>

Progression

Progression into succeeding courses of study will require successful completion (passing grades as defined by the program) of required coursework for each semester/session.

Change of Program

To change programs within the College, a currently enrolled student must see an advisor in the Student Services Office.

If a student is on probation and changes to another program, the probation status is transferred to the new program. If a student is on academic dismissal and changes programs, the dismissal status transfers to the new program. Please refer to the Academic Standing (p. 76) section of the Undergraduate catalog for a complete description of Idaho State University's Scholastic Probation and Dismissal Policy.

Application for Graduation

Please see Applying to Graduate (p. 82) for information on how and when to apply to graduate.

To graduate from a College of Technology program, a student must have an accumulative grade point average of 2.0 (without any F grades based on the required College of Technology courses) in the enrollee's program of study. A student must complete an application for graduation and pay a diploma fee.

Certificates

The following certificates are offered for designated programs through the College of Technology. Programs offering certificates meet approved curriculum.

- Basic Technical Certificate
- Intermediate Technical Certificate
- Advanced Technical Certificate

Associate of Applied Science Degree

The Associate of Applied Science Degree is offered for designated programs through the College of Technology. Programs offering this degree require at least 60 credits, a minimum of two years in length, and represent mastery of a defined set of competencies. For additional information, contact the Student Services Office at the College of Technology at (208) 282-2622.

Interdisciplinary Degrees

Bachelor of Applied Science

The Bachelor of Applied Science (BAS) degree is an interdisciplinary degree designed specifically for students who have completed Associate of Applied Science (AAS) degrees approved by the Idaho State Board of Education. The purpose of this degree is to provide AAS graduates the opportunity to expand their general education competencies and to enhance the technical coursework of their AAS with related academic coursework. This degree builds upon the knowledge a student gained through the pursuit of the AAS while providing the education and critical thinking skills that open career opportunities. The BAS degree is administered through the Student Services Office in the College of Technology. All individual degree plans are approved by assigned advisors and by a representative university committee. See <https://www.isu.edu/bas/>.

Bachelor of Science in Health Science (BSHS) with a Concentration in Health Occupations

The objective of the BSHS Concentration 5: Health Occupations, is to allow students who have graduated or are enrolled in health occupations training at the level of an associate degree to pursue a bachelor's degree with an advanced general health science focus. This degree provides a curriculum for students who desire an education that can serve as a foundation for additional professional or graduate work in several health science professions including medicine, dentistry, hospital administration, medical technology, physical therapy, and occupational therapy. Concentration 5 of the BSHS is administered through the Student Services Office in the College of Technology. See <https://www.isu.edu/bshs/>.

Program/Option/Course Availability

A program, option, and/or course may not be offered if one or more of the following conditions exist:

1. Insufficient student enrollment
2. A certified instructor is not available
3. Adequate facilities and/or equipment are not available

Other Policies

Policies not stated in the College of Technology section of the catalog will follow Idaho State University policies. Waiver of any of the above rules may be made only by petition and with the approval of the program coordinator, department chair, and the dean of the College of Technology.

Admission to the College of Technology

Prospective students are admitted to College of Technology programs based on their interests, aptitudes, and potential to succeed in specific programs of instruction. The College of Technology is an open enrollment college and allows anyone who needs education services entrance at some level (Idaho State Board of Education, III, Q, 9a). Some programs have specific entry requirements in addition to the general requirements. Part-time enrollment in some regular preparatory programs is possible. Counselors are available to assist students in choosing programs and completing applications. For additional information, contact the College of Technology's Student Services Office at (208) 282-2622.

Admission Steps

1. Complete an application for admission at <https://www.isu.edu/apply/> and pay fees online. Be sure to click on the Undergraduate Application, then click on the College of Technology Application and select your program choice. If you are applying for the Associate Degree Registered Nurse program, Geomatics Technology, the Respiratory Therapy program or a bachelor's degree offered through the College of Technology, simply go to the Undergraduate Application.
 2. Submit an official copy of your high school transcript or GED® scores (not required if you have submitted proof of 14 or more academic credits from an accredited institution of higher education).
 3. Request an official college transcript from each accredited institution of higher education that you have attended. Transfer students are required to have a 2.0 cumulative GPA or submit an admission petition.
 4. Submit your ACT or SAT scores.
 - a. If you do not have SAT or ACT scores you will need to take the ALEKS math placement test and the Accuplacer writing placement test. Please contact the Student Services office at (208) 282-2622 to schedule these placement tests.
 - b. Home schooled applicants will be required to submit both ACT and SAT scores.
 5. Meet with one of the College of Technology advisors to finalize your acceptance. To make an appointment, call (208)282-2622.
 6. Apply for financial aid if needed.
- * For program admission, test scores are valid for two years. Exceptions may be made for competitive programs.

Admission Requirements

Because some programs fill several months in advance, all necessary documentation should be completed and returned to respective offices as early as possible. If applications are late, processing may be delayed. Students may appeal admission decisions through a petition process.

Upon completion of fourteen (14) College of Technology credits with a 2.0 GPA or better, students are eligible for transfer to an academic major.

The following Career & Technical Education standards were established by the Idaho State Board of Education and implemented in April 2003:

Career & Technical Education Admission Standards

Standards for high school graduates of 1997 and after must meet the following conditions for Regular Admission:

1. Graduate from high school.
2. Complete a placement examination (ACT or SAT, or both the ALEKS and Accuplacer). Scores will be used to determine placement eligibility for specific programs.
3. Complete specific high school coursework as defined in the table below.

Subject/Required Courses	High School Credits
Mathematics: Algebra I, Geometry, Applied Math I, II, and III, Algebra II, Trigonometry, Discrete Math, Statistics, and other higher level math courses. Two (2) mathematics credits must be taken in the 11th or 12th grade.	4 cr*
Natural Science: Applied Biology/ Chemistry, Principles of Technology (Applied Physics), Anatomy, Biology, Earth Science, Geology, Physiology, Physical Science, Zoology, Physics, Chemistry, Agricultural Science and Technology courses. Two credits must be lab.	4 cr*
English: Composition, Literature, Applied English in the Workplace	8 cr
Other: Professional-technical courses including Tech Prep sequences and organized work-based learning experiences connected to the school-based curriculum are strongly recommended.	

* Six (6) credits recommended for students intending to pursue education beyond the Associate of Applied Science.

Standards for Others Seeking Regular Admission

Individuals who graduated from high school, received a GED ® prior to 1997, or who are at least 21 years old must complete the following:

1. Graduate from high school with a 2.0 GPA or pass the GED ® ;
2. Complete a placement examination (ACT or SAT, or both the ALEKS and Accuplacer). Scores will be used to determine placement eligibility for specific programs.

Career & Technical Education Conditional Admission

Standards for students seeking conditional admission include the following:

1. Graduate from high school or pass the GED ® .
2. Complete a placement examination (ACT or SAT, or both the ALEKS and Accuplacer). Scores will be used to determine placement eligibility for specific programs.

Readmission

Former College of Technology students who have been out of school one session/ semester or more must complete a petition form in the Student Services Office for approval to return to the program. Students will enter under the current catalog.

Leadership (p. 403)

College of Technology Leadership

Dean

Rasmussen, R. Scott, Dean, College of Technology. A.T. 1985, B.S. 1998, M.Ed. 2002, Idaho State University. (1992)

Associate Dean

Ronneburg, Debra K., Associate Dean, College of Technology. B.A. 1994, M.P.A. 2000, Idaho State University. (1996)

College of Technology Programs

Program Description	Type	Degree
Advanced Automation and Manufacturing, A.A.S. (p. 409)	Degree	A.A.S.
Advanced Automation and Manufacturing, I.T.C. (p. 409)	Certificate	
Airframe and Power Plant, A.A.S. (p. 411)	Degree	A.A.S.
Power Plant, A.T.C. (p. 411)	Certificate	
Airframe, I.T.C. (p. 411)	Certificate	
Electrical Apprenticeship, A.A.S. (p. 414)	Degree	A.A.S.
Plumbing Apprenticeship, A.A.S. (p. 414)	Degree	A.A.S.
Registered Nursing, A.S. (p. 416)	Degree	A.S.
Automotive Collision Repair and Refinishing, A.A.S. (p. 418)	Degree	A.A.S.
Automotive Repair and Refinishing, A.T.C. (p. 418)	Certificate	
Automotive Collision Repair, I.T.C. (p. 418)	Certificate	
Automotive Refinishing, I.T.C. (p. 419)	Certificate	
Automotive Technology, A.A.S. (p. 421)	Degree	A.A.S.
Automotive Technology, A.T.C. (p. 421)	Certificate	
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.
Accounting Technology, A.A.S. (p. 423)	Degree	A.A.S.
Administrative Management Technology, A.A.S. (p. 423)	Degree	A.A.S.
Small Business Technology, A.A.S. (p. 423)	Degree	A.A.S.
Business Technology, B.T.C. (p. 424)	Certificate	
Small Business Technology, B.T.C. (p. 425)	Certificate	
Accounting Technology, I.T.C. (p. 424)	Certificate	
Administrative Technology, I.T.C. (p. 424)	Certificate	
Civil Engineering Technology, A.A.S. (p. 427)	Degree	A.A.S.
Civil Engineering Technician, A.T.C. (p. 427)	Certificate	
Materials Testing and Specification, B.T.C. (p. 428)	Certificate	
Computer Aided Design Drafting Technology, A.A.S. (p. 430)	Degree	A.A.S.
Computer Aided Design Drafting, A.T.C. (p. 430)	Certificate	
Architectural Drafting, I.T.C. (p. 430)	Certificate	
Mechanical Drafting, I.T.C. (p. 431)	Certificate	
Computerized Machining Technology, A.A.S. (p. 433)	Degree	A.A.S.
CNC Operator, A.T.C. (p. 433)	Certificate	
Machining Technology, A.T.C. (p. 433)	Certificate	
CNC Programmer, B.T.C. (p. 434)	Certificate	
Cosmetology, A.T.C. (p. 436)	Certificate	
Nail Technology, B.T.C. (p. 436)	Certificate	
Diesel Technology, A.A.S. (p. 438)	Degree	A.A.S.
On-Site Power Generation Technology, A.A.S. (p. 438)	Degree	A.A.S.
Diesel Technology, A.T.C. (p. 438)	Certificate	
On-Site Power Generation Technology, A.T.C. (p. 439)	Certificate	
Early Childhood Care and Education, A.A.S. (p. 441)	Degree	A.A.S.
Early Childhood Care and Education, B.T.C. (p. 442)	Certificate	
Early Childhood Care and Education, I.T.C. (p. 441)	Certificate	
Industrial Cybersecurity Engineering Technology, I.T.C. (p. 450)	Certificate	
Energy Systems Electrical Engineering Technology, A.A.S. (p. 446)	Degree	A.A.S.
Energy Systems Instrumentation Engineering Technology, A.A.S. (p. 446)	Degree	A.A.S.
Energy Systems Mechanical Engineering Technology, A.A.S. (p. 447)	Degree	A.A.S.
Energy Systems Nuclear Operations Technology, A.A.S. (p. 447)	Degree	A.A.S.
Energy Systems Wind Engineering Technology, A.A.S. (INACTIVE) (p. 448)	Degree	A.A.S.
Industrial Controls, A.A.S. (p. 449)	Degree	A.A.S.
Instrumentation and Automation Assistant, B.T.C. (p. 452)	Certificate	
Industrial Cybersecurity Engineering Technology, A.A.S. (p. 450)	Degree	A.A.S.
Energy Systems Renewable Energy Technology, I.T.C. (INACTIVE) (p. 452)	Certificate	
Energy Systems Technology, I.T.C. (p. 451)	Certificate	
Health Information Technology, A.A.S. (p. 455)	Degree	A.A.S.
Medical Coding, I.T.C. (p. 455)	Certificate	
Health Science, B.S. with Concentration in Health Occupations (http://coursecat.isu.edu/undergraduate/technology/healthoccupations/bs-hs-health-occ-conc)	Degree	B.S.
Information Technology Systems, A.A.S. (p. 460)	Degree	A.A.S.
Computer Network Technician, A.T.C. (p. 460)	Certificate	
Computer Network Technician, B.T.C. (p. 460)	Certificate	
Law Enforcement, A.A.S. (p. 462)	Degree	A.A.S.
Law Enforcement, B.T.C. (p. 462)	Certificate	
Law Enforcement, I.T.C. (p. 462)	Certificate	
Massage Therapy, A.A.S. (p. 464)	Degree	A.A.S.
Massage Therapy, I.T.C. (p. 464)	Certificate	
Medical Assisting, A.A.S. (p. 466)	Degree	A.A.S.
Occupational Therapy Assistant, A.A.S. (p. 469)	Degree	A.A.S.
Paralegal Studies, A.A.S. (p. 471)	Degree	A.A.S.
Paralegal Studies, B.A.S. (p. 406)	Degree	B.A.S.
Pharmacy Technology, A.T.C. (p. 473)	Certificate	

Pharmacy Technology, B.T.C. (p. 473)	Certificate	
Physical Therapy Assistant, A.A.S. (p. 475)	Degree	A.A.S.
Practical Nursing, I.T.C., Traditional Option (p. 478)	Certificate	
Practical Nursing, I.T.C., Vet to Nurse Option (p. 478)	Certificate	
Respiratory Therapy, A.S. (p. 481)	Degree	A.S.
Robotics and Communications Systems Engineering Technology, A.A.S. (p. 484)	Degree	A.A.S.
Laser/Electro-Optics Technology, A.T.C. (p. 485)	Certificate	
Robotics and Communications Systems Engineering Technology, A.T.C. (p. 485)	Certificate	
Robotics Engineering Technology, B.A.S. (p. 407)	Degree	B.A.S.
Surveying and Geomatics Engineering Technology, B.S. (p. 487)	Degree	B.S.
Unmanned Aerial Systems, A.A.S. (p. 489)	Degree	A.A.S.
Unmanned Aerial Systems, B.T.C. (p. 489)	Certificate	
Unmanned Aerial Systems, I.T.C. (p. 489)	Certificate	
Welder-Fitter, A.A.S. (p. 491)	Degree	A.A.S.
Welder-Fitter, A.T.C. (p. 491)	Certificate	
Welder General, I.T.C. (p. 491)	Certificate	

Bachelor of Applied Science

Program Description	Type	Degree
Paralegal Studies, B.A.S. (p. 406)	Degree	B.A.S.
Robotics Engineering Technology, B.A.S. (p. 407)	Degree	B.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

The Bachelor of Applied Science (BAS) degree is designed specifically for students who have completed Associate of Applied Science (AAS) degrees approved by the Idaho State Board of Education. The purpose of this degree is to provide AAS graduates the opportunity to expand their general education competencies and to enhance the technical coursework of their AAS with related academic coursework. This degree builds upon the knowledge a student gained through the pursuit of the AAS while providing the education and critical-thinking skills that open career opportunities. The BAS degree is administered through the Student Services Office in the College of Technology.

Out-of-state AAS degrees must be evaluated for meeting Idaho State Board of Education standards. If the AAS degree is over 5 years old, the student must be evaluated for currency in the technical field.

Applied Science Majors

After completing a minimum of 15 credit hours of BAS general education requirements and one semester of the AAS program, the BAS student develops an individualized degree plan in consultation with both academic and technical advisors assigned to the student by the BAS advisor in the College of Technology Student Services Office. Based on the student's concise and clearly written goal statement, the individualized degree plan will list the specific approved courses that meet the degree requirements. The degree plan and the goal statement must be approved by assigned advisors and the BAS Committee.

Other Majors

Students earning the BAS degree will have a major of Applied Science unless they fulfill the requirements for the BAS in Paralegal Studies or the BAS in Robotics Engineering Technology.

For information contact:

College of Technology Student Services

RFC Building (Bldg #48)

(208) 282-3939

<https://www.isu.edu/tech/departments/student-services/>

Bachelor of Applied Science: Applied Science

Code	Title	Credits
	Career-Technical credits applied toward the BAS Degree	up to 50
	General Education Requirements	36
	Academic Coursework (all upper division credits)	36
	Total Credits Required (minimum)	120

A minimum of 12 credits must support the AAS technical coursework. All BAS students must earn a minimum of a 2.0 GPA in academic coursework for graduation. Non-business students are limited to total business credits equaling 25% of their credit total. Upper division academic coursework must relate to the student's approved goal statement. It is recommended that 24 academic credits be completed after degree plan approval.

Bachelor of Applied Science: Paralegal Studies

Students seeking this degree must complete the following BAS and university requirements:

Code	Title	Credits
	CTE Credits from the AAS in Paralegal Studies	44
	General Education Requirements	36
	Upper Division Credits (see required courses listed below)	36
	Total Credits Required (minimum)	120

Students must complete a minimum of eighteen hours of academic course work from the following courses:

Code	Title	Credits
POLS 4441	Administrative Law	3
POLS 4442	Constitutional Law	3
POLS 4443	Civil Rights and Liberties	3
POLS 4445	Jurisprudence	3
POLS/ANTH 4478	Federal Indian Law	3
POLS/ANTH 4479	Tribal Governments	3
SOC 3310	Introduction to Criminal Justice	3
SOC 4431	Criminology	3

MGT 4461	Business Law	3
MGT 4480	Labor and Employment Law	3
POLS 3308	State and Local Government	3
POLS 4404	The Legislative Process	3
POLS 4444	Law and Society	3
POLS 4467	State and Local Administration	3
MGT 4483	Industrial Relations	3
CMP 3320	Foundations of Leadership	3
CMP 4422	Conflict Management	3

Students must select an additional 18 upper division credits with an assigned BAS advisor and obtain approval for their degree plan from the BAS Committee. 18

For information contact:

College of Technology

Student Services

RFC Building (Bldg #48)

(208) 282-3939

<https://www.isu.edu/tech/departments/student-services/>

Bachelor of Applied Science: Robotics Engineering Technology

(4 Years)

In addition to 8 of the 9 General Education Objectives (a minimum of 36 credits-- see the General Education Requirements (p. 57) in the Academic Information section of this catalog), Robotics Engineering Technology majors are required to take the following courses:

Code	Title	Credits
Required Courses:		
ENGL 3307	Professional and Technical Writing	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory	4
RCET 0153A	Basic Electricity and DC Circuit Theory	4
RCET 0153B	Basic Electricity and AC Circuit Theory	4
RCET 0154A	Analog Control Devices Theory	4
RCET 0154B	Digital Control Devices Theory	4
RCET 0155A	Basic Electricity and DC Circuit Lab	2
RCET 0155B	Basic Electricity and AC Circuit Lab	2
RCET 0156A	Analog Control Devices Laboratory	2
RCET 0156B	Digital Control Devices Laboratory	2
RCET 0251	Systems Analog and Digital Theory	6
RCET 0253	Systems Analog and Digital Laboratory	5
RCET 0264	Introductory Calculus	4
RCET 0265	Computer Fundamentals and Introduction to Programming	4
RCET 0267	Radio Frequency Transmission Theory	6
RCET 0268	Radio Frequency Transmission Lab	5
RCET 0271	Introduction to Lab Simulation Software	2
RCET 1372	Calculus for Advanced Electronics	4
RCET 3371	Advanced Programming Techniques and GUI Development	4
RCET 3373	Advanced Computer Architecture and Embedded Systems Theory	5
RCET 3374	Advanced Systems Analysis Theory	4
RCET 3375	Advanced Computer Architecture and Embedded Systems Laboratory	5
RCET 3376	Advanced Systems Analysis Theory	5
Select a minimum of 10 credits from the following:		10
RCET 3331	Laser Systems and Optics Theory	4
RCET 3332	Laser Systems and Optics Laboratory	3
RCET 3370	Electronic Drafting for PCB Design	3
RCET 3382	Rapid Prototyping Technologies	2
RCET 3383	Advanced Laser Systems and Optics Theory	5
RCET 3384	Advanced Laser Systems and Optics Laboratory	3
RCET 3396	Independent Study	1-8

RCET 3398	Special Topics	1-8
MGT or OLP Upper Division Courses Numbered 3300-4499		3-9

For information contact:

College of Technology
 Student Services
 RFC Building (Bldg #48)
 (208) 282-3939
<http://www.isu.edu/ctech/student-services/>

Advanced Automation and Manufacturing Technology

(1 to 2 Years)

Program Description	Type	Degree
Advanced Automation and Manufacturing, I.T.C. (p. 409)	Certificate	
Advanced Automation and Manufacturing, A.A.S. (p. 409)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

1. The Advanced Automation and Manufacturing Technology (ADMT) Program at the Idaho State University College of Technology addresses the interests and requirements of participants in career opportunities within advanced manufacturing industries such as computer and electronic

production, chemical production, transportation equipment, machinery, fabricated metal, and food production.

2. The program provides basic skills, knowledge, and training in a current advanced manufacturing environment, including safety practices, entry-level computer aided drafting, basic electronics, programmable logic controls, and human machine interfaces.
3. The program provides learning opportunities involving critical thinking and problem solving.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/programs.shtml>.

Faculty (p. 408)

ADMT Courses (p. 500)

Advanced Automation and Manufacturing Technology Faculty

Coordinator and Instructor

(Vacant)

Associate of Applied Science: Advanced Automation and Manufacturing

(2 Years)

Required Courses:

Code	Title	Credits
ADMT 0101	Introduction to Machining	3
ADMT 0102	Electronics Orientation	3
ADMT 0103	Introduction to Advanced Manufacturing Welding Processes I	3
ADMT/ESET 0162	Industrial Health and Safety	2
ADMT/INST 0220	Introduction to Programmable Logic Controllers	3
ADMT/MACH 0221	CAD and CAM I Theory	3
ADMT/ESET 0242	Practical Process Measurements and Control	2
ADMT/ESET 0243	Fluid and Pneumatic Power	2
ADMT/ESET 0243L	Fluid and Pneumatic Power Lab	2
ADMT 0244	Advanced Manufacturing Welding Processes II	3
ADMT 0245	Lean and Six Sigma	3
ADMT/ESET 0246	Materials and Metallurgy	2
General Education courses ¹		15

¹ See General Education Requirements (p. 401) (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Select one of the following options:**Option 1: Electrical and Instrumentation Specialization**

Code	Title	Credits
ESET 0122	Electrical Systems and Motor Control Theory	3
ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
ESET 0222	Process Control Theory	3
ESET 0226	Process Control Devices Laboratory	1
ESET 0231	Microcontrollers	2
ESET 0231L	Microcontrollers Laboratory	1
ESET 0233	Electrical Power Systems	3
ESET 0233L	Electrical Power Systems Laboratory	3

Option 2: Welding Specialization

Code	Title	Credits
WELD 0142	Blueprint Reading for Welders	2
WELD 0232	Welding Practice IV	13

Total Hours for the AAS:
61 or 62

Intermediate Technical Certificate: Advanced Automation and Manufacturing

(1 Year)

Code	Title	Credits
ADMT 0101	Introduction to Machining	3
ADMT 0102	Electronics Orientation	3
ADMT 0103	Introduction to Advanced Manufacturing Welding Processes I	3
ADMT/ESET 0162	Industrial Health and Safety	2
ADMT/INST 0220	Introduction to Programmable Logic Controllers	3
ADMT/MACH 0221	CAD and CAM I Theory	3
ADMT/ESET 0242	Practical Process Measurements and Control	2
ADMT/ESET 0243	Fluid and Pneumatic Power	2
ADMT/ESET 0243L	Fluid and Pneumatic Power Lab	2
ADMT 0244	Advanced Manufacturing Welding Processes II	3
ADMT 0245	Lean and Six Sigma	3

ADMT/ESET 0246	Materials and Metallurgy	2
Total Credits		31

Aircraft Maintenance Technology

(1 to 2 Years)

Program Description	Type	Degree
Airframe, I.T.C. (p. 411)	Certificate	
Powerplant, A.T.C. (p. 411)	Certificate	
Airframe and Powerplant, A.A.S. (p. 411)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objective

To prepare graduates for entry-level employment in airframe and powerplant maintenance in compliance with FAA regulations as they begin their careers as technicians.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/aircraft/>.

Each course must be completed with a C- or better before the student can progress in the program.

Faculty (p. 410)

AIRM Courses (p. 500)

Aircraft Maintenance Technology Faculty

Coordinator and Instructor

Evans, Michael, Coordinator, Instructor, Aircraft Maintenance Technology. (2013)

Clinical Instructor

Roberts, Kent, Clinical Instructor, Aircraft Maintenance Technology. A.A.S. 2009, Eastern New Mexico University. (2011)

Instructor

Everett, Barry L. Jr., Instructor, Aircraft Maintenance Technology. A.A.S. 2000, Idaho State University. (2016)

Associate of Applied Science: Airframe and Powerplant

(2 Years)

Code	Title	Credits
AIRM 0100	Introduction to Aircraft Maintenance and Aviation Aerodynamics	1
AIRM 0101	Mathematics	3
AIRM 0104	Materials and Processes	5
AIRM 0107	Forms and Regulations	3
AIRM 0108	Basic Electricity	3
AIRM 0109	Fluid Systems	4
AIRM 0110	Landing Gear Systems	2
AIRM 0111	Auxiliary Systems	2
AIRM 0112	Aircraft Electrical Systems	4
AIRM 0113	Rigging and Inspection	3
AIRM 0114	Metallic Structures	3
AIRM 0115	Aircraft Instruments, Communications, and Navigation	2
AIRM 0116	Non-Metallic Structures	4
AIRM 0221	Reciprocating Engine Theory and Practice	3

AIRM 0222	Advanced Reciprocating Engine Inspection and Maintenance	3
AIRM 0223	Basic Turbine Engines	4
AIRM 0224	Advanced Turbine Engines	3
AIRM 0225	Powerplant Lubrication Systems	3
AIRM 0227	Engine Fuel Metering Systems	3
AIRM 0228	Engine Ignition Systems	4
AIRM 0229	Engine Electrical and Instrument Systems	4
AIRM 0230	Propeller Systems	4
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
Additional General Education courses		12
Total Credits		85

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Powerplant

(2 Years)

Code	Title	Credits
AIRM 0100	Introduction to Aircraft Maintenance and Aviation Aerodynamics	1
AIRM 0101	Mathematics	3
AIRM 0104	Materials and Processes	5
AIRM 0107	Forms and Regulations	3
AIRM 0108	Basic Electricity	3
AIRM 0109	Fluid Systems	4
AIRM 0110	Landing Gear Systems	2
AIRM 0111	Auxiliary Systems	2
AIRM 0112	Aircraft Electrical Systems	4
AIRM 0113	Rigging and Inspection	3
AIRM 0114	Metallic Structures	3
AIRM 0115	Aircraft Instruments, Communications, and Navigation	2

AIRM 0116	Non-Metallic Structures	4
AIRM 0221	Reciprocating Engine Theory and Practice	3
AIRM 0222	Advanced Reciprocating Engine Inspection and Maintenance	3
AIRM 0223	Basic Turbine Engines	4
AIRM 0224	Advanced Turbine Engines	3
AIRM 0225	Powerplant Lubrication Systems	3
AIRM 0227	Engine Fuel Metering Systems	3
AIRM 0228	Engine Ignition Systems	4
AIRM 0229	Engine Electrical and Instrument Systems	4
AIRM 0230	Propeller Systems	4
Total Credits		70

Intermediate Technical Certificate: Airframe

(1 Year)

Code	Title	Credits
AIRM 0100	Introduction to Aircraft Maintenance and Aviation Aerodynamics	1
AIRM 0101	Mathematics	3
AIRM 0104	Materials and Processes	5

AIRM 0107	Forms and Regulations	3
AIRM 0108	Basic Electricity	3
AIRM 0109	Fluid Systems	4
AIRM 0110	Landing Gear Systems	2
AIRM 0111	Auxiliary Systems	2
AIRM 0112	Aircraft Electrical Systems	4

AIRM 0113	Rigging and Inspection	3
AIRM 0114	Metallic Structures	3
AIRM 0115	Aircraft Instruments, Communications, and Navigation	2
AIRM 0116	Non-Metallic Structures	4
Total Credits		39

Apprenticeships

Program Description	Type	Degree
Electrical Apprenticeship, A.A.S. (p. 414)	Degree	A.A.S.
Plumbing Apprenticeship, A.A.S. (p. 414)	Degree	A.A.S.

Associate of Applied Science Degree: Electrical Apprenticeship

This Associate of Applied Science degree is designed for the student who has a current Idaho journeyman license, has proof of completed apprenticeship, and proof of registration with the Idaho Department of Labor and Industrial Services.

Federal Financial Aid is not applicable for this program.

Once the Electrical Apprenticeship student completes required hours in the apprenticeship program, has been verified by Workforce Training, and has completed the General Education requirements for the AAS degree as outlined on the College of Technology page (p. 401) in the Undergraduate Catalog, 52 credits of ELAP coursework listed in the program requirements will be posted to the ISU transcript upon payment of a credit recording fee of \$15 per credit (see Expenses (<http://coursecat.isu.edu/aboutisu/expenses>) in the General Information section of the ISU Undergraduate Catalog).

Associate of Applied Science Degree: Plumbing Apprenticeship

This Associate of Applied Science degree is designed for the student who has a current Idaho plumber's license, proof of completed plumbing apprenticeship, and proof of registration with the Plumbing Division, Idaho Department of Labor and Industrial Services.

Federal Financial Aid is not applicable for this program.

Once the Plumbing Apprenticeship student completes required hours in the apprenticeship program, has been verified by Workforce Training, and has completed the General Education requirements for the AAS degree as outlined on the College of Technology page (p. 401) in the Undergraduate Catalog, 52 credits of PLAP coursework listed in the program requirements will be posted to the ISU transcript upon payment of a credit recording fee of \$15 per credit (see Expenses (<http://coursecat.isu.edu/aboutisu/expenses>) in the General Information section of the ISU Undergraduate Catalog).

Faculty (p. 413)

ELAP Courses (p. 551)

PLAP Courses (p. 635)

Apprenticeship Faculty

Director

Salazar, Gary, Director, Continuing Education and Workforce Training. B.S. 1975, University of Colorado; M.S. 1988, Naval Postgraduate School. (2016)

Assistant Director

Batalden, Jason, Assistant Director, Continuing Education and Workforce Training. B.A. 1993, Oklahoma Wesleyan University. (2019)

Associate of Applied Science: Electrical Apprenticeship

Code	Title	Credits			
Required Courses:			ELAP 0250	Electrical Internship Year 4	10
ELAP 0100	Electrical Internship Year 1	10	ELAP 0251	Electrical Theory Year 4	3
ELAP 0101	Electrical Theory Year 1	3	General Education courses ¹		15
ELAP 0150	Electrical Internship Year 2	10	Total Credits		67
ELAP 0151	Electrical Theory Year 2	3			
ELAP 0200	Electrical Internship Year 3	10			
ELAP 0201	Electrical Theory Year 3	3			

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Associate of Applied Science: Plumbing Apprenticeship

Code	Title	Credits
Required Courses:		
PLAP 0100	Plumbing Internship Year 1	10
PLAP 0101	Plumbing Theory Year 1	3
PLAP 0150	Plumbing Internship Year 2	10
PLAP 0151	Plumbing Theory Year 2	3
PLAP 0200	Plumbing Internship Year 3	10
PLAP 0201	Plumbing Theory Year 3	3
PLAP 0250	Plumbing Internship Year 4	10
PLAP 0251	Plumbing Theory Year 4	3
General Education courses: ¹		15
Total Credits		67

¹ See General Education Requirements (p. 401) (minimum 15 credits) for AAS degree at the start of the College of Technology section of the catalog.

Associate Degree Registered Nurse Program

Program Description	Type	Degree
Registered Nursing, A.S. (p. 416)	Degree	A.S.

One Associate of Science degree (see description in the General Information (p. 401) section) and one Bachelor of Science in Health Science degree (see description under the Health Occupations Department (p. 416)) are available in the College of Technology. Articulation into B.S. and M.S. programs in Nursing in the Kasiska Division of Health Sciences (p. 315) is available for graduates.

Overview

This program will provide students with skills and knowledge needed to sit for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Graduates are prepared to render competent nursing care in a variety of health care settings including hospitals, nursing homes, clinics, physicians' offices, home health agencies, and health centers.

Immediately upon deciding this major, please contact the Student Services department in the College of Technology at **(208) 282-2622**.

Admission

The following criteria must be met prior to final admission into the Associate Degree Registered Nurse program:

1. All students must first be admitted to the university. For information on university admission, contact the College of Technology Student Services office at **(208) 282-2622**.
2. Completion of the following prerequisite courses, or equivalents, with a grade of "C" or better: ENGL 1101 or ENGL 1101P, and ENGL 1102; PSYC 1101; NTD 2239 or NTD 3340 (NTD 3340 preferred); BIOL 2221 and BIOL 2221L or equivalent, 3 credits from Objective 3 (MATH 1153 preferred); COMM 1101; and BIOL 3301, BIOL 3301L, or BIOL 2227 and

BIOL 2227L, BIOL 3302, and BIOL 3302L. Options exist for transfer credit or testing. Please consult with Student Services at **(208) 282-2622**.

3. A cumulative grade point average (GPA) of at least 2.5 for all post-secondary education is required.
4. Active, unrestricted licensure to practice as an LPN in the State of Idaho.
5. Current CPR certification (AHA or American Red Cross only).
6. Proof of successful completion of IV Therapy course.
7. Proof of current immunization and verified good health status per program policy upon conditional acceptance into the program.
8. Background check and drug screening per department policy upon conditional acceptance into the program.

Students are admitted to the ADRN program once per year using a competitive application process. Upon completion or near-completion of the above criteria, submit a program application and application fee to Student Services, College of Technology, **(208) 282-2622**. Once the application is submitted and complete and eligibility verified, the student will take a nationally-normed program entrance examination. This exam score is combined with cumulative post-secondary GPA, years of LPN experience, and documented adherence to nursing standards (reference) to rank-order applicants for each admission class.

For a Program Information Packet showing course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/registerednurse/>.

Each course must be completed with a C or better before the student can progress in the program.

Faculty (p. 415)

ADRN Courses (p. 642)

Associate Degree Registered Nurse Faculty

Director of Nursing Programs and Clinical Assistant Professor

Brumfield, Jennie L., Director of Nursing Programs; Clinical Assistant Professor, Associate Degree Registered Nurse. A.S. 2005, B.S. 2008, M.S. 2011, Idaho State University; M.S. 2015, Gonzaga University. (2011)

Instructor

Howell, Lance, Instructor, Associate Degree Registered Nurse. A.S. 2000, College of Southern Idaho; B.S. 2001, Idaho State University; M.S.N. 2011, Western Governors University. (2017)

Associate of Science: Registered Nursing

2-Year Program, including prerequisite courses

This is an academic Associate of Science degree program that provides classroom, laboratory, and clinical practicum instruction which prepares graduates to write the NCLEX-RN examination. Successfully passing this examination is a prerequisite for registered nurse licensure. Graduates from this program may articulate into programs offering B.S. and/or M.S. degrees in Nursing.

The courses listed below are specific to Idaho State University. Equivalent courses from other institutions will be individually evaluated and transferred in as appropriate.

General Education and Prerequisite Courses

Students must complete 8 of the 9 University's General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 57) described in the Academic Information section of this catalog.) Listed below are program requirements, some of which will also satisfy General Education Objectives.

Code	Title	Credits
Take one of the following courses with lab:		4
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	
or		
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	
Take one of the following courses with lab:		4
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially satisfies General Education Objective 5)	
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab ¹	4
CHEM 1101	Introduction to Chemistry (Partially satisfies General Education Objective 5)	3
COMM 1101	Fundamentals of Oral Communication ²	3
ENGL 1101	Writing and Rhetoric I ²	3
or ENGL 1101P	Writing and Rhetoric I Plus	
ENGL 1102	Writing and Rhetoric II ²	3
NTD 2239	Nutrition ²	3
or NTD 3340	Nutrition for Health Professionals	
PSYC 1101	Introduction to Psychology ²	3
Objective 3 (MATH 1153 preferred)		3
Objective 4 (minimum of 6 cr)		6
One additional Objective 6 course with different prefix from that chosen earlier		3

Objective 7 or 8		3
Objective 9 (minimum of 3 cr)		3
Program-Specific Courses		
ADRN 2210	Nursing Transition	2
ADRN 2211	Mental Health Nursing	3
ADRN 2212	Clinical Foundations of Nursing III	2
ADRN 2220 & 2220L	Health Assessment and Health Assessment Lab	3
ADRN 2230	Medical and Surgical Nursing III	3
ADRN 2231	Clinical Foundations of Nursing IV	4
ADRN 2232	Family Nursing	3
ADRN 2233	Medical and Surgical Nursing IV	3
ADRN 2245	Clinical Foundations of Nursing V	4
Total Credits		75

¹ Or other approved anatomy and physiology course.

² Contributes to General Education requirement.

Progression

The student is required to earn a grade of "C" or better in all ADRN courses and is required to maintain a GPA of 2.0 or better in order to remain in the program. All non-nursing courses must be completed prior to the start of the final (summer) semester.

Automotive Collision Repair and Refinishing

(1 to 2 Years)

Program Description	Type	Degree
Automotive Collision Repair, I.T.C. (p. 418)	Certificate	
Automotive Refinishing, I.T.C. (p. 419)	Certificate	
Automotive Repair and Refinishing, A.T.C. (p. 418)	Certificate	
Automotive Collision Repair and Refinishing, A.A.S. (p. 418)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objective

To provide realistic training that prepares the graduate for a career in collision repair and/or refinishing, utilizing the latest technologies, methods, and materials.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/autocollision/>.

Successful completion (D- or better) of each course is required before the student can progress in the program.

Faculty (p. 417)

ACRR Courses (p. 507)

Automotive Collision Repair and Refinishing Faculty

Coordinator and Clinical Senior Instructor

Beamis, Don, Jr., Coordinator, Clinical Senior Instructor, Automotive Collision Repair and Refinishing. Certificate 1985, Idaho State University. (1997)

Clinical Senior Instructor

Butler, Russell, Clinical Senior Instructor, Automotive Collision Repair and Refinishing. (1996)

Associate of Applied Science Degree: Automotive Collision Repair and Refinishing

(2 Years)

Required Courses:

Code	Title	Credits
ACRR 0101	Introduction to Collision Repair Safety	2
ACRR 0102	Introduction to Welding for Collision Repair	1
ACRR 0103	Introduction to Welding for Collision Repair Lab	2
ACRR 0104	Fundamentals of Auto Collision Repair and Refinishing	3
ACRR 0105	Detailing and Polishing	2
ACRR 0106	Minor Collision Repair Theory	1
ACRR 0107	Minor Collision Repair Lab	2
ACRR 0108	Fundamentals of Auto Collision Repair and Refinishing Lab	3
ACRR 0160	Advanced Refinishing I	8

ACRR 0161	Advanced Refinishing II	8
ACRR 0162	Advanced Refinishing III	8
or ACRR 0252	Internship	
ACRR 0210	Advanced Collision Repair I	8
ACRR 0211	Advanced Collision Repair II	8
ACRR 0212	Advanced Collision Repair III	8
or ACRR 0252	Internship	
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
Additional General Education courses		12
Total Credits		79

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Automotive Repair and Refinishing

(2 Years)

Code	Title	Credits
ACRR 0101	Introduction to Collision Repair Safety	2
ACRR 0102	Introduction to Welding for Collision Repair	1
ACRR 0103	Introduction to Welding for Collision Repair Lab	2
ACRR 0104	Fundamentals of Auto Collision Repair and Refinishing	3
ACRR 0105	Detailing and Polishing	2
ACRR 0106	Minor Collision Repair Theory	1
ACRR 0107	Minor Collision Repair Lab	2

ACRR 0108	Fundamentals of Auto Collision Repair and Refinishing Lab	3
ACRR 0160	Advanced Refinishing I	8
ACRR 0161	Advanced Refinishing II	8
ACRR 0162	Advanced Refinishing III	8
or ACRR 0252	Internship	
ACRR 0210	Advanced Collision Repair I	8
ACRR 0211	Advanced Collision Repair II	8
ACRR 0212	Advanced Collision Repair III	8
or ACRR 0252	Internship	
Total Credits		64

Intermediate Technical Certificate: Automotive Collision Repair

(1.5 Years)

Code	Title	Credits
ACRR 0101	Introduction to Collision Repair Safety	2
ACRR 0102	Introduction to Welding for Collision Repair	1
ACRR 0103	Introduction to Welding for Collision Repair Lab	2
ACRR 0104	Fundamentals of Auto Collision Repair and Refinishing	3

ACRR 0105	Detailing and Polishing	2
ACRR 0106	Minor Collision Repair Theory	1
ACRR 0107	Minor Collision Repair Lab	2
ACRR 0108	Fundamentals of Auto Collision Repair and Refinishing Lab	3
ACRR 0210	Advanced Collision Repair I	8
ACRR 0211	Advanced Collision Repair II	8

ACRR 0212	Advanced Collision Repair III	8
Total Credits		40

Intermediate Technical Certificate: Automotive Refinishing

(1.5 Years)

Code	Title	Credits
ACRR 0101	Introduction to Collision Repair Safety	2
ACRR 0102	Introduction to Welding for Collision Repair	1
ACRR 0103	Introduction to Welding for Collision Repair Lab	2
ACRR 0104	Fundamentals of Auto Collision Repair and Refinishing	3
ACRR 0105	Detailing and Polishing	2
ACRR 0106	Minor Collision Repair Theory	1
ACRR 0107	Minor Collision Repair Lab	2
ACRR 0108	Fundamentals of Auto Collision Repair and Refinishing Lab	3
ACRR 0160	Advanced Refinishing I	8
ACRR 0161	Advanced Refinishing II	8
ACRR 0162	Advanced Refinishing III	8
Total Credits		40

Automotive Technology

(1.5 to 2 Years)

Program Description	Type	Degree
Automotive Technology, A.T.C. (p. 421)	Certificate	
Automotive Technology, A.A.S. (p. 421)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/autotechnology/>.

Students must achieve core subject grades no lower than “C” in order to advance each semester. Specific information is available in the program’s student handbook.

Objective

To provide theory and help students develop diagnostic skills and practical experience in the repair of today’s automobiles in preparation for a lifelong career as an automotive technician.

Faculty (p. 420)

AUTM Courses (p. 508)

Automotive Technology Faculty

Coordinator and Clinical Instructor

Gunter, Brock C., Coordinator, Clinical Instructor, Automotive Technology. Technical Certificate 1995, College of Southern Idaho. (2006)

Instructors

Booth, Shane, Instructor, Automotive Technology. A.A. 2003, Blue Mountain Community College; Advanced Technical Certificate, A.A.S. 2009, Idaho State University; B.S. 2005, Southern Oregon University. (2016)

(Vacant)

Associate of Applied Science: Automotive Technology

(2 Years)

Code	Title	Credits
Required Courses:		
AUTM 0100E	Electrical Systems	3
AUTM 0100M	Engine Repair	3
AUTM 0100S	Automotive Technology Fundamentals and Safety	2
AUTM 0101	Advanced Engine Mechanical and Repair	4
AUTM 0102	Automotive Electrical	8
AUTM 0103	Engine Performance	8
AUTM 0105	Steering/Suspension	4
AUTM 0106	Brakes	4
AUTM 0107	Manual Drivetrains and Axles	4

AUTM 0108	Automatic Transmissions/Transaxles	4
AUTM 0109	Live Work	8
AUTM 0120	Automotive Heating and Air Conditioning	4
AUTM 0201	Advanced Electrical Systems	8
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
Additional General Education courses		12
Total Credits		79

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Automotive Technology

(2 Years)

Code	Title	Credits
AUTM 0100E	Electrical Systems	3
AUTM 0100M	Engine Repair	3
AUTM 0100S	Automotive Technology Fundamentals and Safety	2
AUTM 0101	Advanced Engine Mechanical and Repair	4
AUTM 0102	Automotive Electrical	8
AUTM 0103	Engine Performance	8
AUTM 0105	Steering/Suspension	4
AUTM 0106	Brakes	4
AUTM 0107	Manual Drivetrains and Axles	4
AUTM 0108	Automatic Transmissions/Transaxles	4
AUTM 0109	Live Work	8
AUTM 0120	Automotive Heating and Air Conditioning	4
AUTM 0201	Advanced Electrical Systems	8
Total Credits		64

Business Technology

(1 to 2 Years)

Program Description	Type	Degree
Business Technology, B.T.C. (p. 424)	Certificate	
Small Business Technology, B.T.C. (p. 425)	Certificate	
Accounting Technology, I.T.C. (p. 424)	Certificate	
Administrative Technology, I.T.C. (p. 424)	Certificate	
Accounting Technology, A.A.S. (p. 423)	Degree	A.A.S.
Administrative Management Technology, A.A.S. (p. 423)	Degree	A.A.S.
Small Business Technology, A.A.S. (p. 423)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Overview

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/business/technology/>.

Small business owners will benefit from learning skills that will assist them in operating a successful business. Proficiency in skills such as business plan writing, computer accounting, financial planning, business writing, spreadsheets, business math applications, supervision, marketing, and e-commerce are valuable in owning and managing a small business. **Administrative professionals** manage and maintain all aspects of an office environment. Extensive software skills in Microsoft Word, Excel, Access, and PowerPoint are required, as well as Internet research abilities and strong communication skills. **Administrative office assistants** need flexibility, excellent interpersonal skills, project

coordination skills, and the ability to work well with all levels of internal management and staff as well as outside clients and vendors. **Accounting technicians** perform a combination of calculating, posting, and verifying duties involving financial data using spreadsheets, database, and accounting software. They handle accounting for sole proprietorships, partnerships, and corporations by electronically processing accounting transactions, using journals and ledgers; preparing financial statements; and processing payroll. **Graduates from the Business Technology Program** will have acquired new or upgraded skills necessary for any business environment.

Administrative assistants and accounting support professionals are in demand. According to the Idaho Occupational Employment and Wage Survey 2016, salaries for Office and Administrative Support Occupations in Southeastern Idaho averaged \$14.72/hour; Bookkeeping, Accounting, and Auditing Clerks averaged \$15.02; and Executive Administrative Assistants averaged \$21.44/hour.

Helpful High School Courses

English, mathematics, computer applications, keyboarding, accounting, desktop publishing, and economics/business courses.

A grade of "C-" or better must be attained in all required BT program specific courses. If a "C-" or better is not achieved in a required BT class, the student may repeat the class only one time. A minimum cumulative GPA of 2.0 is required for graduation.

Faculty (p. 422)

BT Courses (p. 517)

Business Technology Faculty

Coordinator

Open

Clinical Assistant Professor

Warren, Gene, Clinical Assistant Professor, Business Technology. Certificate 1981, B.S. 1991, Idaho State University. (1991)

Instructor

Rawlings, Duane, Instructor, Business Technology. B.S. 1993, Idaho State University; M.A. 2015, Liberty University. (2016)

Emerita

Larson, Debra R., Master Instructor, Business Technology. 1988-2018

Campbell, Marie, Clinical Assistant Professor, Business Technology 2010-2019

Associate of Applied Science: Accounting Technology

(4 Semesters)

Code	Title	Credits
Required Courses:		
BT 0111	Applied Business Principles	3
BT 0115	Practicum	2
BT 0116	Professional Leadership Development	1
BT 0117	Successful Workplace Communications	3
BT 0120	Basic Accounting	3
BT 0123	Financial Business Applications	3
BT 0144	Business Document Processing	3
BT 0147	Accounting Applications	3
BT 0148	Payroll Procedures	3
BT 0170	Computer Literacy and Business Software	3
BT 0171	Computerized Accounting	3
BT 0175	Harnessing Digital Data Using Spreadsheets and Databases	3
ACCT 2201	Principles of Accounting I	3
ACCT 2202	Principles of Accounting II	3
MGT 2261	Legal Environment of Organizations	3
TGE 0158	Employment Strategies	1-3
or BT 0135	Employees and HR Principles	
General Education courses		
TGE 1140	Survey of Applied Mathematics	3
or MGT 2216	Business Statistics	
TGE 1150	Applied Social Sciences in the Workplace	3
TGE 1257	Applied Ethics in Technology	3
COMM 1101	Fundamentals of Oral Communication	3
ECON 2201	Principles of Macroeconomics	3
or ECON 2202	Principles of Microeconomics	
ENGL 1101	Writing and Rhetoric I	3
Total Credits		61-63

Associate of Applied Science: Administrative Management Technology

(2 Years)

Code	Title	Credits
Required Courses:		
BT 0111	Applied Business Principles	3
BT 0115	Practicum	2
BT 0116	Professional Leadership Development	1
BT 0117	Successful Workplace Communications	3
BT 0120	Basic Accounting	3
BT 0123	Financial Business Applications	3
BT 0135	Employees and HR Principles	3
BT 0144	Business Document Processing	3
BT 0170	Computer Literacy and Business Software	3
BT 0171	Computerized Accounting	3
BT 0175	Harnessing Digital Data Using Spreadsheets and Databases	3
BT 0180	Designing Web Communications	3
BT 0181	Maintaining Digital Communications	3
MGT 2261	Legal Environment of Organizations	3
Six (6) credits of BT electives		6
General Education courses		
TGE 1140	Survey of Applied Mathematics	3
TGE 1150	Applied Social Sciences in the Workplace	3
TGE 1257	Applied Ethics in Technology	3
COMM 1101	Fundamentals of Oral Communication	3
ENGL 1101	Writing and Rhetoric I	3
Total Credits		60

Associate of Applied Science: Small Business Technology

(Technical Certificate plus 1 Year)

Code	Title	Credits
Required Courses:		
BT 0111	Applied Business Principles	3
BT 0116	Professional Leadership Development	1
BT 0117	Successful Workplace Communications	3
BT 0130	Building Your Brand for Small Businesses	3
BT 0135	Employees and HR Principles	3
BT 0171	Computerized Accounting	3
Earned Technical Certificate of at least 30 semester credits		30

BT 0175	Harnessing Digital Data Using Spreadsheets and Databases	3	TGE 1257	Applied Ethics in Technology	3
BT 0220	Introduction to Entrepreneurship	3	COMM 1101	Fundamentals of Oral Communication	3
General Education courses			ENGL 1101	Writing and Rhetoric I	3
TGE 1140	Survey of Applied Mathematics	3	Total Credits		67
TGE 1150	Applied Social Sciences in the Workplace	3			

Intermediate Technical Certificate: Accounting Technology

(2 Semesters)

Code	Title	Credits	Code	Title	Credits
Required Courses:			BT 0148	Payroll Procedures	3
BT 0111	Applied Business Principles	3	BT 0170	Computer Literacy and Business Software	3
BT 0116	Professional Leadership Development	1	BT 0171	Computerized Accounting	3
BT 0117	Successful Workplace Communications	3	BT 0175	Harnessing Digital Data Using Spreadsheets and Databases	3
BT 0120	Basic Accounting	3	TGE 0158	Employment Strategies	1-3
BT 0123	Financial Business Applications	3	or BT 0135	Employees and HR Principles	
BT 0144	Business Document Processing	3	Total Credits		32-34
BT 0147	Accounting Applications	3			

Intermediate Technical Certificate: Administrative Technology

(2 Semesters)

Code	Title	Credits	Code	Title	Credits
Required Courses:			BT 0170	Computer Literacy and Business Software	3
BT 0111	Applied Business Principles	3	BT 0171	Computerized Accounting	3
BT 0116	Professional Leadership Development	1	BT 0175	Harnessing Digital Data Using Spreadsheets and Databases	3
BT 0117	Successful Workplace Communications	3	BT 0180	Designing Web Communications	3
BT 0120	Basic Accounting	3	BT 0181	Maintaining Digital Communications	3
BT 0123	Financial Business Applications	3	TGE 0158	Employment Strategies	1-3
BT 0144	Business Document Processing	3	or BT 0135	Employees and HR Principles	
			Total Credits		32-34

Basic Technical Certificate: Business Technology

(1 Semester)

Code	Title	Credits	Code	Title	Credits
Required Courses:			BT 0170	Computer Literacy and Business Software	3
BT 0116	Professional Leadership Development	1	BT 0171	Computerized Accounting	3
BT 0117	Successful Workplace Communications	3	Six (6) credits of BT electives		6
			Total Credits		16

Basic Technical Certificate: Small Business Technology

(1 Semester)

Code	Title	Credits
Required Courses:		
BT 0111	Applied Business Principles	3
BT 0116	Professional Leadership Development	1
BT 0117	Successful Workplace Communications	3
BT 0130	Building Your Brand for Small Businesses	3
BT 0171	Computerized Accounting	3
BT 0220	Introduction to Entrepreneurship	3
Total Credits		16

Civil Engineering Technology

(1 to 2 Years)

Program Description	Type	Degree
Materials Testing and Specification, B.T.C. (p. 428)	Certificate	
Civil Engineering Technician, A.T.C. (p. 427)	Certificate	
Civil Engineering Technology, A.A.S. (p. 427)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

Graduates of the Civil Engineering Technology program will:

1. Obtain gainful employment as professional Surveying Technicians, Drafters/Designers, or Laboratory/Field Testing Technicians in a Civil Engineering or Public Works related field.
2. Perform land and construction surveying tasks using current surveying instruments and technologies and computer-aided drafting systems for various land and construction surveying projects.
3. Perform testing and inspection of construction materials and operations in both the laboratory and the field to evaluate compliance with project plans and specifications.

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/civilengineering/>.

Required courses will be taught in sequential blocks of instruction. At least a C- grade is required in all CET courses in order to continue to the next level course. A C- in any Civil Engineering Technology course will allow a student to continue; however, it could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7). A student must have a 2.0 GPA in the program's required curriculum in order to be eligible for a certificate or degree.

After successful completion of Civil Engineering Technology's CET 0110 , Applied Mathematics I, and CET 0120, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 as a prerequisite.

The Associate of Applied Science in Civil Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

Faculty (p. 426)

CET Courses (p. 525)

Civil Engineering Technology Faculty

Coordinator and Clinical Instructor

Leavitt, Darren R., Coordinator, Clinical Instructor, Civil Engineering Technology. Technical Certificate 1983, Idaho State University; B.A. 1991, National-Louis University. (2009)

Instructor

Liimakka, John, Instructor, Civil Engineering Technology. B.S. (2) 1989, M.S. 2004, Michigan Technological University. (2018)

Associate of Applied Science: Civil Engineering Technology

(2 Years)

Code	Title	Credits
Required Courses:		
CET 0111	Drawing with CAD	3
CET 0112	Beginning Survey	3
CET 0121	Civil Engineering Technology Drafting	3
CET 0122	Intermediate Surveying and Spatial Analysis	3
CET 0216	Route Survey and GPS Fundamentals	3
CET 0226	Construction Surveying	3
CET 0228	Principles of GIS	3
CET 0232	Plan Reading and Worksite Safety	3
CET 0243	Public Works	3
CET 0250	Unmanned Aerial Systems/Imagery Analysis	3
CET 0251	Introduction to Legal Descriptions	1
GEMT 3312	Public Land Surveying	3
Complete either this course:		5-6
MATH 1147	College Algebra and Trigonometry	
OR these two courses:		
CET 0110	Applied Mathematics I	
CET 0120	Applied Mathematics II	

Complete either these two courses:

6-8

CET 0115A	Materials Testing I	
CET 0125A	Materials Testing II	
OR these two courses:		
BT 0170	Computer Literacy and Business Software	
GEMT 2231	Survey Computations	
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
ECON 1100	Economic Issues (Each of these 3 courses partially satisfies General Education Objective 6.)	3
or ECON 2201	Principles of Macroeconomics	
or ECON 2202	Principles of Microeconomics	
MATH 1153	Statistical Reasoning	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ²	4
Additional General Education courses		3
Total Credits		61-64

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Civil Engineering Technician

(2 Years)

Code	Title	Credits
Required Courses:		
CET 0110	Applied Mathematics I	3
CET 0111	Drawing with CAD	3
CET 0112	Beginning Survey	3
CET 0120	Applied Mathematics II	3
CET 0121	Civil Engineering Technology Drafting	3
CET 0122	Intermediate Surveying and Spatial Analysis	3
CET 0216	Route Survey and GPS Fundamentals	3
CET 0226	Construction Surveying	3
CET 0228	Principles of GIS	3
CET 0232	Plan Reading and Worksite Safety	3
CET 0243	Public Works	3

CET 0250	Unmanned Aerial Systems/Imagery Analysis	3
CET 0251	Introduction to Legal Descriptions	1
GEMT 3312	Public Land Surveying	3
Complete either these two courses:		6-8
CET 0115A & CET 0125A	Materials Testing I and Materials Testing II	
OR these two courses:		
BT 0170 & GEMT 2231	Computer Literacy and Business Software and Survey Computations	
COMM 1101	Fundamentals of Oral Communication ¹	3
ENGL 1101	Writing and Rhetoric I ¹	3-4
or ENGL 1101P	Writing and Rhetoric I Plus	
Total Credits		52-55

¹ Contributes to a General Education requirement.

Basic Technical Certificate: Materials Testing and Specification

(1 Year)

Code	Title	Credits
Required Courses:		
CET 0115A	Materials Testing I	4
CET 0125A	Materials Testing II	4
Total Credits		8

Computer Aided Design Drafting Technology

(1 to 2 Years)

Program Description	Type	Degree
Mechanical Drafting, I.T.C. (p. 431)	Certificate	
Architectural Drafting, I.T.C. (p. 430)	Certificate	
Computer Aided Design Drafting, A.T.C. (p. 430)	Certificate	
Computer Aided Design Drafting Technology, A.A.S. (p. 430)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

1. The Computer Aided Design Drafting (CADD) Program at the Idaho State University College of Technology will address the interests and requirements of both current and potential participants in career opportunities within engineering and architectural firms, machinery manufacturers, structural steel fabricators, and construction companies.
2. The program will provide skills, knowledge, and training in current Computer Aided Design Drafting Technology theory utilizing various

software programs to produce high-precision graphics required by architecture, engineering, construction, and other industries. Such industries use these graphics to manufacture goods and machinery and assemble structures, both for end consumers and other businesses.

3. Students will learn how to solve practical problems applying applications of mathematics and descriptive geometry. They will understand and demonstrate proper use of national standards in the creation and revision of technical drawings.

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/cadd/>.

Successful completion (D- or better) of each course is required before the student can progress in the program.

Faculty (p. 429)

CADD Courses (p. 533)

Computer Aided Design Drafting Technology Faculty

Coordinator and Senior Instructor

Churba, Alesha E., Program Coordinator and Clinical Senior Instructor, Computer Aided Design Drafting Technology. A.A.S. 2001, B.S. 1987, M.T.D. 2016, Idaho State University. (2008)

Instructor

Cutlers, Ginger, Instructor, Computer Aided Design Drafting Technology. A.A.S. 1983, Idaho State University. (2018)

Associate of Applied Science: Computer Aided Design Drafting Technology

(2 Years)

Code	Title	Credits
Required Courses:		
CADD 0101	Drafting Technology Theory I	2
CADD 0108	Introduction to CAD	4
CADD 0109	Drafting Applied Algebra	2
CADD 0111	Drafting Technology Theory II	2
CADD 0119	Drafting Applied Descriptive Geometry	2
CADD 0121	Mechanical Drafting Technology Theory I	2
CADD 0122	Mechanical Drafting Technology Lab I	3
CADD 0129	Drafting Applied Analytic Geometry	2
CADD 0137	Mechanical Drafting Technology Theory II	2
CADD 0138	Mechanical Drafting Technology Laboratory II	3
CADD 0139	Drafting Applied Trigonometry	2
CADD 0207	Architectural Design Theory I	2
CADD 0208	Architectural Design Laboratory I	3
CADD 0209	Estimation Concepts	2
CADD 0217	Architectural Design Theory II	2
CADD 0218	Architectural Design Laboratory II	3
CADD 0227	Structural Steel Drafting Theory	2
CADD 0228	Structural Steel Drafting Laboratory	3
CADD 0247	Design Integration Theory	2
CADD 0248	Design Integration Laboratory	3
TGE 0158	Employment Strategies	2
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
One four-credit physical science course that includes a lab and partially satisfies a General Education requirement		4
Additional General Education courses		9
Total Credits		66

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Computer Aided Design Drafting

(2 Years)

Code	Title	Credits
Required Courses:		
CADD 0101	Drafting Technology Theory I	2
CADD 0108	Introduction to CAD	4
CADD 0109	Drafting Applied Algebra	2
CADD 0111	Drafting Technology Theory II	2
CADD 0119	Drafting Applied Descriptive Geometry	2
CADD 0121	Mechanical Drafting Technology Theory I	2
CADD 0122	Mechanical Drafting Technology Lab I	3
CADD 0129	Drafting Applied Analytic Geometry	2
CADD 0137	Mechanical Drafting Technology Theory II	2
CADD 0138	Mechanical Drafting Technology Laboratory II	3
CADD 0139	Drafting Applied Trigonometry	2
CADD 0207	Architectural Design Theory I	2
CADD 0208	Architectural Design Laboratory I	3
CADD 0209	Estimation Concepts	2
CADD 0217	Architectural Design Theory II	2
CADD 0218	Architectural Design Laboratory II	3
CADD 0227	Structural Steel Drafting Theory	2
CADD 0228	Structural Steel Drafting Laboratory	3
CADD 0247	Design Integration Theory	2
CADD 0248	Design Integration Laboratory	3
TGE 0158	Employment Strategies	2
COMM 1101	Fundamentals of Oral Communication ¹	3
ENGL 1101	Writing and Rhetoric I ¹	3
or ENGL 1101P	Writing and Rhetoric I Plus	
Total Credits		56

¹ Contributes to a General Education requirement.

Intermediate Technical Certificate: Architectural Drafting

(1 Year)

Code	Title	Credits
Required Courses:		
CADD 0119	Drafting Applied Descriptive Geometry	2
CADD 0129	Drafting Applied Analytic Geometry	2
CADD 0139	Drafting Applied Trigonometry	2
CADD 0207	Architectural Design Theory I	2
CADD 0208	Architectural Design Laboratory I	3
CADD 0209	Estimation Concepts	2
CADD 0217	Architectural Design Theory II	2
CADD 0218	Architectural Design Laboratory II	3

CADD 0227	Structural Steel Drafting Theory	2
CADD 0228	Structural Steel Drafting Laboratory	3
CADD 0247	Design Integration Theory	2
CADD 0248	Design Integration Laboratory	3
ENGL 1101	Writing and Rhetoric I ¹	3
or ENGL 1101P	Writing and Rhetoric I Plus	
COMM 1101	Fundamentals of Oral Communication ¹	3
Total Credits		34

¹ Contributes to a General Education requirement.

Intermediate Technical Certificate: Mechanical Drafting

(1 Year)

Code	Title	Credits
Required Courses:		
CADD 0101	Drafting Technology Theory I	2
CADD 0108	Introduction to CAD	4
CADD 0109	Drafting Applied Algebra	2
CADD 0111	Drafting Technology Theory II	2
CADD 0119	Drafting Applied Descriptive Geometry	2
CADD 0121	Mechanical Drafting Technology Theory I	2
CADD 0122	Mechanical Drafting Technology Lab I	3
CADD 0129	Drafting Applied Analytic Geometry	2
CADD 0137	Mechanical Drafting Technology Theory II	2
CADD 0138	Mechanical Drafting Technology Laboratory II	3
CADD 0139	Drafting Applied Trigonometry	2
ENGL 1101	Writing and Rhetoric I ¹	3
or ENGL 1101P	Writing and Rhetoric I Plus	
COMM 1101	Fundamentals of Oral Communication ¹	3
Total Credits		32

¹ Contributes to a General Education requirement.

Computerized Machining Technology

(1 to 2 Years)

Program Description	Type	Degree
CNC Programmer, B.T.C. (p. 434)	Certificate	
CNC Operator, A.T.C. (p. 433)	Certificate	
Machining Technology, A.T.C. (p. 433)	Certificate	
Computerized Machining Technology, A.A.S. (p. 433)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

Students will:

- develop entry-level skills in the operation of manual lathes and milling machines; and
- develop entry-level skills in CNC (Computerized Numerical Control) machine programming and operation.

The program is accredited by the Association of Technology, Management, and Applied Engineering.

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/computerizedmachining/>.

Successful completion (D- or better) of each course is required before the student can progress in the program. All courses within the program must be completed with an overall 2.0 GPA (C or better average). If a student fails math, then s/he must repeat the course and obtain a passing grade before advancing to the next math class. If the student fails the same math class a second time, then s/he must exit the program and make up the deficiency through Technical General Education or other appropriate methods. The student will then be allowed to repeat the course at the next available program opening.

Faculty (p. 432)

MACH Courses (p. 535)

Computerized Machining Technology Faculty

Coordinator and Clinical Assistant Professor

Clay, Steven E., Coordinator, Clinical Assistant Professor, Computerized Machining Technology. B.S. 1977, Colorado School of Mines; M.S. 1979, Ph.D. 1981, University of Idaho; A.A.S. 2000, Idaho State University. (1999)

Clinical Instructor

Moore, Kenneth, Clinical Instructor, Computerized Machining Technology. Certificate 1981, Utah Technical College. (2008)

Instructor

McCammon, Ashley E., Instructor, Computerized Machining Technology. A.A.S. 2017, Idaho State University. (2016)

Associate of Applied Science: Computerized Machining Technology

(2 Years)

All courses within the program must be completed with an overall 2.0 GPA (C or better average).

Code	Title	Credits
Required Courses:		
MACH 0110	Machine Tool Lab I	3
MACH 0111	Machine Tool Theory I	2
MACH 0112	Machine Math I	3
MACH 0115	Applied Machining Geometry	2
MACH 0120	Machine Tool Lab II	3
MACH 0121	Machine Tool Theory II	2
MACH 0123	Blueprint Reading	1
MACH 0131	CNC Mill Setup	2
MACH 0135	Applied Machining Trigonometry	2
MACH 0141	CNC Lathe Setup	2
MACH 0145	Geometric Dimensioning and Tolerancing I	1
MACH 0220	CAD and CAM Applications I	3
MACH 0221	CAD and CAM Theory I	3
MACH 0225	Interpreting Technical Data	1
MACH 0245	Geometric Dimensioning and Tolerancing II	1

MACH 0261	CNC Introduction to Theory	2
MACH 0265	Introduction to CNC Machine Practice	4
MACH 0270	CNC Machining Practice I	4
MACH 0271	CNC Programming Theory I	2
MACH 0272	CNC Math I	3
MACH 0275	CAD and CAM Theory II	2
MACH 0280	CAD and CAM Applications II	4
MACH 0281	CNC Programming Theory II	1
MACH 0285	CAD and CAM Theory III	2
MACH 0290	CNC Machining Practice II	3
MACH 0291	CAD and CAM Applications III	4
TGE 0158	Employment Strategies	2
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
One four-credit physical science course that includes a lab and partially satisfies General Education Objective 5		4
Additional General Education courses		9
Total Credits		80

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: CNC Operator

(2 Years)

Code	Title	Credits
Required Courses:		
MACH 0110	Machine Tool Lab I	3
MACH 0111	Machine Tool Theory I	2
MACH 0112	Machine Math I	3
MACH 0115	Applied Machining Geometry	2
MACH 0120	Machine Tool Lab II	3
MACH 0121	Machine Tool Theory II	2
MACH 0123	Blueprint Reading	1
MACH 0131	CNC Mill Setup	2
MACH 0135	Applied Machining Trigonometry	2
MACH 0141	CNC Lathe Setup	2
MACH 0145	Geometric Dimensioning and Tolerancing I	1

MACH 0230	CNC Mill Operations	8
MACH 0240	CNC Lathe Operations	8
MACH 0245	Geometric Dimensioning and Tolerancing II	1
MACH 0261	CNC Introduction to Theory	2
MACH 0265	Introduction to CNC Machine Practice	4
TGE 0158	Employment Strategies	2
COMM 1101	Fundamentals of Oral Communication ¹	3
ENGL 1101	Writing and Rhetoric I ¹	3
or ENGL 1101P	Writing and Rhetoric I Plus	
Total Credits		54

¹ Contributes to a General Education requirement.

Advanced Technical Certificate: Machining Technology

(2 Years)

The following required courses must be completed with a 2.0 GPA:

Code	Title	Credits			
Required Courses:			MACH 0261	CNC Introduction to Theory	2
MACH 0110	Machine Tool Lab I	3	MACH 0265	Introduction to CNC Machine Practice	4
MACH 0111	Machine Tool Theory I	2	MACH 0270	CNC Machining Practice I	4
MACH 0112	Machine Math I	3	MACH 0271	CNC Programming Theory I	2
MACH 0115	Applied Machining Geometry	2	MACH 0272	CNC Math I	3
MACH 0120	Machine Tool Lab II	3	MACH 0275	CAD and CAM Theory II	2
MACH 0121	Machine Tool Theory II	2	MACH 0280	CAD and CAM Applications II	4
MACH 0123	Blueprint Reading	1	MACH 0281	CNC Programming Theory II	1
MACH 0131	CNC Mill Setup	2	MACH 0285	CAD and CAM Theory III	2
MACH 0135	Applied Machining Trigonometry	2	MACH 0290	CNC Machining Practice II	3
MACH 0141	CNC Lathe Setup	2	MACH 0291	CAD and CAM Applications III	4
MACH 0145	Geometric Dimensioning and Tolerancing I	1	TGE 0158	Employment Strategies	2
MACH 0220	CAD and CAM Applications I	3	COMM 1101	Fundamentals of Oral Communication ¹	3
MACH 0221	CAD and CAM Theory I	3	ENGL 1101	Writing and Rhetoric I ¹	3
MACH 0225	Interpreting Technical Data	1	or ENGL 1101P	Writing and Rhetoric I Plus	
MACH 0245	Geometric Dimensioning and Tolerancing II	1	Total Credits		70

¹ Contributes to a General Education requirement.

Basic Technical Certificate: CNC Programmer

(1 Year)

Requires machining experience; a student needs instructor permission to enroll in this option.

Code	Title	Credits
Required Courses:		
MACH 0261	CNC Introduction to Theory	2
MACH 0265	Introduction to CNC Machine Practice	4
MACH 0270	CNC Machining Practice I	4
MACH 0271	CNC Programming Theory I	2
MACH 0272	CNC Math I	3
MACH 0281	CNC Programming Theory II	1
MACH 0290	CNC Machining Practice II	3
Total Credits		19

Cosmetology

(Summer Session to 1.5 Years)

Program Description	Type	Degree
Nail Technology, B.T.C. (p. 436)	Certificate	
Cosmetology, A.T.C. (p. 436)	Certificate	

The program also offers Cosmetology Instructor training to industry professionals, which provides them with the educational prerequisites for state licensure as instructors in cosmetology and nail technology.

Overview

This program will provide students with the skills and knowledge to perform a variety of beauty services which cover all phases of the beauty culture such as manicuring, shampooing, hair styling, make-up application, temporary and permanent hair waving, hair straightening, bleaching and tinting, and various skin and scalp treatments. Graduate Cosmetologists will also have strong human relations skills and the ability to communicate with people.

Cosmetology Faculty

Coordinator and Instructor

Jensen, Casie, Coordinator, Instructor, Cosmetology. Technical Certificate (2), 1985, 2002, Idaho State University. (2018)

Instructors

Greene, Phoebe, Instructor, Cosmetology. Certificate 1982, Pocatello Beauty Academy. (2014)

Harris, Heather, Instructor, Cosmetology. Technical Certificate 2004, Idaho State University. (2014)

Quick, Elizabeth, Instructor, Cosmetology. Technical Certificate 1997, Idaho State University. (2018)

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/cosmetology/>. Students may apply for financial aid by going to <http://www.fafsa.gov/>.

All courses in the Cosmetology program require a letter grade of “C” or better in order to progress in the program and to graduate. A grade of “C” or better, in each course taken, is a prerequisite to continue to the next semester.

Faculty (p. 435)

COSM Courses (p. 537)

Advanced Technical Certificate: Cosmetology

(1.5 Years)

Successful completion of the 56 credits and 2000 or more state-required program hours are required to be eligible to take the State Board Examination.

Code	Title	Credits
Required Courses:		
COSM 0116	Introduction to Principles and Practices of Cosmetology	8
COSM 0117	Beginning Principles and Practices of Cosmetology	8
COSM 0126	Fundamental Principles and Practices of Cosmetology	8
COSM 0127	Fundamental Principles and Practices of Cosmetology II	8
COSM 0156	Fundamental Principles and Practices of Cosmetology III	2
COSM 0157	Fundamental Principles and Practices of Cosmetology IV	6
COSM 0236	Advanced Principles and Practices of Cosmetology I	8
COSM 0237	Advanced Principles and Practices of Cosmetology II	8
Total Credits		56

Basic Technical Certificate: Nail Technology

Successful completion is required to be eligible to take the State Board - Examination.

Code	Title	Credits
Required Courses:		
COSM 0150	Foundations of Nail Technology	8
COSM 0151	Applied Practices in Nail Technology	8
Total Credits		16

Diesel/On-Site Power Generation Technology

(1.5 to 2 Years)

Program Description	Type	Degree
Diesel Technology, A.T.C. (p. 438)	Certificate	
On-Site Power Generation Technology, A.T.C. (p. 439)	Certificate	
Diesel Technology, A.A.S. (p. 438)	Degree	A.A.S.
On-Site Power Generation Technology, A.A.S. (p. 438)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Students wishing to complete the On-Site Power Generation Technology portion of the program may have a break in their training between the completion of the Diesel Technology coursework and the beginning of the On-Site Power Generation Technology coursework.

Objective

To produce graduates who can perform complex diagnostic operations, repair, and maintain the latest heavy truck, agricultural, or mining related diesel equipment; to include an option to complete training in diesel electric generator repair.

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/dieseltechnology/>.

Successful completion (D- or better) of each course is required before the student can progress in the program.

Faculty (p. 437)

DESL Courses (p. 544)

Diesel/On-Site Power Generation Technology Faculty

Coordinator and Clinical Senior Instructor

Holmes, Gerald, Coordinator, Clinical Senior Instructor, Diesel/On-Site Power Generation Technology. Technical Certificate 1984, B.S. 2015, Idaho State University. (2005)

Clinical Senior Instructor

Schwope, Lance, Clinical Senior Instructor, Diesel/On-Site Power Generation Technology. A.A.S. 1990, Wyoming Technical College. (2005)

Instructors

Anderson, Terro, Instructor, Diesel/On-Site Power Generation Technology. B.S. 2006, Idaho State University. (2011)

Cornwall, Kevin E., Instructor, Diesel/On-Site Power Generation Technology. (2014)

Nava, David, Instructor, Diesel/On-Site Power Generation Technology. Advanced Technical Certificate (2) 2012, Idaho State University. (2016)

Romriell, Brent, Instructor, Diesel/On-Site Power Generation Technology. A.A.S. (2) 1999, Idaho State University. (2018)

Associate of Applied Science: Diesel Technology

(2 Years)

Code	Title	Credits
Required Courses:		
DESL 0101	Safety and Introduction to Shop Practices	2
DESL 0102	Introduction to Electrical	1
DESL 0103	Electrical Systems	3
DESL 0107	Basic Diesel Electrical Systems	2
DESL 0109	Cab Climate Control	2
DESL 0113	Diesel Engine Fuel Systems	2
DESL 0115	Diesel Hydraulics I	2
DESL 0125	Heavy Duty Power Trains	8
DESL 0184	Diesel Engine Technology	5
DESL 0186	Diesel Engine Electrical Systems	2
DESL 0190	Diesel Engine Emission Systems	1
DESL 0215	Advanced Hydraulics	6
DESL 0217	Advanced Engine Electronics Systems	4
DESL 0231	Live Work Capstone Class	8
or DESL 0232	Internship Capstone Class	
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
Additional General Education courses		12
Total Credits		63

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to AAS English/Communication Requirement; satisfies a General Education requirement.

Associate of Applied Science Degree: On-Site Power Generation Technology

(2 Years)

Code	Title	Credits
Required Courses:		
DESL 0101	Safety and Introduction to Shop Practices	2
DESL 0102	Introduction to Electrical	1
DESL 0103	Electrical Systems	3
DESL 0107	Basic Diesel Electrical Systems	2
DESL 0109	Cab Climate Control	2
DESL 0113	Diesel Engine Fuel Systems	2
DESL 0115	Diesel Hydraulics I	2
DESL 0125	Heavy Duty Power Trains	8
DESL 0184	Diesel Engine Technology	5
DESL 0186	Diesel Engine Electrical Systems	2
DESL 0190	Diesel Engine Emission Systems	1
DESL 0215	Advanced Hydraulics	6
DESL 0217	Advanced Engine Electronics Systems	4
DESL 0231	Live Work Capstone Class	8
or DESL 0232	Internship Capstone Class	
DESL 0241	On Site Power Generation I	8
DESL 0243	On Site Power Generation II	8
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
Additional General Education courses		12
Total Credits		79

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Diesel Technology

(1.5 Years)

Code	Title	Credits
Required Courses:		
DESL 0101	Safety and Introduction to Shop Practices	2
DESL 0102	Introduction to Electrical	1
DESL 0103	Electrical Systems	3
DESL 0107	Basic Diesel Electrical Systems	2
DESL 0109	Cab Climate Control	2
DESL 0113	Diesel Engine Fuel Systems	2
DESL 0115	Diesel Hydraulics I	2
DESL 0125	Heavy Duty Power Trains	8
DESL 0184	Diesel Engine Technology	5
DESL 0186	Diesel Engine Electrical Systems	2
DESL 0190	Diesel Engine Emission Systems	1
DESL 0215	Advanced Hydraulics	6
DESL 0217	Advanced Engine Electronics Systems	4
DESL 0231	Live Work Capstone Class	8
or DESL 0232	Internship Capstone Class	

TGE 0158	Employment Strategies	2
TGE 1150	Applied Social Sciences in the Workplace ¹	3
COMM 1101	Fundamentals of Oral Communication ¹	3
Total Credits		56

Code	Title	Credits
Elective Courses:		
DESL 0298	Special Topics	1-8
WELD 0105	Welding	1-4

¹ Contributes to a General Education requirement.

Advanced Technical Certificate: On-Site Power Generation Technology

(2 Years)

Code	Title	Credits
Required Courses:		
DESL 0101	Safety and Introduction to Shop Practices	2
DESL 0102	Introduction to Electrical	1
DESL 0103	Electrical Systems	3
DESL 0107	Basic Diesel Electrical Systems	2
DESL 0109	Cab Climate Control	2
DESL 0113	Diesel Engine Fuel Systems	2
DESL 0115	Diesel Hydraulics I	2
DESL 0125	Heavy Duty Power Trains	8
DESL 0184	Diesel Engine Technology	5
DESL 0186	Diesel Engine Electrical Systems	2
DESL 0190	Diesel Engine Emission Systems	1
DESL 0215	Advanced Hydraulics	6
DESL 0217	Advanced Engine Electronics Systems	4
DESL 0231	Live Work Capstone Class	8
or DESL 0232	Internship Capstone Class	
DESL 0241	On Site Power Generation I	8
DESL 0243	On Site Power Generation II	8
TGE 0158	Employment Strategies	2
TGE 1150	Applied Social Sciences in the Workplace ¹	3
COMM 1101	Fundamentals of Oral Communication ¹	3
Total Credits		72

Code	Title	Credits
Elective Courses:		
DESL 0298	Special Topics	1-8
WELD 0105	Welding	1-4

¹ Contributes to a General Education requirement.

Early Childhood Care and Education

(1 to 2 Years)

Program Description	Type	Degree
Early Childhood Care and Education, B.T.C. (p. 442)	Certificate	
Early Childhood Care and Education, I.T.C. (p. 441)	Certificate	
Early Childhood Care and Education, A.A.S. (p. 441)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Overview

This program will provide students with the skills and knowledge to be responsible for meeting the specific needs of a group of children by nurturing the children's physical, social, emotional, and intellectual needs; setting up and maintaining the early care and education environment; and establishing a liaison relationship between families and the program.

Program Information

Required program courses are taught consecutively. All courses in the major and ENGL 1101 or ENGL 1101P, and ENGL 1102, when required, must be completed with a grade of 'C' or better to advance to the following courses.

Students must maintain a 2.0 GPA in all other general education courses to graduate. Specific information is available in the program's student handbook.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/earlychildcareeducation/>. Federal Student Aid is not available for the Basic Technical Certificate in Early Childhood Care and Education. Students may apply for financial aid for the Intermediate Technical Certificate and Associate of Applied Science degree by going to <http://www.fafsa.gov/>.

The Associate of Applied Science degree may be articulated into the Bachelor of Arts Blended Early Childhood Education degree that is offered in the College of Education. The Associate of Applied Science degree serves as the Early Childhood curriculum core of this credentialing degree for working with and teaching children birth through age eight. More information about the Bachelor of Arts in Blended Early Childhood Education can be found under Family and Consumer Science (p. 221) within the College of Education section of this catalog.

The Associate of Applied Science Early Childhood Care and Education program is accredited by the National Association for the Education of Young Children.

Faculty (p. 440)

CHLD Courses (p. 521)

Early Childhood Care and Education Faculty

Co-Coordinator and Clinical Senior Instructor

Koplin, Amy, Co-Coordinator, Clinical Senior Instructor, Early Childhood Care and Education. B.A. 2003, M.Ed. 2007, Idaho State University. (2010)

Co-Coordinator and Clinical Instructor

Grimes, Carol, Co-Coordinator, Clinical Instructor, Early Childhood Care and Education. B.A. 1984, Humboldt State University. (1983-2001, 2010)

Associate of Applied Science: Early Childhood Care and Education

(2 Years)

Code	Title	Credits
Required Courses:		
CHLD 0105	Introduction to Early Childhood Education	3
CHLD 0111	Health, Safety, and Nutrition	3
CHLD 0112	Learning Environments in Early Childhood Care and Education	1
CHLD 0120	Social and Emotional Development in Early Childhood Care and Education	6
CHLD 0125	Guidance in Early Childhood Care and Education	3
CHLD 0130	Physical and Cognitive Development in Early Childhood	6
CHLD 0135	Fostering Creativity	3
CHLD 0141	Family Centered Care and Program Management in Early Childhood Care and Education	3
CHLD 0151	Curriculum Planning and Implementation in Early Childhood Care and Education	4
CHLD 0210	Advanced Topics in Early Childhood Care and Education	3
CHLD 0215	Children with Exceptionalities	2
CHLD 0220	Administration and Program Management in Early Childhood Care and Education	3

CHLD 0250	Capstone Project in Early Childhood Care and Education	1
General Education requirements¹		
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I ² Writing and Rhetoric I Plus	3-4
ENGL 1102	Writing and Rhetoric II ²	3
COMM 1101	Fundamentals of Oral Communication ²	3
BIOL 1101 & 1101L	Biology I and Biology I Lab ²	4
OR		
BIOL 1100 & 1100L	Concepts of Biology and Concepts of Biology Lab ²	
PSYC 1101 or SOC 1101	Introduction to Psychology ² Introduction to Sociology	3
	Objective 3	3
	Select 3 credits from Objectives 4, 7, 8, or 9	3
Total Credits		63-64

Code	Title	Credits
Elective Courses:		
CHLD 0296	Independent Study	1-8
CHLD 0298	Special Topics	1-8

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Intermediate Technical Certificate: Early Childhood Care and Education

(1 Year Daytime or 2 Years Evening)

Code	Title	Credits
Required Courses:		
CHLD 0105	Introduction to Early Childhood Education	3
CHLD 0111	Health, Safety, and Nutrition	3
CHLD 0112	Learning Environments in Early Childhood Care and Education	1
CHLD 0120	Social and Emotional Development in Early Childhood Care and Education	6
CHLD 0125	Guidance in Early Childhood Care and Education	3
CHLD 0130	Physical and Cognitive Development in Early Childhood	6

CHLD 0135	Fostering Creativity	3
CHLD 0141	Family Centered Care and Program Management in Early Childhood Care and Education	3
CHLD 0151	Curriculum Planning and Implementation in Early Childhood Care and Education	4
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I ¹ Writing and Rhetoric I Plus	3
Total Credits		35

¹ Contributes to a General Education requirement.

Basic Technical Certificate: Early Childhood Care and Education

(1 Year Evening)

Program offering of this option will depend upon sufficient student interest and availability of instructor.

Code	Title	Credits
Required Courses:		
CHLD 0100	CDA Prep 1	6
CHLD 0101	CDA Prep 2	6
Total Credits		12

Intermediate Technical Certificate Early Childhood Care and Education Alternate Pathway

Students who have earned a Basic Technical Certificate (12 credits) need the following courses to build on these credits toward the Intermediate Technical Certificate (32 credits):

Code	Title	Credits
CHLD 0113	Foundations for Professional Preparation in Early Childhood Care and Education ¹	5
CHLD 0115	Internship in Early Childhood Care and Education ¹	15

¹ Students interested in this alternate pathway should contact program faculty prior to registering for this course.

Energy Systems Technology and Education Center

Program Description	Type	Degree
Energy Systems Technology, I.T.C. (p. 451)	Certificate	
Energy Systems Electrical Engineering Technology, A.A.S. (p. 446)	Degree	A.A.S.
Energy Systems Renewable Energy Technology, I.T.C. (INACTIVE) (p. 452)	Certificate	
Energy Systems Instrumentation Engineering Technology, A.A.S. (p. 446)	Degree	A.A.S.
Energy Systems Mechanical Engineering Technology, A.A.S. (p. 447)	Degree	A.A.S.
Energy Systems Nuclear Operations Technology, A.A.S. (p. 447)	Degree	A.A.S.
Industrial Controls, A.A.S. (p. 449)	Degree	A.A.S.
Energy Systems Wind Engineering Technology, A.A.S. (INACTIVE) (p. 448)	Degree	A.A.S.
Industrial Cybersecurity Engineering Technology, I.T.C. (p. 450)	Certificate	
Industrial Cybersecurity Engineering Technology, A.A.S. (p. 450)	Degree	A.A.S.
Instrumentation and Automation Assistant, B.T.C. (p. 452)	Certificate	
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Overview

In response to a growing need for Engineering Technicians in the energy sector, the College of Technology at Idaho State University has established the Energy Systems Technology and Education Center (ESTEC) on the Idaho State University campus in Pocatello, Idaho.

ESTEC offers a unique approach to educating students by providing the specific knowledge and skills needed in energy production. The skills requirements have been developed in partnership with energy utilities and vendors to assure that program graduates enter the workforce with the precise skills required by the energy industry in a broad spectrum of electrical, oil, gas, renewable, and allied manufacturing sectors. Students learn through traditional classroom experience as well as through extensive laboratory exercises. Electrical generation technologies addressed include nuclear, coal, gas, and renewable technologies.

ESTEC was formed as a public/private partnership between Idaho State University, Idaho National Laboratory, and Partners for Prosperity. Curriculum and laboratory resources were developed with external funding from the US Department of Labor and the National Science Foundation.

Objectives

The Educational Objectives of the Energy Systems Engineering Technology programs at ISU reflect the application of curricular content. Graduates of the programs in the Energy Systems Technology & Education Center (ESTEC) at Idaho State University are able to:

1. Practice the Energy Systems Engineering Technology discipline successfully within community-accepted standards.

2. Provide leadership for and communicate effectively in a team-based environment in order to be agents of change in dynamically changing organizations.
3. Analyze and design optimized solutions to systems of people, technology, and information.
4. Practice teamwork and communications skills to develop a successful career.
5. Fulfill professional and ethical responsibilities in the practice in energy systems engineering, including social, environmental and economical considerations.
6. Engage in professional service, such as participation in professional society and community service.
7. Engage in life-long learning activities, such as graduate studies or professional workshops.
8. Develop a professional career in the prevailing market that meets personal goals, objectives and desires.

Students interested in an Energy Systems program should understand that a criminal record may affect employability in the energy industry.

Graduates will have hands-on experience setting up and troubleshooting a variety of energy and manufacturing components and systems through knowledge of various types of electrical power generation methods and an understanding of industry health and safety practices.

Admission

Students must meet minimum admissions criteria to qualify for entry into an Energy Systems Engineering Technology program. See specific program requirements at <https://www.isu.edu/estec/>. Acceptance into ESTEC programs is based upon available openings and other competitive criteria defined on the application.

Entry into the Energy Systems Instrumentation Engineering Technology, Energy Systems Electrical Engineering Technology, and Industrial Controls Associate degree programs requires completion of: ESET 0100, ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, and ESET 0142; the first two years of the Electrical Apprenticeship AAS degree program; or instructor approval. Program degrees will be awarded concurrently with completion of the Electrical Apprenticeship degree requirements.

Students are required to earn a grade of C- (1.7) or better in each ESET and INST prefixed course and a cumulative 2.0 GPA in ESET and INST courses to advance each semester and count toward an ESTEC degree or certificate. If the student fails to successfully complete any math, theory, or lab course, then that course must be repeated and a passing grade obtained before the student can advance in the program. The student must exit the program and make up the deficiency through advisor-approved methods. The student will then be allowed to repeat the course at the next available program opening. Specific information is available in the program's student handbook.

The courses listed in each program will be taught in sequential blocks of instruction. Students must register concurrently for the lab course associated with each theory course. For a Program Information Packet, visit <https://www.isu.edu/estec/>, which leads to descriptions of each program in general, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses.

For all Energy Systems Engineering Technology programs, a student who has successfully completed ESET 0141 and ESET 0142, Applied Mathematics I and II, may enroll directly into an academic math course which requires MATH 1147 as a prerequisite. A student who has successfully completed ESET 0140, Applied Technical Intermediate Algebra, may enroll directly into an academic math course that requires MATH 1108 as a prerequisite.

Official articulation agreements have been established with other post-secondary and secondary schools. Where these agreements exist, the specific block of training (i.e., session/ semester/year) will be accepted as equivalent to that taught at ISU and will count equally toward graduation.

ESTEC courses 0103 through 0108L are designed to allow students the opportunity to take segments of the curriculum in circumstances where they may already have some competencies resulting from prior courses, work experience, or taken by high school students for dual enrollment credits.

Completion of the first seven courses (ESET 0103 through ESET 0106 and their associated labs) constitutes equivalence to ESET 0141, ESET 0101, and ESET 0101L.

Completion of the last four courses (ESET 0107 through ESET 0108L) constitutes equivalency to ESET 0142, ESET 0102, and ESET 0102L.

Students should be familiar with AC and DC electronic and electrical applications, electrical power circuits, and electrical circuit analysis.

General knowledge of electrical power transmission and distribution protection and controls is required. Students should also have working knowledge of control systems, data acquisition, and electrical sensors.

ESTEC currently offers one Basic Technical Certificate, two Intermediate Technical Certificates, and six Associate of Applied Science degrees that integrate the education and training required for graduates to maintain

existing energy systems as well as to install, configure, and test components in newly constructed facilities.

The Associate of Applied Science programs include:

- Energy Systems Electrical Engineering Technology
- Energy Systems Instrumentation Engineering Technology
- Energy Systems Mechanical Engineering Technology
- Energy Systems Nuclear Operations Technology
- Industrial Cybersecurity Engineering Technology
- Industrial Controls
- Energy Systems Wind Engineering Technology (Inactive)

The Basic Technical Certificate program includes:

- Instrumentation and Automation Assistant

The Intermediate Technical Certificate programs include:

- Energy Systems Technology
- Industrial Cybersecurity Engineering Technology
- Energy Systems Renewable Energy Technology (Inactive)

The following programs are accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org:

- Energy Systems Electrical Engineering Technology
- Energy Systems Instrumentation Engineering Technology
- Energy Systems Mechanical Engineering Technology
- Energy Systems Nuclear Operations Technology

Faculty (p. 444)

ESET Courses (p. 557)

Energy Systems Technology and Education Center Faculty

Executive Director

Bowen, Vince, Executive Director, Energy Systems Technology and Education Center. B.U.S. 2008, M.P.A. 2010, Idaho State University. (2019)

Department Chair and Clinical Instructor

Pitcher, Ryan, Department Chair, Clinical Instructor, Energy Systems Technology and Education Center. Technical Certificate 2002, A.A.S. 2000, Idaho State University. (2011)

Coordinator and Clinical Assistant Professor

Smith, Evan, Coordinator, Clinical Assistant Professor, Mechanical Engineering Technology. B.S. 1981, University of Utah. (2010)

Coordinator and Clinical Instructor

Perschon, Jeremy, Coordinator, Clinical Instructor, Instrumentation Engineering Technology. A.A.S. 2008, Idaho State University. (2010)

Coordinators and Instructors

Fort, Michael, Coordinator, Instructor, Nuclear Operations Technology. (2009)

McBride, Sean, Coordinator, Instructor, Cyber-Physical Security. B.B.A. 2004, M.B.A. 2006, Idaho State University; M.G.Man. 2010, Thunderbird School of Global Management. (2017)

Williams, Val, Coordinator, Instructor, Electrical Engineering Technology. A.A.S. 1990, Idaho State University. (2015)

Clinical Instructor

Maclure, Steven G., Clinical Instructor, Energy Systems Engineering Technology. A.A.S. 1984, B.A. 1991, Idaho State University. (2008)

Instructors

Brooks, Gregory B., Instructor, Instrumentation Engineering Technology. (2015)

Ellis, Sharie M., Instructor, Energy Systems Engineering Technology. B.S. 1983, Brigham Young University. (2017)

Tauscher, Michael, Instructor, Energy Systems Engineering Technology. A.A.S. 1995, Idaho State University. (2010)

(Vacant)

Emeritus

Snarr, Terry L., Program Coordinator and Senior Instructor, Instrumentation and Automation Engineering Technology. 1985-2015

Associate of Applied Science: Energy Systems Electrical Engineering Technology

(2 Years)

Program Objectives

1. Solve technical problems typical of those encountered in the electrical engineering technology discipline by using critical thinking skills, current technology, and practical use of trade equipment.
2. Work and communicate effectively in diverse teams in an industrial setting.
3. Understand the importance to pursue lifelong learning and stay current with technical standards and codes.

Students must register concurrently for the lab course associated with each theory course.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
ESET 0101	Electrical Circuits I	5
ESET 0101L	Electrical Circuits I Laboratory	5
ESET 0102	Electrical Circuits II	5
ESET 0102L	Electrical Circuits II Laboratory	5
ESET 0141	Applied Mathematics I	4
ESET 0142	Applied Mathematics II	4
ESET 0181	Information Technology Fundamentals	3

ESET 0212	Electrical Systems Documentation and Standards	1
ESET 0222	Process Control Theory	3
ESET 0226	Process Control Devices Laboratory	1
ESET 0292	Electrical Engineering Technology I	7
ESET 0292L	Electrical Engineering Technology I Laboratory	5
ESET 0293	Electrical Engineering Technology II	5
ESET 0293L	Electrical Engineering Technology II Laboratory	4
TGE 0159	Internship Strategies	1
General Education courses ¹		
CHEM 1100	Concepts of Chemistry ²	4
or PHYS 1101/1101L	Elements of Physics	
COMM 1101	Fundamentals of Oral Communication ²	3
MATH 1153	Statistical Reasoning ²	3-4
or MATH 1170	Calculus I	
Additional General Education courses		6
Total Credits		76-77

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Associate of Applied Science: Energy Systems Instrumentation Engineering Technology

(2 Years)

Program Objectives

1. Solve technical problems typical of those encountered in the instrumentation engineering technology discipline by using critical thinking skills, current technology, principles of mathematics, and applied science.
2. Work and communicate effectively in multidisciplinary teams in both industrial and academic settings.
3. Understand current professional issues and the need to pursue lifelong learning.

Graduates will have a fundamental knowledge of energy systems, thermodynamics, electronics and electrical systems. They will have extensive hands-on experience setting up and troubleshooting single and three-phase motor controls, variable frequency drives, programmable logic controllers, sensors, relays, timers, solenoids, and human machine interface stations. They will be able to install, troubleshoot and calibrate instrumentation that measures and controls temperature, level, flow, pressure and other process variables.

Students must register concurrently for the lab course associated with each theory course.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
ESET 0101	Electrical Circuits I	5
ESET 0101L	Electrical Circuits I Laboratory	5
ESET 0102	Electrical Circuits II	5
ESET 0102L	Electrical Circuits II Laboratory	5
ESET 0110	Introduction to Process Control	1
ESET 0110L	Introduction to Process Control Laboratory	1
ESET 0141	Applied Mathematics I	4
ESET 0142	Applied Mathematics II	4
INST 0281	Electrical Automation Theory	8
INST 0282	Electrical Automation Laboratory	5
INST 0292	Process Measurement and Control Theory	10
INST 0293	Process Measurement and Control Laboratory	4

TGE 0159	Internship Strategies	1
General Education courses ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
MATH 1153	Statistical Reasoning ²	3
or MATH 1170	Calculus I	
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ²	4

or CHEM 1100	Concepts of Chemistry	
Additional General Education courses		6
Total Credits		76

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Associate of Applied Science: Energy Systems Mechanical Engineering Technology

(2 Years)

Program Objectives

1. Solve technical problems typical of those encountered in the energy systems mechanical engineering technology discipline.
2. Work and communicate effectively in multidisciplinary teams.
3. Stay current on industry standards, challenges and innovations.

Students must register concurrently for the lab course associated with each theory course.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
ESET 0121	Basic Electricity and Electronics	4
ESET 0121L	Basic Electricity and Electronics Laboratory	3
ESET 0122	Electrical Systems and Motor Control Theory	3
ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
ESET 0123	Mechanical Power Transmission	2
ESET 0123L	Mechanical Power Transmission Laboratory	1
ESET 0125	Introduction to Structural Welding	1
ESET 0126	Introduction to Mechanical Drafting and Computer Aided Design	1
ESET 0127	Mechanical Power Transmission II	2
ESET 0127L	Mechanical Power Transmission Laboratory II	2
ESET 0140	Applied Technical Intermediate Algebra	5

ESET 0220	Thermal Cycles and Heat Transfer	2
ESET 0221	Boiler Reactor and Turbine Principles	2
ESET 0239	Pumps, Valves, and Fluid Flow	5
ESET 0239L	Pumps, Valves, and Fluid Flow Laboratory	4
ESET 0242	Practical Process Measurements and Control	2
ESET 0243	Hydraulic and Pneumatic Power	2
ESET 0243L	Hydraulic and Pneumatic Power Laboratory	2
ESET 0244	Rotating Equipment and Millwright Maintenance	4
ESET 0244L	Rotating Equipment and Millwright Maintenance Laboratory	3
ESET 0245	Fundamentals of Heat Exchangers	2
ESET 0246	Materials and Metallurgy	2
TGE 0159	Internship Strategies	1
General Education courses ¹		
CHEM 1100	Concepts of Chemistry ²	4
or PHYS 1101/1101L	Elements of Physics	
COMM 1101	Fundamentals of Oral Communication ²	3
MATH 1153	Statistical Reasoning ²	3-4
or MATH 1160	Survey of Calculus	
or MATH 1170	Calculus I	
Additional General Education courses		6
Total Credits		74-75

¹ See General Education Requirements (<http://coursecat.isu.edu/undergraduate/technology>) (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Associate of Applied Science: Energy Systems Nuclear Operations Technology

(2 Years)

Program Objectives

1. Apply a fundamental knowledge of mathematics, sciences (e.g. - physics, chemistry, and thermodynamics), and an understanding of the nuclear process while working in the nuclear industry.

2. Demonstrate critical thinking and analytical problem solving skills, with special emphasis on workplace, environmental, and safety concerns, to solve professional and technical challenges in the nuclear industry.
3. Exhibit an understanding and adherence to the professional, social and ethical standards of the nuclear industry.
4. Practice a commitment to be professionally and technically current with changing technologies in the nuclear industry through self-improvement and lifelong learning.
5. Demonstrate communication and teamwork skills in diverse and multidisciplinary teams, while striving for increasing responsibilities and positions of leadership in the nuclear industry.

Students must register concurrently for the lab course associated with each theory course.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
ESET 0121	Basic Electricity and Electronics	4
ESET 0121L	Basic Electricity and Electronics Laboratory	3
ESET 0122	Electrical Systems and Motor Control Theory	3
ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
ESET 0140	Applied Technical Intermediate Algebra	5
ESET 0151	Nuclear Industry Fundamental Concepts	3
ESET 0151L	Nuclear Industry Fundamental Concepts Lab	1
ESET 0152	Nuclear Careers and Information ¹	3
ESET 0153	Radiological Control Fundamentals	3
ESET 0220	Thermal Cycles and Heat Transfer	2
ESET 0221	Boiler Reactor and Turbine Principles	2

ESET 0242	Practical Process Measurements and Control	2
ESET 0248	Power Plant Drawings	2
ESET 0249	Reactor Plant Materials	3
ESET 0250	Radiation Detection and Protection	2
ESET 0251	Reactor Theory Safety and Design	4
ESET 0252	Power Plant Components	2
ESET 0279	Conduct of Operations	2
ESET 0280	Capstone and Case Studies in Nuclear Engineering Technology	2

General Education Objective 3: Complete one of the following ² 3-4

MATH 1153	Statistical Reasoning ²	
MATH 1160	Survey of Calculus ²	
MATH 1170	Calculus I ²	

General Education courses ²

Take one of the following: 3-5

CHEM 1101	Introduction to Chemistry ²	
OR		
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab ²	
COMM 1101	Fundamentals of Oral Communication ²	3
ENGL 1101	Writing and Rhetoric I ²	3
ENGL 1102	Writing and Rhetoric II ²	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ²	4
TGE 1257	Applied Ethics in Technology ²	3
General Education Objective 6 ²		3

Total Credits 76-79

¹ Must repeat 1-credit course a minimum of three times.

² Contributes to a General Education requirement.

See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Associate of Applied Science: Energy Systems Wind Engineering Technology

(2 Years)

Applications for this program are not currently being accepted.

Objective:

Graduates will be able to: (1) solve technical problems typical of those encountered in the energy systems wind engineering technology discipline by using critical thinking skills, current technology, and principles of mathematics and applied science; (2) work and communicate effectively in multidisciplinary teams in both industrial and academic settings; and (3) understand current professional issues and the need to pursue lifelong learning.

Students must register concurrently for the lab course associated with each theory course.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0121	Basic Electricity and Electronics	4
ESET 0121L	Basic Electricity and Electronics Laboratory	3
ESET 0122	Electrical Systems and Motor Control Theory	3
ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
ESET 0123	Mechanical Power Transmission	2
ESET 0123L	Mechanical Power Transmission Laboratory	1
ESET 0141	Applied Mathematics I	4

ESET 0142	Applied Mathematics II	4	ESET 0247	Wind Energy Control Systems	2
ESET 0150	Introduction to Wind Energy Systems	2	ESET 0247L	Wind Energy Control Systems Laboratory	1
ESET 0150L	Introduction to Wind Energy Systems Laboratory	1	TGE 0159	Internship Strategies	1
ESET 0212	Electrical Systems Documentation and Standards	1	General Education courses ¹		
ESET 0231	Microcontrollers	2	COMM 1101	Fundamentals of Oral Communication ²	3
ESET 0231L	Microcontrollers Laboratory	1	MATH 1153	Statistical Reasoning ²	3-4
ESET 0232	Electrical Machines	3	or MATH 1170	Calculus I	
ESET 0232L	Electrical Machines Laboratory	3	PHYS 1101	Elements of Physics	4
ESET 0233	Electrical Power Systems	3	& 1101L	and Elements of Physics Laboratory ²	
ESET 0233L	Electrical Power Systems Laboratory	3	Additional General Education courses		6
ESET 0240	Pumps	3	Total Credits		72-73
ESET 0240L	Pump Applications Laboratory	3			
ESET 0243	Hydraulic and Pneumatic Power	2			
ESET 0243L	Hydraulic and Pneumatic Power Laboratory	2			

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Associate of Applied Science: Industrial Controls

(1 Year)

Description:

Industrial Controls is offered as a second AAS degree following completion of an Electrical Journeyman AAS, or an Electrical Apprenticeship AAS program and completion of all General Education requirements. Students must have completed a minimum of three years of the Electrical Apprenticeship Program towards the first AAS degree before being able to apply for the Industrial Controls program. Students in this program can complete coursework focusing on either Instrumentation and Process Control or Motor Control and Protective Relaying.

Program Objectives

1. Solve technical problems typical of those encountered in the energy systems instrumentation engineering technology discipline by using critical thinking skills, current technology, and principles of mathematics and applied science.
2. Work and communicate effectively in multidisciplinary teams in both industrial and academic settings.
3. Understand current professional issues and the need to pursue lifelong learning.

Prerequisite Courses

Students must complete nine (9) credits of the University's General Education Objectives (see the General Education Requirements described in the Academic Information section of this catalog) and a minimum of five to six (5-6) credits of program-specific course work before entering this program. Listed below are the prerequisite requirements for the Associate of Applied Science: Industrial Controls. Students must meet with the program coordinator prior to beginning required course work.

Code	Title	Credits
Prerequisite Courses (14-15 Credits)		
ESET 0110 & 0110L	Introduction to Process Control and Introduction to Process Control Laboratory	2-3
or ESET 0111	Principles of AC Circuit Analysis	

ESET 0112	Introduction to Digital Logic	2
ESET 0112L	Introduction to Digital Logic Laboratory	1
COMM 1101	Fundamentals of Oral Communication ¹	3
ENGL 1101	Writing and Rhetoric I ¹	3
MATH 1143	College Algebra ¹	3

Required Courses (33-34 Credits)

INST 0281 & INST 0282 & INST 0292 & INST 0293	Electrical Automation Theory and Electrical Automation Laboratory and Process Measurement and Control Theory and Process Measurement and Control Laboratory	27
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OR

ESET 0212 & ESET 0222 & ESET 0226 & ESET 0292 & ESET 0292L & ESET 0293 & ESET 0293L	Electrical Systems Documentation and Standards and Process Control Theory and Process Control Devices Laboratory and Electrical Engineering Technology I and Electrical Engineering Technology I Laboratory and Electrical Engineering Technology II and Electrical Engineering Technology II Laboratory	26
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CHEM 1100 or PHYS 1101/1101L	Concepts of Chemistry ¹ Elements of Physics	3-4
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Objective 6: Social and Behavioral Ways of Knowing ¹		3
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Total Credits		47-49
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¹ Contributes to General Education Requirement.

Associate of Applied Science: Industrial Cybersecurity Engineering Technology

(2 Years)

Program Objectives

1. Identify and respond to security concerns relating to operational cyber physical systems.
2. Coordinate among key stakeholders for matters dealing with the security of cyber physical systems.
3. Promote stakeholder awareness and education relating to cyber physical systems security.
4. Establish optimal policies for managing risk in cyber physical systems.
5. Use security criteria to influence technology selection and deployment.

Students must meet with the Program Coordinator prior to beginning course work.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
ESET 0181	Information Technology Fundamentals	3
ESET 0281	Defending Critical Infrastructure and Cyber-Physical Systems	3
ESET 0282A	Introduction to Network Security I	1
ESET 0282B	Introduction to Network Security II	2
ESET 0283	Information System Security Design	3
ESET 0284	Risk Management for Critical Data Systems	3
ESET 0286	Critical Network Security	3
ESET 0287	Professional Certification	3
ESET 0289	Cyber Physical Systems Security Capstone	3-6
or ESET 0297	Internship	
Choose a minimum of seven (7) credits:		7-10
ESET 0101 & ESET 0102	Electrical Circuits I and Electrical Circuits II	10
OR		
ESET 0121 & 0121L	Basic Electricity and Electronics and Basic Electricity and Electronics Laboratory	7
Choose a minimum of five (5) credits:		5-8
ESET 0140	Applied Technical Intermediate Algebra	5

OR

ESET 0141 & ESET 0142	Applied Mathematics I and Applied Mathematics II	8
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Choose a minimum of twelve (12) credits: 12

ESET 0120	Introduction to Energy Systems	2
ESET 0120L	Introduction to Energy Systems Laboratory	1

ESET 0122	Electrical Systems and Motor Control Theory	3
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ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
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ESET 0220	Thermal Cycles and Heat Transfer	2
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ESET 0221	Boiler Reactor and Turbine Principles	2
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ESET 0222	Process Control Theory	3
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ESET 0223	Digital Control Theory	2
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ESET 0226	Process Control Devices Laboratory	1
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ESET 0227	Digital Control Systems Laboratory	1
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ESET 0242	Practical Process Measurements and Control	2
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ESET 0245	Fundamentals of Heat Exchangers	2
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ESET 0251	Reactor Theory Safety and Design	4
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ESET 0292	Electrical Engineering Technology I	7
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ESET 0292L	Electrical Engineering Technology I Laboratory	5
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INST 0281	Electrical Automation Theory	8
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INST 0282	Electrical Automation Laboratory	5
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General Education Objective 3: (Minimum of 3 Credits):¹

MATH 1153	Statistical Reasoning	3
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OR

MATH 1160	Survey of Calculus	3
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OR

MATH 1170	Calculus I	4
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Additional General Education Requirements:¹

PHYS 1101	Elements of Physics	3
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PHYS 1101L	Elements of Physics Laboratory	1
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ENGL 1101	Writing and Rhetoric I	3
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COMM 1101	Fundamentals of Oral Communication	3
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General Education Objective 6		3
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Total Minimum Credits 69

¹ Contributes to a General Education requirement.

Intermediate Technical Certificate: Industrial Cybersecurity Engineering Technology

(1 Year)

Program Objectives

1. Identify and respond to security concerns relating to operational cyber physical systems.
2. Coordinate among key stakeholders for matters dealing with the security of cyber physical systems.
3. Promote stakeholder awareness and education relating to cyber physical systems security.
4. Establish optimal policies for managing risk in cyber physical systems.
5. Use security criteria to influence technology selection and deployment.

Students must have completed a previous degree relating to Computer Science or Information Technology Systems and meet ESTEC acceptance requirements.

Students are required to meet with the Program Coordinator before beginning course work. Students entering from other programs may be able to waive or substitute courses.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
ESET 0120	Introduction to Energy Systems	2

ESET 0120L	Introduction to Energy Systems Laboratory	1
ESET 0181	Information Technology Fundamentals	3
ESET 0223	Digital Control Theory	2
ESET 0227	Digital Control Systems Laboratory	1
ESET 0242	Practical Process Measurements and Control	2
ESET 0281	Defending Critical Infrastructure and Cyber-Physical Systems	3
ESET 0282A	Introduction to Network Security I	1
ESET 0282B	Introduction to Network Security II	2
ESET 0283	Information System Security Design	3
ESET 0284	Risk Management for Critical Data Systems	3
ESET 0286	Critical Network Security	3
ESET 0287	Professional Certification	3
ESET 0289	Cyber Physical Systems Security Capstone	3
	or ESET 0297 Internship	
Total Credits		34

Intermediate Technical Certificate: Energy Systems Technology

(1 Year)

Program Prerequisites:

Students must be qualified for college-level coursework in English and Math (see an advisor for details).

Description:

Fundamental electronics, electrical, and energy systems program.

Objective:

To prepare students as entry-level technician and maintenance assistants to meet the needs of the electrical and process industry.

Code	Title	Credits
Required Courses:		
ESET 0100	Engineering Technology Orientation	1
ESET 0100L	Engineering Technology Orientation Lab	1
Select a minimum of sixteen (16) credits from the following courses: ¹		16
ESET 0101	Electrical Circuits I	5
ESET 0101L	Electrical Circuits I Laboratory	5
ESET 0102	Electrical Circuits II	5
ESET 0102L	Electrical Circuits II Laboratory	5
ESET 0110	Introduction to Process Control	1
ESET 0110L	Introduction to Process Control Laboratory	1
ESET 0121	Basic Electricity and Electronics	4

ESET 0121L	Basic Electricity and Electronics Laboratory	3
ESET 0122	Electrical Systems and Motor Control Theory	3
ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
ESET 0123	Mechanical Power Transmission	2
ESET 0123L	Mechanical Power Transmission Laboratory	1
ESET 0125	Introduction to Structural Welding	1
ESET 0126	Introduction to Mechanical Drafting and Computer Aided Design	1
ESET 0127	Mechanical Power Transmission II	2
ESET 0127L	Mechanical Power Transmission Laboratory II	2
ESET 0151	Nuclear Industry Fundamental Concepts	3
ESET 0151L	Nuclear Industry Fundamental Concepts Lab	1
ESET 0152	Nuclear Careers and Information	1
ESET 0153	Radiological Control Fundamentals	3
Select a minimum of eight (8) credits from the following math courses:		8
ESET 0140	Applied Technical Intermediate Algebra	5
ESET 0141	Applied Mathematics I	4
ESET 0142	Applied Mathematics II	4
MATH 1143	College Algebra	3

MATH 1144	Trigonometry	2
MATH 1147	College Algebra and Trigonometry	5
MATH 1153	Statistical Reasoning	3
MATH 1170	Calculus I	4
Required General Education Courses:		7
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory	4
COMM 1101	Fundamentals of Oral Communication ²	3
Minimum Total Credits		33

¹ **Students continuing to the AAS are advised to take the following curriculum as part of the ITC:**

- Electrical Engineering Technology -- ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142
- Instrumentation Engineering Technology -- ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0110, ESET 0110L, ESET 0141, ESET 0142
- Mechanical Engineering Technology -- ESET 0121, ESET 0121L, ESET 0122, ESET 0122L, ESET 0123, ESET 0123L, ESET 0125, ESET 0126, ESET 0127, ESET 0127L, ESET 0140
- Nuclear Engineering Technology -- ESET 0121, ESET 0121L, ESET 0122, ESET 0122L, ESET 0140, ESET 0151, ESET 0151L, ESET 0152, ESET 0153

² Contributes to a General Education requirement.

Intermediate Technical Certificate: Energy Systems Renewable Energy Technology

(1 Year)

Applications for this program are not currently being accepted.

Objective:

Graduates will be able to: (1) solve technical problems typical of those encountered in the energy systems renewable energy technology discipline by using critical thinking skills, current technology, and principles of mathematics and applied science; (2) work and communicate effectively in multidisciplinary teams in both industrial and academic settings; and (3) understand current professional issues and the need to pursue lifelong learning.

Required Courses:

Students must register concurrently for the lab course associated with each theory course.

Code	Title	Credits
ESET 0101	Electrical Circuits I	5
ESET 0101L	Electrical Circuits I Laboratory	5

ESET 0122	Electrical Systems and Motor Control Theory	3
ESET 0122L	Electrical Systems and Motor Control Theory Laboratory	1
ESET 0150	Introduction to Wind Energy Systems	2
ESET 0150L	Introduction to Wind Energy Systems Laboratory	1
ESET 0160	Introduction to Renewable Energy	4
ESET 0160L	Introduction to Renewable Energy Lab	2
ESET 0161	Applications of Physics and Earth Science	3
ESET 0162	Industrial Health and Safety	2
ESET 0243	Hydraulic and Pneumatic Power	2
ESET 0243L	Hydraulic and Pneumatic Power Laboratory	2
ESET 0246	Materials and Metallurgy	2
Total Credits		34

Basic Technical Certificate: Instrumentation and Automation Assistant

(1 Year)

Objective:

To prepare students as entry-level technician and maintenance assistants to meet the needs of the electrical and process industry.

Employers include food processing, mining, semiconductor, chemical, paper, steel, petroleum, utilities and manufacturing industries. Graduates will have theoretical knowledge and hands-on experience setting up and calibrating electronic devices that measure and control temperature, level, flow, pressure, motion, force, humidity and acidity.

Graduates will be able to troubleshoot single and three phase motor controls, basic variable frequency drives, programmable logic controllers, sensors, relays, timers, solenoids, and other automation devices.

Code	Title	Credits
Required Courses:		
ESET 0103	Introduction to Electronics Theory	1
ESET 0103L	Introduction to Electronics Lab	1
ESET 0104	DC Electronics Principles Theory	2
ESET 0104L	DC Electronics Principles Lab	2
ESET 0105	AC Electronics Principles Theory	4
ESET 0105L	AC Electronics Principles Lab	2

INST 0140	Introduction to Motors and Motor Control Theory	2
INST 0220	Introduction to Programmable Logic Controllers	3
INST 0240	Theory	2
INST 0242	Theory	2
INST 0251	Laboratory	1
INST 0253	Laboratory	1
INST 0254	Laboratory	1
Total Credits		24

Health Information Technology

(1.5 to 2 Years)

Program Description	Type	Degree
Medical Coding, I.T.C. (p. 455)	Certificate	
Health Information Technology, A.A.S. (p. 455)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.

Objectives

This program will provide students with the skills and knowledge to:

1. Maintain components of health information systems consistent with the medical, legal, accreditation, and regulatory requirements of the health care delivery system.
2. Maintain, compile, and report health information data for reimbursement, facility planning, marketing, risk management, utilization management, quality assessment, and research as well as to abstract and code clinical data using appropriate classification systems.
3. Analyze health records according to federal, state, and accrediting body standards.

Career Opportunities

The HIT graduate may be employed in any organization that uses patient data or health information.

Career Opportunities:

- Hospitals
- Office-based physician practices
- Same Day Surgery Centers
- Health Information Software vendors
- Law and Insurance Firms
- Pharmaceutical Companies
- Nursing homes
- Home health agencies
- Mental health facilities
- Public health agencies

Accreditation

The program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) (<http://www.cahiim.org>) in conjunction with the American Health Information Management Association's Council on Accreditation. Graduates of the programs are eligible to write the national certification exam for the Registered Health Information Technician (RHIT).

This program is a Healthcare Information and Management Systems Society (HIMSS) Academic Organizational Affiliate

Program Information

- AAS Health Information Technology program accepts students in August for the full cohort group and by exception in January.
- ITC Medical Coding program accepts students in January for the full cohort group and by exception in August.
- Practicum/externship placements may require working outside of the local area during completion of 180 practicum hours during the last semester of the AAS.
- Practicum/externship placements for the medical coding certificate require completion of practicum hours during the last semester of the certificate.
- AAS and ITC students must pass a background check.

General Education requirements and all other courses in the program must be completed with a "C" or higher. Students who fail to meet grade requirements will be dismissed from their programs. Students who are dismissed may petition to return the following year; however, re-entry is not guaranteed but dependent on the approval of the petition and availability of a seat in that year's cohort. Additional information is available in the program's student handbook:

<https://www.isu.edu/media/libraries/college-of-technology/pdfs/handbooks/Health-Information-2018-2019.pdf>

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/healthinformation/>.

Faculty (p. 454)

HIT Courses (p. 582)

Health Information Technology Faculty

Coordinator and Clinical Senior Instructor

Young, Glenna, Coordinator, Clinical Senior Instructor, Health Information Technology. A.S. 1986, Boise State University; B.S. 2008, Idaho State University. (1995)

Clinical Coordinator and Clinical Senior Instructor

Lowry, Wade E., Clinical Coordinator, Clinical Senior Instructor, Health Information Technology. A.A.S. 1994, A.A.S. 2006, Community College of the Air Force; A.A.S. 1998, Idaho State University; Registered Health Information

Technician Certificate 1998, American Health Information Management Association. (2005)

Instructors

Doan, Mona P., Instructor, Health Information Technology. A.S. 2006, B.B.A. 2007, Boise State University. (2017)

Ward, Rhonda, Instructor, Health Information Technology. A.A.S. 2009, Idaho State University. (2017)

Associate of Applied Science: Health Information Technology

(2 Years)

All required courses must be completed with a grade of "C" or better.

Code	Title	Credits
Required Courses:		
HO 0106	Medical Terminology	2
HO 0107	Medical Law and Ethics	3
HO 0111	Introduction to Anatomy and Physiology	4
OR		
BIOL 3301 & 3301L & BIOL 3302 & BIOL 3302L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab and Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	
HO 0208 or BIOL 3305	Introduction to Pathology Introduction to Pathobiology	3
HO 0209	Principles of Drugs and Their Uses	3
HIT 0201	Supervised Professional Practice I	2
HIT 0202	Health Information I	4
HIT 0203	Health Statistics and Quality Improvement	3
HIT 0204	Health Information II	4

HIT 0205	ICD 10 CM Coding	3
HIT 0206	ICD 10 PCS Coding	3
HIT 0207	Supervised Professional Practice II	4
HIT 0209	CPT Coding	3
HIT 0213	Advanced Coding and Reimbursement	4
HIT 0215	Introduction to Reimbursement	2
HIT 0220	Informatics Technology I	3
HIT 0224	Informatics Technology II	3
General Education courses ¹		
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I ² Writing and Rhetoric I Plus	3
MATH 1123 or MATH 1153	Math in Modern Society ² Statistical Reasoning	3
BIOL 1101 & 1101L or BIOL 1100 & 1100L	Biology I and Biology I Lab ² Concepts of Biology and Concepts of Biology Lab	4
PSYC 1101	Introduction to Psychology ²	3
Additional General Education courses		3
Total Credits		69

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Intermediate Technical Certificate: Medical Coding

(1.5 Years)

Code	Title	Credits
Required Courses:		
HO 0106	Medical Terminology	2
HO 0107	Medical Law and Ethics	3
HO 0111	Introduction to Anatomy and Physiology	4
HO 0208	Introduction to Pathology	3
HO 0209	Principles of Drugs and Their Uses	3
HIT 0202	Health Information I	4
HIT 0205	ICD 10 CM Coding	3
HIT 0206	ICD 10 PCS Coding	3
HIT 0209	CPT Coding	3
HIT 0213	Advanced Coding and Reimbursement	4
HIT 0215	Introduction to Reimbursement	2
HIT 0240	Medical Coding Practicum	4
Total Credits		38

Health Occupations Department

Program Description	Type	Degree
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.

- Respiratory Therapy (p. 480)
- Veteran to Nurse Program (p. 476)

This department offers programs to prepare students for a variety of health occupations. The programs offer certificates, Associate of Applied Science, and Associate of Science degrees.

Overview

The Health Occupations Department administers programs leading to certificates and degrees in health fields. Included are the following:

- Associate Degree Registered Nursing (p. 415)
- Health Information Technology (p. 454)
- Massage Therapy (p. 463)
- Medical Assisting (p. 465)
- Medical Coding (p. 454)
- Occupational Therapy Assistant (p. 467)
- Pharmacy Technician (p. 472)
- Physical Therapist Assistant (p. 474)
- Practical Nursing (p. 476)

Bachelor's Degree Options

In each program that offers an Associate of Applied Science, the student may also elect to work towards either a Bachelor of Applied Science (p. 64) or a Bachelor of Science in Health Science (BSHS) degree with a Health Occupations Concentration (p.). In programs that lead to an Associate of Science, the student may also elect to work towards a BSHS degree with a Health Occupations Concentration. Students should consult with their program advisors about which university general education courses can be used to fulfill requirements for both the associate degrees and the BSHS degree.

Faculty (p. 456)

HO Courses (p. 583)

Health Occupations Department Faculty

Department Chair

Peterson, Paul P., Department Chair, Health Occupations. B.A. 1972, M.S. 1976, University of Maine; Ph.D. 1978, Brigham Young University. (2008)

Director of Rehabilitation Programs, Coordinator, and Clinical Assistant Professor

Jernigan, Darin J., Director of Rehabilitation Programs; Coordinator, Clinical Assistant Professor, Physical Therapist Assistant. B.S. 1988, Idaho State University; M.S. 1991, University of the Pacific; D.P.T. 2011, Idaho State University. (2002)

Director of Allied Health Programs and Clinical Associate Professor

Blakeman, David, Director of Allied Health Programs; Clinical Associate Professor, Respiratory Therapy. A.S. 1994, Lassen College; A.S. 1997, Butte College; B.S. 2008, M.T.D. 2012, Idaho State University. (2009)

Director of Nursing Programs and Clinical Assistant Professor

Brumfield, Jennie L., Director of Nursing Programs; Clinical Assistant Professor, Associate Degree Registered Nurse. B.S. 2008, Idaho State University; M.S. 2015, Gonzaga University. (2011)

Clinical Assistant Professor

Flint, David T., Health Occupations Education Specialist, Clinical Assistant Professor, Health Occupations. B.S. 1986, M.Ed. 1997, A.A.S. 2005, Idaho State University. (2006)

Instructor

Smith, David M., Instructor, Physical Therapy Assistant. A.A.S. 2007, B.S. 2008, Idaho State University; M.S. 2015, University of Utah. (2016)

B.S. Health Science with a concentration in Health Occupations

Program Admissions Requirements

Students must be a graduate of or be enrolled in a health occupations program that awards an associates degree. (Out-of-state associate degrees must be evaluated for meeting the Idaho State Board of Education standards. If the associate degree is over five years old, the degree must be evaluated for currency in the technical field.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1153		3
Objective 4		6
Objective 5 - Biology and Chemistry requirements in core and concentration fulfill this objective.		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		37

Core Requirements

Code	Title	Credits
Choose one of the following:		4
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab (Partially fulfills Objective 5)	
or		
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
(BIOL 3301 has a prerequisite of BIOL 1101 or BIOL 2227, either of which will partially fulfill Objective 5.)		
DHS 4426	Evidence Based Research in Health Sciences	3
HE 2200	Promoting Wellness	3
Choose one of the following:		2-3
HE/HCA 2210	Medical Terminology and Communication	
HO 0106	Medical Terminology	
Professional Competencies - Choose one of the following:		3
HCA 2215	Healthcare Leadership	
HCA 4475	Health Law and Bioethics	
HO 0107	Medical Law and Ethics	

PHIL 2230	Medical Ethics	
Healthcare Competencies		3
ECON 4440	Economics of Health Care	
HCA 1115	US Health System	
HCA 3340	Healthcare Policy	
Communication Competencies		3
ANTH 4409	Clinical Medical Anthropology	
CMP 3308	Groups and Communication	
CMP 4422	Conflict Management	
COUN 3300	Interpersonal Skills in Health Professions	
ENGL 3307	Professional and Technical Writing	
HE 4410	Health Behavior Change Theory and Application	
HE 4425	Patient Education Skills	
Diversity Competencies		2-3
ANTH 4407	Anthropology of Global Health	
ANTH 4409	Clinical Medical Anthropology	
COUN 3300	Interpersonal Skills in Health Professions	
HCA 4475	Health Law and Bioethics	
HE 4425	Patient Education Skills	
Students must have an overall 2.0 Grade Point Average (GPA) in BS Health Science Core courses with no grades below a C-.		
Total Credits		23-25

Concentration Requirements

Code	Title	Credits
BIOL 3302	Advanced Human Anatomy and Physiology 2	3
MATH 1153	Statistical Reasoning	3
Choose one of the following sequences:		7-9
CHEM 1101 & CHEM 1102 & CHEM 1103	Introduction to Chemistry and Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Laboratory	
CHEM 1111 & 1111L & CHEM 1112 & CHEM 1112L	General Chemistry I and General Chemistry I Lab and General Chemistry II and General Chemistry II Lab	
Choose one of the following:		4-8
PHYS 1100	Essentials of Physics	
PHYS 1111 & PHYS 1113 & PHYS 1112 & PHYS 1114	General Physics I and General Physics I Laboratory and General Physics II and General Physics II Laboratory	
Choose one of the following:		
BIOL 3305	Introduction to Pathobiology	

HE 3383	Epidemiology	
RESP 2214	Introduction to Pulmonary Disease	
Choose one of the following:		2-3
NTD 3340	Nutrition for Health Professionals	
PE 3300	Movement Theory and Motor Development	
PE 3370	Care and Prevention of Athletic Injuries	
PSYC 3301	Abnormal Psychology	
PSYC 3341	Social Psychology	
SOC 3330	Sociology of Health and Illness	
Students must complete all Health Occupation Concentration courses with a grade of "C" or higher.		
Total Credits		19-26

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Core Requirements (w/o General Education)	19-21
	Concentration Requirements (w/o General Education)	15-18
	Upper Division Free Electives	31
	Free Electives	18-13
Total Credits		120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degreerequirements>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>)

Information Technology Systems

(1 to 2 1/2 Years)

Program Description	Type	Degree
Computer Network Technician, B.T.C. (p. 460)	Certificate	
Computer Network Technician, A.T.C. (p. 460)	Certificate	
Information Technology Systems, A.A.S. (p. 460)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

1. To develop entry-level skills in setup, servicing, maintaining, and troubleshooting of computer systems/networks.
2. To develop entry-level skills in server installation, configuration, and administration.
3. To develop entry-level collaboration, business acumen, critical thinking, problem-solving, and troubleshooting skills.
4. To develop an awareness and fundamental knowledge of security concerns and procedures related to computing and networking.

Program Information

Courses listed will be taught in sequential blocks of instruction. Successful completion of a course is required before the student can progress in the program. If the student fails any math, theory, or lab course, then that course must be repeated and a passing grade of C- or better obtained before the student can advance in the program. However, a C- could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7). A student must have a 2.0 GPA in the program's required curriculum in order to be eligible for a certificate or degree.

Upon completion of the Associate of Applied Science degree, a Bachelor of Applied Science degree is available to a student with the completion of formally approved academic courses.

For a Program Information Packet, go to the URL <https://www.isu.edu/informationtechnologysystems/>, which leads to a description of the program in general, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses.

Each course must be completed with a C- or better before the student can progress in the program.

Faculty (p. 459)

ITS Courses (p. 591)

Information Technology Systems Faculty

Coordinator and Clinical Senior Instructor

Hill, Weldon B., Coordinator, Clinical Senior Instructor, Information Technology Systems. A.A.S. 1992, B.S. 2013, Idaho State University. (1998)

Instructor

Baker, John E., Instructor, Information Technology Systems. Technical Certificate 1975, City and Guilds of London Institute; Certificate of Apprenticeship 1977, Ministry of Defense (United Kingdom). (2015)

Associate of Applied Science: Information Technology Systems

(2 Years)

Code	Title	Credits
Required Courses:		
ITS 0100	Computer Essentials	4
ITS 0110	Cisco Certified Network Associate 1	4
ITS 0120	Introduction to Linux	3
ITS 0135	Windows Desktop Operating Systems	3
ITS 0150	Networking I	4
ITS 0165	Cybersecurity	3
ITS 0180	Network Operating Systems	3
ITS 0205	Information Technology Internship	7
ITS 0215	Networking II	3
ITS 0218	PowerShell Scripting	3
ITS 0220	Networking III	3
ITS 0230	Wireless Technologies	3
ITS 0240	Securing the LAN	4
TGE 0158	Employment Strategies	2
TGE 1150	Applied Social Sciences in the Workplace ¹	3
General Education courses ²		
COMM 1101	Fundamentals of Oral Communication ¹	3
Additional General Education courses		12
Total Credits		67

¹ Contributes to a General Education requirement.² See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Advanced Technical Certificate: Computer Network Technician

(2 Years)

Code	Title	Credits
Required Courses:		
ITS 0100	Computer Essentials	4
ITS 0110	Cisco Certified Network Associate 1	4
ITS 0120	Introduction to Linux	3
ITS 0135	Windows Desktop Operating Systems	3
ITS 0150	Networking I	4
ITS 0165	Cybersecurity	3
ITS 0180	Network Operating Systems	3
ITS 0205	Information Technology Internship	7
ITS 0215	Networking II	3
ITS 0218	PowerShell Scripting	3
ITS 0220	Networking III	3
ITS 0230	Wireless Technologies	3
ITS 0240	Securing the LAN	4
TGE 0158	Employment Strategies	2
TGE 1150	Applied Social Sciences in the Workplace ¹	3
ENGL 1101	Writing and Rhetoric I ¹	3
or ENGL 1101P	Writing and Rhetoric I Plus	
Total Credits		55

¹ Contributes to a General Education requirement.

Basic Technical Certificate: Computer Network Technician

(1 Year)

Code	Title	Credits
Required Courses:		
ITS 0100	Computer Essentials	4
ITS 0110	Cisco Certified Network Associate 1	4
ITS 0120	Introduction to Linux	3
ITS 0135	Windows Desktop Operating Systems	3
ITS 0150	Networking I	4
ITS 0165	Cybersecurity	3
ITS 0180	Network Operating Systems	3
TGE 0158	Employment Strategies	2
TGE 1150	Applied Social Sciences in the Workplace ¹	3
Total Credits		29

¹ Contributes to a General Education requirement.

Law Enforcement

(1/2 to 2 Years)

Program Description	Type	Degree
Law Enforcement, B.T.C. (p. 462)	Certificate	
Law Enforcement, I.T.C. (p. 462)	Certificate	
Law Enforcement, A.A.S. (p. 462)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objective

To provide the knowledge and technical skills for eligibility to become certified peace officers as set forth by the standards of the Idaho Peace Officers Standards and Training Council for the State of Idaho.

Program Information

The Law Enforcement training program is an Idaho law enforcement academy (police academy) that provides classroom knowledge and practical skills preparing graduates to enter the general field of law enforcement.

The Law Enforcement program is approved by the Idaho Police Officers Standards and Training (POST) Council, thus eliminating the graduates' need to attend other training before taking the certification exam. Because the Law - Enforcement program is driven by POST standards for certification in the law enforcement field, applicants to the program must meet POST standards for admission. These admission standards include a polygraph and a background check into the applicants' criminal, driving, and psychological record.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/lawenforcement/>.

All Law Enforcement courses must be completed with a minimum grade of "C-" to continue in the program.

Admission Requirements

Prerequisites for Entry into Program:

1. Must pass a polygraph exam.
2. Must pass a background and driver's license check.
3. Must pass an FBI fingerprint check.
4. Must pass a physical agility test.
5. Must pass a medical physical exam with checks for fitness, vision, and hearing.
6. Must apply for Fall Semester by August 1st deadline.
7. Must apply for Spring Semester by December 15th deadline.

Physical Agility

Students must pass a physical agility test to be accepted into the program. This test includes running, push-ups, sit-ups, and jumping.

Faculty (p. 461)

LAW Courses (p. 594)

Law Enforcement Faculty

Coordinator and Instructor

Case, Lynn, Coordinator, Instructor, Law Enforcement. A.S. 1984, Boise State University. (2018)

Emeritus

Edwards, Cal, Master Instructor, Law Enforcement. 1998-2018

Associate of Applied Science: Law Enforcement

(2 Years)

All Law Enforcement courses must be completed with a minimum grade of "C-" to continue in the program.

Code	Title	Credits
Required Courses:		
LAWE 0101	Law Enforcement I	7
LAWE 0102	Law Enforcement 2	7
LAWE 0103	Law Enforcement 3	8
LAWE 0104	Detention Procedures	4
BT 0170	Computer Literacy and Business Software	3
or		
INFO 1101	Digital Information Literacy ¹	
POLS 2248	Politics and the Administration of Justice	3

POLS 2249	Introduction to Criminal Law	3
PSYC 2200	Child Abuse	3
SOC 2231	Juvenile Delinquency	3

General Education courses ²

COMM 1101	Fundamentals of Oral Communication ¹	3
SOC 1101	Introduction to Sociology ¹	3
SPAN 1101	Elementary Spanish I ¹	4
SPAN 1102	Elementary Spanish II ¹	4
Additional General Education courses		6

Total Credits		61
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¹ Contributes to a General Education requirement.

² See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Intermediate Technical Certificate: Law Enforcement

(1 Year)

All courses must be completed with a minimum grade of "C-" to continue in the program.

Code	Title	Credits
Required Courses:		
LAWE 0101	Law Enforcement I	7
LAWE 0102	Law Enforcement 2	7
LAWE 0103	Law Enforcement 3	8

LAWE 0104	Detention Procedures	4
COMM 1101	Fundamentals of Oral Communication ¹	3
or ENGL 1101	Writing and Rhetoric I	
SOC 1101	Introduction to Sociology ¹	3
Total Credits		32

¹ COMM 1101, ENGL 1101, and SOC 1101 contribute to General Education requirements.

Basic Technical Certificate: Law Enforcement

1/2 Year

Code	Title	Credits
Required Courses:		
LAWE 0101	Law Enforcement I	7
LAWE 0102	Law Enforcement 2	7
LAWE 0103	Law Enforcement 3	8
Total Credits		22

Massage Therapy

(1.5 to 2 Years)

Program Description	Type	Degree
Massage Therapy, I.T.C. (p. 464)	Certificate	
Massage Therapy, A.A.S. (p. 464)	Degree	A.A.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Overview

The Massage Therapy Program provides classroom and laboratory experiences as well as onsite massage lab (Massage Therapy Public Clinic). We prepare graduates to sit for the Federation of State Massage Licensing Boards' Massage & Bodywork Licensing Exam (MBLEx), which allows students to apply for the State of Idaho Massage License through the Massage Therapy Board, Idaho Bureau of Occupational Licenses. A graduate will also be prepared for exams to obtain a voluntary certification through the National Board for Therapeutic Massage and Bodywork to become "Board Certified in Therapeutic Massage and Bodywork."

Program Information

Program information including descriptions of Intermediate Technical Certificate, one Associate of Applied Science degree, course sequence descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, handbook, and other expenses, can be found online at <https://www.isu.edu/massagetherapy/>.

Each course must be completed with a C- or better before the student can progress in the program. The program has 1 instructor for every 16 students. The Intermediate Technical Certificate curriculum represents 748 hours of educational training and can be completed in 3 semesters (1.5 years). The Associate of Applied Science curriculum represents 1153 hours of educational training and can be completed in 4 semesters (2 years).

Accreditation

The Massage Therapy Program is accredited by the Commission on Massage Therapy Accreditation (COMTA), 2101 Wilson Blvd., Ste. 302, Arlington, VA 22201, phone 202-888-6790, fax 202-888-6787, <https://comta.org>.

The National Certification Board for Therapeutic Massage & Bodywork has recognized the Massage Program; the assigned school number is 490404-08, <https://www.ncbtmb.org>.

The Washington State Board of Massage has approved Idaho State University's Intermediate Technical Certificate and Associate of Applied Science degree as board-approved massage programs for licensure in the State of Washington (Washington State Board of Health, Board of Massage Approval Number 0395).

Faculty (p. 463)

MSTH Courses (p. 597)

Massage Therapy Faculty

Coordinator and Clinical Senior Instructor

Beck, Susan, Coordinator, Clinical Senior Instructor, Massage Therapy. B.S. 1976, Colorado State University; M.T.D. 2014, Idaho State University. (2006)

Instructor

Harris, Dean C., Instructor, Massage Therapy. B.A. 1975, Idaho State University. (2016)

Associate of Applied Science: Massage Therapy

(2 Years)
(1153 clock hours)

Code	Title	Credits
Prerequisite Courses:		
(Prerequisite courses must be completed prior to acceptance into the program.)		
MSTH 0100	Massage Therapy Career Exploration	2
HO 0111	Introduction to Anatomy and Physiology ¹	4
Required Courses:		
HO 0106	Medical Terminology	2
HO 0208	Introduction to Pathology	3
MSTH 0104	Introduction to Kinesiology	3
MSTH 0105	Principles of Therapeutic Massage	2
MSTH 0107	Professional Massage Techniques	6
MSTH 0121A	Massage Therapy Lab I	1
MSTH 0121B	Massage Therapy Lab II	3
MSTH 0140	Clinical Techniques and Assessment	4
MSTH 0160	Advanced Therapeutic Massage Techniques	4
MSTH 0205	Case Report Research Project	2

MSTH 0210	Business Skills for Massage Therapy	2
Select 4 credits from the following courses:		4
MSTH 0170	Spa Techniques (2 cr.)	
MSTH 0203	Asian Bodywork Theory and Techniques (2 cr.)	
MSTH 0230	Sports Massage (2 cr.)	
Select 3 credits from the following courses:		3
BT 0120	Basic Accounting (3 cr.)	
BT 0144	Business Document Processing (3 cr.)	
BT 0170	Computer Literacy and Business Software (3 cr.)	
BT 0171	Computerized Accounting (3 cr.)	
HO 0107	Medical Law and Ethics (3 cr.)	
General Education courses ²		15
Total Credits		60

¹ Other anatomy and physiology sequences may also be accepted. Please see your advisor for more information.

² See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Intermediate Technical Certificate: Massage Therapy

(1.5 Years)
(748 clock hours)

Code	Title	Credits
Prerequisite Courses:		
(Prerequisite courses must be completed prior to acceptance into the program.)		
MSTH 0100	Massage Therapy Career Exploration	2
HO 0111	Introduction to Anatomy and Physiology ¹	4
Required Courses:		
HO 0106	Medical Terminology	2
HO 0208	Introduction to Pathology	3
MSTH 0104	Introduction to Kinesiology	3
MSTH 0105	Principles of Therapeutic Massage	2
MSTH 0107	Professional Massage Techniques	6
MSTH 0121A	Massage Therapy Lab I	1
MSTH 0121B	Massage Therapy Lab II	3
MSTH 0140	Clinical Techniques and Assessment	4
MSTH 0160	Advanced Therapeutic Massage Techniques	4
MSTH 0210	Business Skills for Massage Therapy	2
Total Credits		36

¹ Other anatomy and physiology sequences may also be accepted. Please see your advisor for more information.

Medical Assisting

(2.5 Years)

Program Description	Type	Degree
Medical Assisting, A.A.S. (p. 466)	Degree	A.A.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

1361 Park St
Clearwater, FL 33756
(727) 210-2350
Fax: (727) 210-2354

NOTE: Graduates will be eligible to take the national certification exam for the Certified Medical Assistant (CMA). Individuals who have been found guilty of a felony, or pleaded guilty to a felony, are not eligible to take the CMA Exam. However, the Certifying Board may grant a waiver based upon mitigating circumstances.

Objectives

This program will provide students with the skills and knowledge to:

1. Help physicians examine and treat patients by taking and recording vital signs and medical histories, explain treatment procedures to patients, prepare patients for exams, assist during the exams and other office procedures, collect blood and other specimens, and perform basic lab procedures.
2. Perform routine tasks to keep offices running smoothly such as schedule appointments, process insurance claims, perform bookkeeping, and maintain electronic medical records to name a few.

Accreditation

The Idaho State University College of Technology Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Educational Programs (CAAHEP, www.caahep.org (<http://www.caahep.org>)), upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). The program's accreditation status is current until September, 2016.

Commission on Accreditation of Allied Health Education Programs

Program Information

The MA Curriculum is sequenced to provide the student with the best possible learning experience. Students who do not complete proper class sequence each semester will not progress to the next semester. All Medical Assisting courses (i.e., HO, HIT, and MA) must be completed with a "B-" or better. Other required courses, including general education requirements, must be completed with a "C" or better.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/medicalassisting/>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Faculty (p. 465)

MA Courses (p. 602)

Medical Assisting Faculty

Coordinator and Clinical Assistant Professor

Terrell, Robin K., Coordinator, Clinical Assistant Professor, Medical Assisting. A.A.S. 2006, B.S. 2014, Idaho State University. (2011)

Clinical Assistant Professor

Carter, Susan, Clinical Assistant Professor, Medical Assisting. A.A.S. 2007, B.S. 2014, Idaho State University. (2014)

Associate of Applied Science: Medical Assisting

(2.5 Years)

All Medical Assisting courses (i.e., HO, HIT, and MA) must be completed with a "B-" or better. Other required courses, including general education requirements, must be completed with a "C" or better.

Code	Title	Credits
Required Courses:		
HIT 0205	ICD 10 CM Coding	3
HIT 0209	CPT Coding	3
HO 0106	Medical Terminology	2
HO 0107	Medical Law and Ethics	3
HO 0208	Introduction to Pathology	3
HO 0209	Principles of Drugs and Their Uses	3
MA 0104	Introduction to Medical Assisting Administrative	4
MA 0200	Clinical Medical Assisting I	4
MA 0202	Administration of Medications and Phlebotomy	4
MA 0203	Computers in Medical Assisting Administrative	6
MA 0204	Clinical Externship	6
MA 0204S	Clinical Externship Seminar	1
MA 0205	Clinical Medical Assisting II	4
MA 0206	Administrative Externship	2
MA 0206S	Externship Seminar	1
MA 0207	Professional Development	1
MA 0208	Clinical Medical Assisting III	4
Choose one of the following:		4-8
HO 0111	Introduction to Anatomy and Physiology	
OR		
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	
or BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
AND		
BIOL 2228 & 2228L	Human Anatomy and Physiology 2 and Human Anatomy and Physiology 2 Lab	
or BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	
General Education courses: ¹		
BIOL 1100 & 1100L	Concepts of Biology and Concepts of Biology Lab ²	4
OR		
BIOL 1101 & 1101L	Biology I and Biology I Lab ²	
PSYC 1101	Introduction to Psychology ²	3
General Education Objective 3		3

Additional General Education courses

6

Total Credits

74-78

- ¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.
- ² Contributes to a General Education requirement.

Occupational Therapy Assistant

(2 Years)

Program Description	Type	Degree
Occupational Therapy Assistant, A.A.S. (p. 469)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.

Overview

The Occupational Therapy Assistant program is an associate of applied science program preparing students for licensure to practice as Occupational Therapy Assistants.

Occupational therapy is a profession that uses occupation to promote well-being and health among people of all ages and abilities. Occupations are goal-directed, meaningful pursuits that occupy a person's time each day. Occupations include work and productive activities, self-care or care of others, and leisure/recreational activities. Occupational therapists adapt the environment, tasks, or techniques to meet individual needs while helping each client develop new skills necessary to function productively. Occupational Therapy Assistants view every aspect of a client's life as important to his/her health.

Occupational therapy seeks to improve the quality of life for individuals who are at risk for physical, cognitive, mental, or psychosocial impairments. Demand for occupational therapy assistants will increase to address the needs of a growing population of aging adults, children with developmental disabilities and those who struggle with traumatic injuries and illness. Working under the direction of an occupational therapist, the occupational therapy assistant helps individuals experiencing physical or mental illness or injury return to valued occupations.

The curative nature of occupational therapy is extremely broad and requires individuals with an interest in the complexity of humanity and occupations. One also needs an ability to think critically and creatively and be able to address occupational performance problems resulting from disease, trauma, and mental illness. To be well prepared, a student must enter the profession with a foundation in the liberal arts, biological, physical, and social sciences.

For information on entrance requirements and to obtain an information packet along with course descriptions, sequence, and financial information go to <https://www.isu.edu/ota/>.

Accreditation

The occupational therapy assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE's telephone number is

(301) 652-AOTA, and its Web address is <https://www.aota.org/Education-Careers/Accreditation.aspx>. Graduates of the program will be eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). In addition, all states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. **Note that a felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.**

For details on OTA program accreditation please visit the ACOTE website (<http://www.aota.org/Education-Careers/Accreditation.aspx>).

Program Detail

- New cohorts start in August.
- Requires 2 years to complete (Year 1 - Fall, Spring; Year 2 - Fall, Spring).
- Divided into three components: seated didactic instruction, laboratory demonstrations and practice, and practicum/internship placements.
- Practicum/internship placements may require working evening or weekend hours, and outside of the local area.
- Program requires the successful completion of 69-73 credit hours including prerequisites.
- Each course must be completed with a C or better before the student can progress in the program.

Degree Options

- Associate of Applied Science (AAS)
- Bachelor of Applied Science (BAS)
- Bachelor of Science in Health Science (BS)

Career Opportunities

- School Districts
- Out-Patient Rehabilitation Clinics
- Home Health Agencies
- Skilled Nursing Facilities
- Hospitals
- Psychiatric Settings

Faculty (p. 467)

OTA Courses (p. 614)

Occupational Therapy Assistant Faculty

Coordinator and Instructor

Trammel, Joanne, Coordinator, Instructor, Occupational Therapy Assistant. B.S. 1984, University of North Carolina at Greensboro; M.S. 1991, University of North Carolina at Chapel Hill. (2016)

Academic Fieldwork Coordinator and Instructor

Peterson, Brittany, Academic Field Work Coordinator, Instructor, Occupational Therapy Assistant. B.A. 2007, M.A. 2008, The College of St. Scholastica. (2018)

Instructor

Delgado, Katherine A., Instructor, Occupational Therapy Assistant. A.A.S.
2012, Lone Star College. (2017)

Associate of Applied Science: Occupational Therapy Assistant

(2 Years)

Code	Title	Credits
Program Prerequisites		
1. High School Diploma or GED;		
2. Students must be qualified for college-level coursework in English and Math (See an advisor for details.);		
3. Completion of criminal background check and drug screening; and		
4. Completion of the following courses with a grade of C or better:		
HO 0106	Medical Terminology	2
BIOL 1100 & 1100L	Concepts of Biology and Concepts of Biology Lab	4
or BIOL 1101 & 1101L	Biology I and Biology I Lab	
PSYC 1101	Introduction to Psychology	3
Program Requirements		
OTA 0102	Foundations of Occupational Therapy	2
OTA 0107	Therapeutic Activities	3
OTA 0110	Theory and Treatment of Psychosocial Dysfunction	4
OTA 0115	Level I Fieldwork Placement I	1
OTA 0117	Neurological Theory and Treatment	4
OTA 0121	Level I Fieldwork Placement 2	1
OTA 0124	Human Movement for Occupation	3
OTA 0210	Theory and Treatment of Physical Dysfunction	4
OTA 0211	Professional Transitions	2
OTA 0212	Occupational Therapy Practice Management	2
OTA 0216	Pediatric Theory and Treatment	4
OTA 0221	Level II Fieldwork Placement 1	7
OTA 0222	Level II Fieldwork Placement 2	7
COMM 1101	Fundamentals of Oral Communication ¹	3
ENGL 1101	Writing and Rhetoric I	3-4
or ENGL 1101P	Writing and Rhetoric I Plus	
HO 0111	Introduction to Anatomy and Physiology	4-8
or BIOL 3301 & 3301L & BIOL 3302 & BIOL 3302L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab and Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	
PSYC 3301	Abnormal Psychology	3
Any Objective 3 course		3-4
Total Credits		69-75

¹ Contributes to a General Education requirement.

Paralegal Studies

(2 Years)

Program Description	Type	Degree
Paralegal Studies, A.A.S. (p. 471)	Degree	A.A.S.
Paralegal Studies, B.A.S. (p. 406)	Degree	A.A.S.

Overview

This program will provide students with the skills and knowledge to work under the supervision of an attorney in all areas of the law including administrative, bankruptcy, civil litigation, corporate, criminal, domestic, employment, environmental, estate planning, health care, and real estate. Graduates will investigate, interview, research, organize, analyze, and draft case documents and materials, and generally assist attorneys in all phases of client representation.

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/paralegalstudies/>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook. A grade of "C" or better in all courses of a chosen option is required for graduation. If a "C" or better is not achieved in a required class, the student may repeat the class only one time.

Faculty (p. 470)

PARA Courses (p. 617)

Paralegal Studies Faculty

Coordinator and Instructor

Williams, Angela, Coordinator, Instructor, Paralegal Studies. B.S. 1999, Utah State University; J.D. 2005, University of Idaho. (2019)

Bachelor of Applied Science: Paralegal Studies

Students seeking this degree must complete the following BAS and university requirements:

Code	Title	Credits
CTE Credits from the AAS in Paralegal Studies		44
General Education Requirements		36
Upper Division Credits (see required courses listed below)		36
Total Credits Required (minimum)		120

Students must complete a minimum of eighteen hours of academic course work from the following courses:

Code	Title	Credits
POLS 4441	Administrative Law	3
POLS 4442	Constitutional Law	3
POLS 4443	Civil Rights and Liberties	3
POLS 4445	Jurisprudence	3
POLS/ANTH 4478	Federal Indian Law	3
POLS/ANTH 4479	Tribal Governments	3
SOC 3310	Introduction to Criminal Justice	3
SOC 4431	Criminology	3

MGT 4461	Business Law	3
MGT 4480	Labor and Employment Law	3
POLS 3308	State and Local Government	3
POLS 4404	The Legislative Process	3
POLS 4444	Law and Society	3
POLS 4467	State and Local Administration	3
MGT 4483	Industrial Relations	3
CMP 3320	Foundations of Leadership	3
CMP 4422	Conflict Management	3

Students must select an additional 18 upper division credits with an assigned BAS advisor and obtain approval for their degree plan from the BAS Committee. 18

For information contact:

College of Technology
Student Services
RFC Building (Bldg #48)
(208) 282-3939
<https://www.isu.edu/tech/departments/student-services/>

Associate of Applied Science: Paralegal Studies

(2 Years)

Code	Title	Credits
Required Courses:		
BT 0170	Computer Literacy and Business Software	3
PARA 0110	Introduction to Paralegal Studies	3
PARA 0111	Ethics and Professionalism	3
PARA 0113	Contract Law	3
PARA 0116	Tort Law	3
PARA 0117	Criminal Law and Procedure	3
PARA 0119	Law Office Technology	2
PARA 0121	Law Office Management	2
PARA 0122	Legal Research Analysis and Writing I	3
PARA 0222	Legal Research Analysis and Writing II	3
PARA 0230	Paralegal Internship	4
PARA 0232	Civil Litigation and Procedure	3
Select three of the following for nine credits:		9
PARA 0112	Estates Wills and Trusts	
PARA 0114	Family Law	
PARA 0115	Property Law	
PARA 0118	Business Organizations	
PARA 0215	Debtor and Creditor Rights and Bankruptcy Law	
PARA 0223	Legal Research Analysis and Writing III	
PARA 0296	Independent Study	
General Education courses ¹		

COMM 1101	Fundamentals of Oral Communication ²	3
ENGL 1101	Writing and Rhetoric I	3
ENGL 1102	Writing and Rhetoric II ²	3
Additional General Education courses		9
Total Credits		62

¹ See General Education Requirements for A.A.S. Degree at the start of the College of Technology section of the catalog. *Paralegal Studies majors are required to take 9 credits of Communication, rather than 6, for a total of 18 credits of General Education courses.*

² Contributes to a General Education requirement.

Pharmacy Technology

(1 year)

Program Description	Type	Degree
Pharmacy Technology, B.T.C. (p. 473)	Certificate	
Pharmacy Technology, A.T.C. (p. 473)	Certificate	

Program Overview

The Pharmacy Technology program prepares graduates for positions working under the supervision of a licensed and registered pharmacist in retail and institutional settings. Students completing the program will have a basic understanding of human anatomy and physiology, medical terminology, pharmacy law and ethics, and the therapeutic classification and use of the top 200 prescription drugs. They will also become conversant with such activities as: the interpretation of prescriptions, ordering product preparation, stocking, inventory control, billing, and customer relations. The program provides both classroom and online instruction, laboratory demonstrations and skills practice, and two practicum placements in the community.

The Pharmacy Technology program accepts 12 to 14 students each fall semester. Students joining that cohort must hold a high school diploma or GED, and have already completed prerequisite coursework in the following areas: an overview of working in Health Care; keyboarding and basic computer skills; human anatomy and physiology, and math computations in allied health fields. A criminal background check and drug screening are also required.

Program Detail

- Accepts students in August
- Requires 1 year to complete (Fall semester, Spring semester, and Summer term)

- Divided into three components: seated and online instruction, laboratory demonstrations and practice, and practicum/ externship placements
- Practicum/ externship placements may require working evening or weekend hours
- Upon successful completion of the program, the student is prepared to sit for the Pharmacy Technician National Certification Exam
- Each course must be completed with a C or better before the student can progress in the program.

Degree Options

- Basic Technical Certificate
- Advanced Technical Certificate

Career Opportunities

- Retail or other ambulatory settings
- Hospital or other institutional settings

Faculty (p. 472)

PHTC Courses (p. 622)

Pharmacy Technology Faculty

Coordinator and Instructor

Usyak, Wesley, Coordinator, Instructor, Pharmacy Technology. B.B.A. 2010, M.Ed. 2012, American Intercontinental University. (2016)

Advanced Technical Certificate: Pharmacy Technology

(1 Year)

Code	Title	Credits
Program Prerequisites		
1. High School Diploma or GED;		
2. Students must be qualified for college-level coursework in English and Math (See an advisor for details.);		
3. Completion of a criminal background check; and		
4. Completion of the following courses with a grade of C or better:		
BT 0170	Computer Literacy and Business Software	3
HO 0106	Medical Terminology	2
Program Requirements		
1. Completion of a drug screening prior to or during the first fall semester of Pharmacy Technology (PHTC) classes; and		
2. Completion of the following courses with a grade of C or better:		
COMM 1101	Fundamentals of Oral Communication ¹	3
Choose one of the following:		3-4
ENGL 1101	Writing and Rhetoric I ¹	
or		
ENGL 1101P	Writing and Rhetoric I Plus ¹	
or		
ENGL 1102	Writing and Rhetoric II ¹	
Any Objective 3 course		3-4
HO 0110	Over the Counter and Herbal Medications	2

HO 0111	Introduction to Anatomy and Physiology	4
HO 0208	Introduction to Pathology	3
PHTC 0110	Pharmacy Law and Ethics	2
PHTC 0150	Introduction to Pharmacology	3
PHTC 0152	Advanced Pharmacology	3
PHTC 0161 & 0161L	Extemporaneous Compounding and IV Certification and Extemporaneous Compounding and IV Certification Lab	3
PHTC 0171 & 0171L	Applied Pharmacy Technology I and Applied Pharmacy Technology Lab I	3
PHTC 0172 & 0172L	Applied Pharmacy Technology II and Applied Pharmacy Technology II Lab	2
PHTC 0175	Pharmacy Technician Certification Exam Preparation	1
PHTC 0182	Pharmacy Technician Practicum and Seminar I	5
PHTC 0187	Pharmacy Technician Practicum and Seminar II	5
TGE 0158	Employment Strategies	2
Total Credits		52-54

¹ Contributes to a General Education requirement.

Basic Technical Certificate: Pharmacy Technology

(1 year)

Code	Title	Credits
Program Prerequisites		
1. High School Diploma or GED;		
2. Students must be qualified for college-level coursework in English and Math (See an advisor for details.); and		
3. Completion of a criminal background check.		
Program Requirements		
1. Completion of a drug screening prior to or during the first fall semester of Pharmacy Technology (PHTC) classes; and		
2. Completion of the following courses with a grade of C or better:		
HO 0106	Medical Terminology	2
HO 0110	Over the Counter and Herbal Medications	2
PHTC 0110	Pharmacy Law and Ethics	2
PHTC 0150	Introduction to Pharmacology	3
PHTC 0152	Advanced Pharmacology	3

PHTC 0161 & 0161L	Extemporaneous Compounding and IV Certification and Extemporaneous Compounding and IV Certification Lab	3
PHTC 0171 & 0171L	Applied Pharmacy Technology I and Applied Pharmacy Technology Lab I	3
PHTC 0172 & 0172L	Applied Pharmacy Technology II and Applied Pharmacy Technology II Lab	2
PHTC 0175	Pharmacy Technician Certification Exam Preparation	1
PHTC 0182	Pharmacy Technician Practicum and Seminar I	5
TGE 0158	Employment Strategies	2
Total Credits		28

Physical Therapist Assistant

(2 Years)

Program Description	Type	Degree
Physical Therapy Assistant, A.A.S. (p. 475)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.

Objectives

This program will provide students with the skills and knowledge to:

1. Be a member of the health care team that plans and implements a rehabilitative patient care program.
2. Under the supervision of a physical therapist, the PTA will carry out a treatment program that includes, but is not limited to, therapeutic activities to improve strength, endurance, coordination, balance, and range of motion.
3. Learn and then safely utilize modalities including: heat, cold, electricity, sound, water, or massage to relieve pain, promote the healing process, and stimulate muscle activity.
4. Instruct patients in safe functional mobility skills and therapeutic activities using assistive devices such as walkers, crutches, canes, and wheelchairs when appropriate.
5. Assist the physical therapist in performing tests and assessments, as well as observing and reporting patient responses to treatment.

The PTA graduate works with the Physical Therapist in performing rehabilitation interventions, patient assessments, as well as observing and reporting patient responses to treatment.

Physical Therapist Assistant Faculty

Director of Rehabilitation Programs, Coordinator, and Clinical Assistant Professor

Jernigan, Darin J., Director of Rehabilitation Programs; Coordinator, Clinical Assistant Professor, Physical Therapist Assistant. B.S. 1988, Idaho State University; M.S. 1991, University of the Pacific; D.P.T. 2011, Idaho State University. (2002)

Clinical Instructor

Lippiello, Angela, Clinical Instructor, Physical Therapist Assistant. B.S. 2000, A.A.S. 2003, Idaho State University. (2009)

Instructors

Smith, David, Instructor, Physical Therapist Assistant. A.A.S. 2007, B.S. 2008, Idaho State University; M.S. 2015, University of Utah. (2016)

Johnson, Nash, Instructor, Physical Therapist Assistant. A.A.S. 2007, B.S. 2009, D.P.T. 2012, Idaho State University. (2018)

Accreditation

The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) (<http://www.capteonline.org/home.aspx>). Graduates of the program will be eligible to sit for the national examination for licensure for physical therapist assistants.

Program Information

General Education requirements must be completed with a cumulative 2.0 GPA. All other courses in the program must be completed with a 'C' or higher. If a student fails to meet the grade requirements, they will be dismissed from the PTA program. Students who are dismissed may petition to return the following year, however, re-entry is not guaranteed but dependent on the approval of the petition and availability of a seat in that year's cohort of students. More detailed information is available in the program's student handbook:

<https://www.isu.edu/media/libraries/college-of-technology/pdfs/handbooks/Physical-Therapist-Assistant-2018-2019.pdf>

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/pta/>.

Faculty (p. 474)

PTA Courses (p. 632)

Associate of Applied Science: Physical Therapist Assistant

(2 Years)

Code	Title	Credits
Required Courses:		
HO 0106	Medical Terminology	2
HO 0107	Medical Law and Ethics	3
One of the following two options:		
HO 0111	Introduction to Anatomy and Physiology	4
OR		
BIOL 3301 & 3301L & BIOL 3302 & BIOL 3302L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab and Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	8
HO 0208 or BIOL 3305	Introduction to Pathology Introduction to Pathobiology	3
PTA 0104	Introduction to Kinesiology	3
PTA 0105	Introduction to Physical Therapy	1
PTA 0106	Applied Kinesiology	3
PTA 0107	Procedures I	5
PTA 0201	Procedures II	5
PTA 0202	Physical Therapy Assessment	4
PTA 0203	Therapeutic Exercise	5
PTA 0204	Seminar	3
PTA 0213	Clinical Affiliation I	7
PTA 0214	Clinical Affiliation II	7
General Education courses: ¹		
BIOL 1101 & 1101L	Biology I and Biology I Lab ²	4
PSYC 1101	Introduction to Psychology ²	3
Additional General Education courses		9
Total Hours		71-79

¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Practical Nursing

(1-2 Years)

Program Description	Type	Degree
Practical Nursing, I.T.C., Traditional Option (p. 478)	Certificate	
Practical Nursing, I.T.C., Vet to Nurse Option (p. 478)	Certificate	

Program Overview

The Practical Nursing program is designed to prepare graduates with the skills and knowledge to establish a career as a Licensed Practical Nurse and/or articulate to the Associate Degree Registered Nurse course sequence. The Practical Nursing Program provides classroom, laboratory, and student nurse practicum instruction that prepares graduates for entry into practical nursing. Upon successful completion of the practical nursing coursework, students will be awarded an Intermediate Technical Certificate in Practical Nursing and may sit for the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

Graduates are prepared to render competent nursing care in a variety of health care settings including hospitals, nursing homes, clinics, physicians' offices, home health agencies, and health centers.

Immediately upon deciding this major, please contact the Student Services department in the College of Technology at (208) 282-2622.

Program Options

Students applying for the Practical Nursing Program may choose from two options:

A) Traditional Practical Nursing option

The traditional Practical Nursing option is well-suited to the student who wishes to complete a certificate program within 3-4 semesters. The traditional option provides learning opportunities for students in a variety of clinical and classroom setting in order to prepare students to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN). Students in this option take one semester of prerequisite courses followed by three semesters of practical nursing courses. Graduates of this program who are Licensed Practical Nurses are eligible to apply to the Associate Degree Registered Nursing (ADRN) program.

B) Veteran to Nurse Option

This option provides veterans with previous military health experience the opportunity to utilize course and service related training after evaluation by qualified faculty. Students in this option take one semester of prerequisite courses followed by a variable number of semesters of practical nursing courses as determined by previous military healthcare experience. The veteran to nurse option provides learning opportunities for students in a variety of clinical and classroom setting in order to prepare students to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN). Graduates of this program who are licensed practical nurses are eligible to apply to the ADRN program.

Program Admission Requirements

Students are admitted to the Traditional Practical Nursing program option once per year using a competitive application process. Upon completion or near-

completion of prerequisites, submit a program application and application fee to Student Services, College of Technology, (208) 282-2622. Once application is submitted and complete and eligibility verified, the student will take a nationally-normed program entrance examination. This exam score is combined with cumulative post-secondary GPA and years of experience as a CNA to rank-order applicants for each admission class.

Students are admitted to the Veteran to Nurse program option twice a year, Fall and Spring semesters.

The following criteria must be met prior to final admission into the Practical Nursing program:

A) Traditional Practical Nursing option

1. All students must first be admitted to the university. For information on university admission, contact the College of Technology Student Services office at (208) 282-2622.
2. Current Certified Nursing Assistant card.
3. Completion of the following prerequisite courses, or equivalents, with a grade of "C" or better: HO 0111, or BIOL 3301/BIOL 3301L or BIOL 2227/BIOL 2227L AND BIOL 3302/BIOL 3302L.
4. On-line Dosage Calculation Math Course from Workforce Training: <https://cetrain.isu.edu/enrollment/course/medication-math/#description>.
5. Current CPR certification (AHA or American Red Cross only).
6. Cumulative GPA of 2.0.
7. Proof of current immunization and verified good health status per program policy upon conditional acceptance into the program.
8. Background check and drug screening per department policy upon conditional acceptance into the program.

B) Veteran to Nurse

1. All students must first be admitted to the university. For information on university admission, contact the College of Technology Student Services office at (208) 282-2622.
2. Prior Military Health Care Service (individual evaluation by a qualified faculty or counselor).
3. Completion of the following prerequisite courses, or equivalents, with a grade of "C" or better: HO 0111, or BIOL 3301/BIOL 3301L or BIOL 2227/BIOL 2227L AND BIOL 3302/BIOL 3302L. exist for transfer credit or testing. Please consult with Student Services at (208) 282-2622.
4. Current CPR certification (AHA or American Red Cross only).
5. Proof of current immunization and verified good health status per program policy upon conditional acceptance into the program.
6. Background check and drug screening per department policy upon conditional acceptance into the program.

Learning outcomes for the Veteran to Nurse program can be evidenced in any of the following five ways:

1. Credit through equivalent military service and coursework as documented on military educational transcripts;
2. Credit through experiential learning assessment (this requires the creation of a portfolio by the student and is limited to 25 percent of the total credits required for the certificate);

3. Credit by challenge examination (limited to a 24 credits maximum);
4. Transfer credit for equivalent transcribed coursework earned at a regionally accredited institution of higher education; and
5. Credit from formal coursework earned in the ISU Practical Nursing program by completing modules of instruction that address deficiencies between the military experience of a specific veteran and the desired learning outcomes of the program.

Credit for prior learning is limited to a maximum of 50 percent of the total credits of the certificate, with differential limits being assigned to the various types of prior learning. A minimum of 16 resident credit hours must be completed at ISU. Please note "When the credit awarded is dependent upon evaluation by Idaho

State University faculty, such as Experiential Learning Assessment or Challenge Examination, credit will be counted as resident credit." [ISU Undergraduate Catalog: Alternative Credit Opportunities (p. 88)]

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/practicalnursing/>.

Each course must be completed with a C or better before the student can progress in the program.

Faculty (p. 477)

PNUR Courses (p. 638)

Practical Nursing Faculty

Director of Nursing Programs

Brumfield, Jennie L., Director of Nursing Programs; Clinical Assistant Professor, Associate Degree Registered Nurse. A.S. 2005, B.S. 2008, M.S. 2011, Idaho State University; M.S. 2015, Gonzaga University. (2011)

Coordinator and Clinical Instructor

Briggs, Jennifer, Coordinator, Clinical Instructor, Practical Nursing. B.S. 1997, M.S.N. 2011, Idaho State University. (2011)

Clinical Instructor

Petersen, Amy J., Clinical Instructor, Practical Nursing. B.S. 2004, Idaho State University; M.S.N. 2012, Western Governors University. (2013)

Instructors

Karroum, Kristie, Instructor, Practical Nursing. B.S.N. 2003, San Diego State University; M.S.N. 2017, South University. (2018)

Scherer, Teresa L., Instructor, Practical Nursing - Veteran to Nurse. B.S. 2011, M.S. 2014, Idaho State University. (2014)

Intermediate Technical Certificate: Practical Nursing, Traditional Option

(1-2 Years)

Program Prerequisites

Code	Title	Credits
Select one of the following: 4-8		
HO 0111	Introduction to Anatomy and Physiology	
OR		
BIOL 2227 & 2227L & BIOL 3302 & BIOL 3302L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab and Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	
OR		
BIOL 3301 & 3301 & 3301L & BIOL 3302 & BIOL 3302L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab and Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	

Program Requirements

Code	Title	Credits
PNUR 0110 & 0110L	Basic Foundations of Nursing and Nursing Lab I	4
PNUR 0112	Medical Surgical Nursing I	3
PNUR 0114	Clinical Foundations of Nursing I	3
PNUR 0121	Clinical Foundations of Nursing II	4
PNUR 0123	Basic Drug Therapy of Nursing I	2
PNUR 0125	Family Nursing I	3
PNUR 0126 & 0126L	Medical Surgical Nursing II and Nursing Lab II	4
PNUR 0127	Drug Therapy of Nursing II	2
PNUR 0131	Clinical Foundations of Nursing III	3
PNUR 0139	Community-Based Populations I	1
PNUR 0140	Nursing Leadership I	1
ADRN 2211	Mental Health Nursing	3
Total Credits		37-41

Intermediate Technical Certificate: Practical Nursing, Vet to Nurse Option

(1-2 Years)

Program Prerequisites

Code	Title	Credits
Select one of the following: 4-8		
HO 0111	Introduction to Anatomy and Physiology	
or		
BIOL 3301 & 3301L & BIOL 3302 & BIOL 3302L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab and Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	

Program Requirements:

PNUR 0150	Veteran to Nurse Pharmacology	5
PNUR 0151	Veteran to Nurse Nursing Fundamentals	4

PNUR 0152	Veteran to Nurse Medical Surgical Nursing	7
PNUR 0153	Veteran to Nurse Maternal Child Nursing	3
PNUR 0154	Veteran to Nurse Issues in Nursing	3
PNUR 0155	Veteran to Nurse Fundamental Practicum	3
PNUR 0156	Veteran to Nurse Medical Surgical Practicum	4
PNUR 0157	Veteran to Nurse Maternal Child Practicum	2
PNUR 0158	Veteran to Nurse Issues in Nursing Practicum	1
Total Credits		36-40

Learning outcomes for the Veteran to Nurse program can be evidenced in any of the following five ways:

1. Credit through equivalent military service and coursework as documented on military educational transcripts;

2. Credit through experiential learning assessment (this requires the creation of a portfolio by the student and is limited to 25 percent of the total credits required for the certificate);
3. Credit by challenge examination (limited to a 24 credits maximum);
4. Transfer credit for equivalent transcribed coursework earned at a regionally accredited institution of higher education; and
5. Credit from formal coursework earned in the ISU Practical Nursing program by completing modules of instruction that address deficiencies between the military experience of a specific veteran and the desired learning outcomes of the program.

Credit for prior learning is limited to a maximum of 50 percent of the total credits of the certificate, with differential limits being assigned to the various types of prior learning. A minimum of 16 resident credit hours must be completed at ISU. Please note "When the credit awarded is dependent upon evaluation by Idaho State University faculty, such as Experiential Learning Assessment or Challenge Examination, credit will be counted as resident credit." [ISU Undergraduate Catalog: Alternative Credit Opportunities (p. 88)]

Respiratory Therapy

(3 Years)

Program Description	Type	Degree
Respiratory Therapy, A.S. (p. 481)	Degree	A.S.
Health Science, B.S. with Concentration in Health Occupations (p. 457)	Degree	B.S.

Immediately upon deciding this major, please contact the Student Services office of the College of Technology at (208) 282-2622.

Accreditation

The Idaho State University College of Technology Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC, <https://www.coarc.com/>).

Commission on Accreditation for Respiratory Care

Respiratory Therapy Faculty

Director of Allied Health Programs and Clinical Associate Professor

Blakeman, David, Director of Allied Health Programs; Clinical Associate Professor, Respiratory Therapy. A.S. 1994, Lassen College; A.S. 1997, Butte College; B.S. 2008, M.T.D. 2012, Idaho State University. (2009)

Clinical Director and Instructor

Stosich, Stephen, Clinical Director, Instructor, Respiratory Therapy. A.S. 2005, California College for Health Sciences; B.A. 2012, Idaho State University. (2015)

1248 Harwood Road
Bedford, Texas 76021-4244
817-283-2835

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/respiratorytherapy/>.

Each course must be completed with a C or better before the student can progress in the program.

Faculty (p. 480)

RESP Courses (p. 643)

Associate of Science Degree: Respiratory Therapy

(3 Years)

Admission to Program

1. Submit completed application for admission to Idaho State University College of Technology.
2. a) Submit all official college or university transcripts (minimum GPA 2.5). If a student has 14 or more college or university academic credits, those will be used to calculate GPA instead of high school grades.
b) Submit an official high school transcript or GED scores (minimum GPA 2.5).
3. Job Shadowing--Complete a minimum of 12 hours of job shadowing in a respiratory therapy setting (please use form contained in application).
4. Submit proof of current Health Care Provider CPR (Cardiopulmonary Resuscitation) certification. You must remain current throughout the program.
5. The following prerequisite courses, or equivalents, must be completed with a grade of "C" or better in each course:

Code	Title	Credits
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
CHEM 1101 OR CHEM 1111 & 1111L	Introduction to Chemistry ¹ or General Chemistry I and General Chemistry I Lab ¹	3
COMM 1101	Fundamentals of Oral Communication ¹	3
ENGL 1101 or ENGL 1101P	Writing and Rhetoric I ¹ or Writing and Rhetoric I Plus	3-4
HO 0106 or HCA 2210 or HE 2210	Medical Terminology or Medical Terminology and Communication or Medical Terminology and Communication	2
PSYC 1101 or SOC 1101 or SOC 1102	Introduction to Psychology ¹ or Introduction to Sociology or Social Problems	3

¹ Contributes to a General Education requirement.

Additional General Education (p. 57) and Other Courses:

Code	Title	Credits
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab ¹	4
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab ¹	4
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
Objective 3		3
Objective 4 (minimum 6 cr)		6
One Objective 6 course with different prefix from that chosen earlier		3
Objective 7 or 8		3
Objective 9 (minimum 3 cr)		3
Total Credits		29

¹ If not taken prior to admission - both 3301 and 3302 are required.

Respiratory Therapy Courses

Code	Title	Credits
RESP 2200 & 2200L	Introduction to Respiratory Care and Introduction to Respiratory Care Lab	4
RESP 2211	Pharmacotherapy for Respiratory Therapists	2
RESP 2214	Introduction to Pulmonary Disease	4
RESP 2231	Patient Assessment I	2
RESP 2232	Patient Assessment II	2
RESP 2280	Case Management I	2
RESP 3301 & 3301L	Mechanical Ventilators and Mechanical Ventilators Lab	4
RESP 3310	Case Management II	2
RESP 3320	Clinical Practice of Therapeutic Procedures I	5
RESP 3325	Clinical Practice of Therapeutic Procedures II	3
RESP 3330	Clinical Practice of Therapeutic Procedures III	5
RESP 3335	Clinical Practice of Therapeutic Procedures IV	5
Total Credits		40

Upon successful completion of the Respiratory Therapy Program, graduates are eligible to take the National Board for Respiratory Care (NBRC) entry level TMC exam. When you achieve the lower cut score, you will receive credentials as a Certified Respiratory Therapist. When you achieve the higher cut score, you will be eligible for the Clinical Simulation Examination. Once you have successfully

passed the Clinical Simulation Examination, you will receive your credential as a Registered Respiratory Therapist.

Respiratory Therapy students must maintain a GPA of 2.0 or better, and complete all biology, health, and respiratory therapy courses with a "C" or better to remain in the program.

Robotics and Communications Systems Engineering Technology

(1.5 to 3 Years)

Program Description	Type	Degree
Laser/Electro-Optics Technology, A.T.C. (p. 485)	Certificate	
Robotics and Communications Systems Engineering Technology, A.T.C. (p. 485)	Certificate	
Robotics and Communications Systems Engineering Technology, A.A.S. (p. 484)	Degree	A.A.S.
Robotics Engineering Technology, B.A.S. (p. 407)	Degree	B.A.S.

Objectives

Graduates of the Robotics and Communications Systems Engineering Technology program will:

1. Obtain gainful employment as professional, highly skilled, broad-based electronics technicians capable of working in a wide variety of electronics-related fields.
2. Successfully integrate as productive team members in the electronics industry utilizing written, oral and electronic communications skills.
3. Develop, install, maintain, troubleshoot, and repair equipment and circuitry integrated in audio, video, communications, laser, robotics, industrial electronics with embedded systems, and pulse electronic systems.
4. Complete projects, produce project overviews with written and oral presentation components, and identify and address potential financial, ethical, and social concerns.

5. Continue to expand their knowledge and remain current in a continuously expanding industry.

Program Information

Required courses will be taught in sequential blocks of instruction. Successful completion of a course is required before the student can progress in the program. If the student fails any math, theory, or lab course, then that course must be repeated and a passing grade obtained before the student can advance in the program. The student must exit the program and make up their deficiency through Technical General Education or other appropriate methods. The student will then be allowed to repeat the course at the next available program opening.

Students must earn a C- or better in all RCET courses to progress in the program and graduate. An accumulative 2.0 GPA is required for graduation. For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/robotics/>.

Accreditation

The Associate of Applied Science in Robotics and Communications Systems Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

Faculty (p. 483)

RCET Courses (p. 643)

Robotics and Communications Systems Engineering Technology Faculty

Coordinator and Clinical Senior Instructor

Slack, Shane, Coordinator, Clinical Senior Instructor, Robotics and Communications Systems Engineering Technology. Technical Certificate 1997, A.A.S. 1997, Idaho State University. (1999)

Clinical Assistant Professor

Call, Geran, Clinical Assistant Professor, Robotics and Communications Systems Engineering Technology. A.S. 2006, A.A.S. 2006, Brigham Young University; B.S. 2008, M.S. 2009, Utah State University. (2012)

Clinical Instructors

Leishman, Tim, Clinical Instructor, Robotics and Communications Systems Engineering Technology. A.A.S. 2002, Idaho State University. (2013)

Shroll, Rob L., Clinical Instructor, Robotics and Communications Systems Engineering Technology. Technical Certificate 2002, A.A.S. 2002, Idaho State University. (2009)

Instructors

Rossiter, Timothy, Instructor, Robotics and Communications Systems Engineering Technology. A.A.S. 2005, Idaho State University. (2016)

(Vacant)

Emeriti

Durtschi, Ralph H., Senior Instructor, Robotics and Communication Systems Engineering Technology.

Norton, Randy L., Assistant Professor, Robotics and Communication Systems Engineering Technology. 1997-2019

Bachelor of Applied Science: Robotics Engineering Technology

(4 Years)

In addition to 8 of the 9 General Education Objectives (a minimum of 36 credits-- see the General Education Requirements (p. 57) in the Academic Information section of this catalog), Robotics Engineering Technology majors are required to take the following courses:

Code	Title	Credits
Required Courses:		
ENGL 3307	Professional and Technical Writing	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory	4
RCET 0153A	Basic Electricity and DC Circuit Theory	4
RCET 0153B	Basic Electricity and AC Circuit Theory	4
RCET 0154A	Analog Control Devices Theory	4
RCET 0154B	Digital Control Devices Theory	4
RCET 0155A	Basic Electricity and DC Circuit Lab	2
RCET 0155B	Basic Electricity and AC Circuit Lab	2
RCET 0156A	Analog Control Devices Laboratory	2
RCET 0156B	Digital Control Devices Laboratory	2
RCET 0251	Systems Analog and Digital Theory	6
RCET 0253	Systems Analog and Digital Laboratory	5
RCET 0264	Introductory Calculus	4
RCET 0265	Computer Fundamentals and Introduction to Programming	4
RCET 0267	Radio Frequency Transmission Theory	6
RCET 0268	Radio Frequency Transmission Lab	5
RCET 0271	Introduction to Lab Simulation Software	2

RCET 1372	Calculus for Advanced Electronics	4
RCET 3371	Advanced Programming Techniques and GUI Development	4
RCET 3373	Advanced Computer Architecture and Embedded Systems Theory	5
RCET 3374	Advanced Systems Analysis Theory	4
RCET 3375	Advanced Computer Architecture and Embedded Systems Laboratory	5
RCET 3376	Advanced Systems Analysis Theory	5
Select a minimum of 10 credits from the following:		
RCET 3331	Laser Systems and Optics Theory	4
RCET 3332	Laser Systems and Optics Laboratory	3
RCET 3370	Electronic Drafting for PCB Design	3
RCET 3382	Rapid Prototyping Technologies	2
RCET 3383	Advanced Laser Systems and Optics Theory	5
RCET 3384	Advanced Laser Systems and Optics Laboratory	3
RCET 3396	Independent Study	1-8
RCET 3398	Special Topics	1-8
MGT or OLP Upper Division Courses Numbered 3300-4499		3-9

For information contact:

College of Technology
 Student Services
 RFC Building (Bldg #48)
 (208) 282-3939
<http://www.isu.edu/ctech/studentervices/>

Associate of Applied Science: Robotics and Communications Systems Engineering Technology

(3 Years)

Code	Title	Credits
Required Courses:		
RCET 0153A	Basic Electricity and DC Circuit Theory	4
RCET 0153B	Basic Electricity and AC Circuit Theory	4
RCET 0154A	Analog Control Devices Theory	4
RCET 0154B	Digital Control Devices Theory	4
RCET 0155A	Basic Electricity and DC Circuit Lab	2
RCET 0155B	Basic Electricity and AC Circuit Lab	2
RCET 0156A	Analog Control Devices Laboratory	2
RCET 0156B	Digital Control Devices Laboratory	2
RCET 0251	Systems Analog and Digital Theory	6

RCET 0253	Systems Analog and Digital Laboratory	5
RCET 0264	Introductory Calculus	4
RCET 0265	Computer Fundamentals and Introduction to Programming	4
RCET 0267	Radio Frequency Transmission Theory	6
RCET 0268	Radio Frequency Transmission Lab	5
RCET 0271	Introduction to Lab Simulation Software	2
RCET 1372	Calculus for Advanced Electronics (satisfies a General Education Requirement)	4
RCET 3371	Advanced Programming Techniques and GUI Development	4

RCET 3373	Advanced Computer Architecture and Embedded Systems Theory	5	PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ²	4
RCET 3374	Advanced Systems Analysis Theory	4	Additional General Education courses		6
RCET 3375	Advanced Computer Architecture and Embedded Systems Laboratory	5	Total Credits		96
RCET 3376	Advanced Systems Analysis Theory	5	¹ See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog. ² Contributes to a General Education requirement.		
General Education courses: ¹					
COMM 1101	Fundamentals of Oral Communication ²	3			

Advanced Technical Certificate: Laser/Electro-Optics Technology

(1.5 Years)

Code	Title	Credits
Required Courses:		
RCET 0153A	Basic Electricity and DC Circuit Theory	4
RCET 0153B	Basic Electricity and AC Circuit Theory	4
RCET 0154A	Analog Control Devices Theory	4
RCET 0154B	Digital Control Devices Theory	4
RCET 0155A	Basic Electricity and DC Circuit Lab	2
RCET 0155B	Basic Electricity and AC Circuit Lab	2
RCET 0156A	Analog Control Devices Laboratory	2
RCET 0156B	Digital Control Devices Laboratory	2
RCET 0251	Systems Analog and Digital Theory	6
RCET 0253	Systems Analog and Digital Laboratory	5

RCET 0264	Introductory Calculus	4
RCET 0271	Introduction to Lab Simulation Software	2
RCET 3331	Laser Systems and Optics Theory	4
RCET 3332	Laser Systems and Optics Laboratory	3
ENGL 1101	Writing and Rhetoric I ¹	3
or ENGL 1101P	Writing and Rhetoric I Plus	
COMM 1101	Fundamentals of Oral Communication ¹	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ¹	4
Total Credits		58

¹ Contributes to a General Education requirement.

Advanced Technical Certificate: Robotics and Communications Systems Engineering Technology

(3 Years)

Code	Title	Credits
Required Courses:		
RCET 0153A	Basic Electricity and DC Circuit Theory	4
RCET 0153B	Basic Electricity and AC Circuit Theory	4
RCET 0154A	Analog Control Devices Theory	4
RCET 0154B	Digital Control Devices Theory	4
RCET 0155A	Basic Electricity and DC Circuit Lab	2
RCET 0155B	Basic Electricity and AC Circuit Lab	2
RCET 0156A	Analog Control Devices Laboratory	2
RCET 0156B	Digital Control Devices Laboratory	2
RCET 0251	Systems Analog and Digital Theory	6
RCET 0253	Systems Analog and Digital Laboratory	5
RCET 0264	Introductory Calculus	4
RCET 0265	Computer Fundamentals and Introduction to Programming	4
RCET 0267	Radio Frequency Transmission Theory	6
RCET 0268	Radio Frequency Transmission Lab	5

RCET 0271	Introduction to Lab Simulation Software	2
RCET 1372	Calculus for Advanced Electronics	4
RCET 3371	Advanced Programming Techniques and GUI Development	4
RCET 3373	Advanced Computer Architecture and Embedded Systems Theory	5
RCET 3374	Advanced Systems Analysis Theory	4
RCET 3375	Advanced Computer Architecture and Embedded Systems Laboratory	5
RCET 3376	Advanced Systems Analysis Theory	5
ENGL 1101	Writing and Rhetoric I ¹	3-4
or ENGL 1101P	Writing and Rhetoric I Plus	
COMM 1101	Fundamentals of Oral Communication ¹	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory ¹	4
Total Credits		93-94

¹ Contributes to a General Education requirement.

Surveying and Geomatics Engineering Technology

Program Description	Type	Degree
Surveying and Geomatics Engineering Technology, B.S. (p. 487)	Degree	B.S.

Objectives

Graduates of the Surveying and Geomatics Engineering Technology program will:

1. Have the basic math and science knowledge and technical skills of the Surveying and Geomatics Engineering Technology discipline appropriate to enter careers in the geospatial community, for example, boundary surveying and legal principles, route and construction surveying, survey measurement analysis and adjustments, Global Positioning System (GPS), photogrammetry, geodesy, land/Geographic Information Systems (GIS), and 3D scanning.
2. Have the ability to execute surveying/geomatics project activities for delivery in response to the needs of private and public industry.
3. Have appropriate understanding of standards and specifications of surveying/geomatics practices in analyzing positional accuracy of measurement systems and in preparing land records and plats by meeting legal requirements.

4. Have the knowledge to pass the national Fundamentals of Surveying examination, and maintain a commitment to lifelong learning.
5. Have an understanding of the professional, ethical and social issues with commitment to quality and dependability.

Program Information

For a list of course sequences, cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/geomatics/>.

Each course must be completed with a C- or better before the student can progress in the program.

Accreditation

The Bachelor of Science in Surveying and Geomatics Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

Faculty (p. 486)

GEMT Courses (p. 572)

Surveying and Geomatics Engineering Technology Faculty

Coordinator and Clinical Assistant Professor

Liimakka, Robert, Coordinator, Clinical Assistant Professor, Surveying and Geomatics Engineering Technology. A.A.S. 1983, Gogebic Community College; B.S. 1986, Michigan Technological University; M.S. 2000, University of Maine. (2013)

Professor

Bajracharya, Rajendra R., Professor, Surveying and Geomatics Engineering Technology. B.S. 1971, Tri-Chandra College, Nepal; B.S. 1976, North East London Polytechnic, England; M.S. 1986, Ohio State University; Ph.D. 1997, University of Wisconsin-Madison. (2001)

Bachelor of Science: Surveying and Geomatics Engineering Technology

To declare a major in Surveying and Geomatics Engineering Technology, a student must have completed an AAS Degree in Civil Engineering Technology at ISU or equivalent, or have permission of the program coordinator. Students will meet with an advisor prior to the third year of the program to declare the major. For further details, please consult faculty of the Surveying and Geomatics Engineering Technology program.

The following courses are required for a Bachelor of Science degree.

Code	Title	Credits
CET 0111	Drawing with CAD	3
CET 0112	Beginning Survey	3
CET 0121	Civil Engineering Technology Drafting	3
CET 0122	Intermediate Surveying and Spatial Analysis	3
CET 0216	Route Survey and GPS Fundamentals	3
CET 0226	Construction Surveying	3
CET 0228	Principles of GIS	3
CET 0232	Plan Reading and Worksite Safety	3
CET 0243	Public Works	3
CET 0250	Unmanned Aerial Systems/Imagery Analysis	3
CET 0251	Introduction to Legal Descriptions	1
Complete either this course:		5
MATH 1147	College Algebra and Trigonometry	
OR these two courses:		6
CET 0110	Applied Mathematics I	
CET 0120	Applied Mathematics II	
Complete either these two courses:		8
CET 0115A	Materials Testing I	
CET 0125A	Materials Testing II	
OR these two courses:		6
BT 0170	Computer Literacy and Business Software	
GEMT 2231	Survey Computations	
ENGL 3307	Professional and Technical Writing	3
GEMT 3310	Boundary Surveying Law	3
GEMT 3311	Advanced Surveying	3
GEMT 3312	Public Land Surveying	3
GEMT 3313	Surveying Software Applications	2
GEMT 3314	Research and Evidence in Surveying	3
GEMT 3315	Surveying Adjustments and Coordinate Systems	3
GEMT 3317	Subdivision Planning and Platting	2
GEMT 3319	Writing Legal Descriptions	1
GEMT 4400	Essentials of Surveying	2
GEMT 4411	Geodesy	3
GEMT 4415	Survey Office Practice	3
GEMT 4416	Surveying Project	3
GEMT 4430	GPS Principles and Applications	3

Complete either these two courses: 8

MATH 1170	Calculus I
MATH 1175	Calculus II

OR these two courses:

RCET 0264	Introductory Calculus
RCET 1372	Calculus for Advanced Electronics

Select ONE of the following: 3

GEMT 4432	Principles of Photogrammetry
GEOL 4409	Remote Sensing

Select ONE of the following: 3

GEMT 4425	Principles of Cartography
GEOL 4404	Advanced Geographic Information Systems
GEOL 4427	Information Technology for GIS

General Education Requirements

COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ENGL 1101	Writing and Rhetoric I (Partially satisfies General Education Objective 1)	3
or ENGL 1101P	Writing and Rhetoric I Plus	
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory (Partially satisfies General Education Objective 5)	4
HIST 1118	US History and Culture (Satisfies General Education Objective 7)	3
ECON 1100	Economic Issues (Each of these 3 courses partially satisfy General Education Objective 6)	3
or ECON 2201	Principles of Macroeconomics	
or ECON 2202	Principles of Microeconomics	
PHIL 1103	Introduction to Ethics (Partially satisfies General Education Objective 4)	3
Other General Education Objective courses		12
Total Credits		130-133

Unmanned Aerial Systems

(1/2 Year to 2 Years)

Program Description	Type	Degree
Unmanned Aerial Systems, B.T.C. (p. 489)	Certificate	
Unmanned Aerial Systems, I.T.C. (p. 489)	Certificate	
Unmanned Aerial Systems, A.A.S. (p. 489)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

1. The Unmanned Aerial Systems (UAS) program at the Idaho State University College of Technology addresses the interests and requirements of participants in career opportunities within growing UAS sectors such as aerial photography, surveying, agriculture, first responders, and security.
2. The program provides basic skills, knowledge, and training in current unmanned aerial systems, including principles of flight, controls systems, basic electronics, video and imagery collection and analysis, airframes, and payloads.

3. The program provides learning opportunities involving critical thinking and problem solving.
4. The program provides students with knowledge of legal and ethical concerns related to the use of UAS.

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/unmannedaerialsystems/>.

Each course must be completed with a C- or better before the student can progress in the program.

Faculty (p. 488)

UAS Courses (p. 655)

Unmanned Aerial Systems Faculty

Coordinator and Instructor

Sharp, Mark, Coordinator, Instructor, Unmanned Aerial Systems. B.S. 2006, Everglades University; M.S. 2018, Embry-Riddle Aeronautical University. (2019)

Instructor

Gneiting, Allisha, Instructor, Unmanned Aerial Systems. A.A.S. 2008, Idaho State University. (2017)

Associate of Applied Science: Unmanned Aerial Systems

(2 Years)

Code	Title	Credits			
Required Courses:			UAS 0225	Flight Laboratory III	5
UAS 0100	Introduction to Unmanned Aerial Systems	1	UAS 0228	Principles of GIS	3
UAS 0110	Applied Mathematics and Electronics for Unmanned Systems	3	UAS 0240	Basic Wiring and Avionics Installation	5
UAS 0115	Flight Theory	3	UAS 0250	Imagery Analysis	3
UAS 0120	Flight Laboratory I	4	UAS 0255	Autopilot Theory	3
UAS 0150	Unmanned Systems Design	2	UAS 0270	Autopilot Laboratory	5
UAS 0155	Flight Control and Subsystems	4	UAS 0282	Introduction to Rapid Prototyping	2
UAS 0170	Flight Laboratory II	4	General Education courses: ¹		
UAS 0200	Advanced Electronics and Payload for Unmanned Systems	4	PHYS 1101	Elements of Physics	4
UAS 0212	Beginning Surveying, GPS and Geo-Referencing	3	& 1101L	and Elements of Physics Laboratory ²	4
			Additional General Education courses		
			Total Credits		
					70

¹ See General Education Requirements (minimum 15 credits) for the A.A.S. Degree at the start of the College of Technology section of the catalog.

² Contributes to a General Education requirement.

Intermediate Technical Certificate: Unmanned Aerial Systems

(1 Year)

Code	Title	Credits			
Required Courses:			UAS 0155	Flight Control and Subsystems	4
UAS 0100	Introduction to Unmanned Aerial Systems	1	UAS 0170	Flight Laboratory II	4
UAS 0110	Applied Mathematics and Electronics for Unmanned Systems	3	UAS 0282	Introduction to Rapid Prototyping	2
UAS 0115	Flight Theory	3	ENGL 1101	Writing and Rhetoric I	3-4
UAS 0120	Flight Laboratory I	4	or ENGL 1101P	Writing and Rhetoric I Plus	
UAS 0150	Unmanned Systems Design	2	COMM 1101	Fundamentals of Oral Communication ¹	3
			Any Objective 6 course		
			Total Credits		
					32-33

¹ Contributes to a General Education requirement.

Basic Technical Certificate: Unmanned Aerial Systems

(1/2 Year)

Code	Title	Credits
Required Courses:		
UAS 0100	Introduction to Unmanned Aerial Systems	1
UAS 0110	Applied Mathematics and Electronics for Unmanned Systems	3
UAS 0115	Flight Theory	3
UAS 0120	Flight Laboratory I	4
Total Credits		11

Welding

(1 to 2 Years)

Program Description	Type	Degree
Welder General, I.T.C. (p. 491)	Certificate	
Welder-Fitter, A.T.C. (p. 491)	Certificate	
Welder-Fitter, A.A.S. (p. 491)	Degree	A.A.S.
Applied Science, B.A.S. (p. 406)	Degree	B.A.S.

Objectives

1. To prepare graduates for gainful employment in critical welding applications to include: pipeline, petro-chemical, power generation, sanitation, and high purity welding.
2. Additionally, graduates will be prepared to begin their welding careers by completing courses in math, theory, layout, and blueprint reading to augment their welding skills.

Welding Faculty

Coordinator and Master Instructor

Humpherys, Randy, Coordinator, Master Instructor, Welding. Technical Certificate 1978, A.A.S. 2005, Idaho State University. (1989)

Clinical Instructors

Bloxham, Lucas, Clinical Instructor, Welding. Technical Certificate 1997, Idaho State University. (2005)

Erickson, David L., Clinical Instructor, Welding. (2007)

Instructors

Ryan, Buck, Instructor, Welding. Advanced Technical Certificate 2007, Idaho State University. (2017)

Lester, Kyle, Instructor, Welding. Technical Certificate 2005, Advanced Technical Certificate 2006, A.A.S. 2006, Idaho State University. (2018)

Emeritus

Rost, Robert, Senior Instructor, Trade and Industrial Department. 1972-2007

Program Information

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <https://www.isu.edu/welding/>.

Students must pass each welding core course with a letter grade of C (2.0) or better to continue in the program. More detailed information is available in the program's student handbook:

<https://www.isu.edu/media/libraries/college-of-technology/pdfs/handbooks/Welding-2018-19.pdf>

Faculty (p. 490)

WELD Courses (p. 656)

Associate of Applied Science: Welder-Fitter

(2 Years)

Code	Title	Credits
Required Courses:		
WELD 0130	Safety and Leadership	2
Select one of the following two options.		
Option one:		
WELD 0131	Welding Practice I	12
OR		
Option two:		
WELD 0131A	Shielded Metal Arc Welding	4
AND		
WELD 0131B	Gas Metal Arc Welding	4
AND		
WELD 0131C	Flux Cored Arc Welding	4
Additional courses:		
WELD 0132	Welding Practice II	12
WELD 0140	Welding Theory	2
WELD 0141	Mechanical Drawing	2

WELD 0142	Blueprint Reading for Welders	2
WELD 0143	Shop Math I	2
WELD 0231	Welding Practice III	13
WELD 0232	Welding Practice IV	13
WELD 0241	Metal Layout	3
WELD 0243	Shop Math II	3
General Education courses: ¹		
COMM 1101	Fundamentals of Oral Communication ²	3
Additional General Education courses		12
Total Hours		81

Elective Course:

Code	Title	Credits
WELD 0105	Welding	1-4

¹ See General Education Requirements (minimum 15 credits) for A.A.S. degree at the beginning of the College of Technology (p. 401) section of the catalog.

² Contributes to a General Education requirement.

Advanced Technical Certificate: Welder-Fitter

(2 Years)

Code	Title	Credits
Required Courses:		
WELD 0130	Safety and Leadership	2
Select one of the following two options.		
Option one:		
WELD 0131	Welding Practice I	12
OR		
Option two:		
WELD 0131A	Shielded Metal Arc Welding	4
AND		
WELD 0131B	Gas Metal Arc Welding	4
AND		

WELD 0131C	Flux Cored Arc Welding	4
Additional courses:		
WELD 0132	Welding Practice II	12
WELD 0140	Welding Theory	2
WELD 0141	Mechanical Drawing	2
WELD 0142	Blueprint Reading for Welders	2
WELD 0143	Shop Math I	2
WELD 0231	Welding Practice III	13
WELD 0232	Welding Practice IV	13
WELD 0241	Metal Layout	3
WELD 0243	Shop Math II	3
Total Hours		66

Intermediate Technical Certificate: Welder General

(1 Year)

Code	Title	Credits
Required Courses:		
WELD 0130	Safety and Leadership	2
Select one of the following two options.		
Option one:		
WELD 0131	Welding Practice I	12
OR		

Option 2:		
WELD 0131A	Shielded Metal Arc Welding	4
AND		
WELD 0131B	Gas Metal Arc Welding	4
AND		
WELD 0131C	Flux Cored Arc Welding	4
Additional courses:		
WELD 0132	Welding Practice II	12
WELD 0140	Welding Theory	2

WELD 0141	Mechanical Drawing	2
WELD 0142	Blueprint Reading for Welders	2
WELD 0143	Shop Math I	2
Total Hours		34

Adult Basic Education

(208) 282-2468

<https://www.isu.edu/adulteducation/>

Overview

Adult Basic Education (ABE) offers free instruction to those aged 16 and older with academic and English language skill building needs who are not enrolled in K-12. The Adult Success Center on the third floor of the Roy F. Christensen Building (Building #48) in Pocatello as well as ISU outreach sites in American Falls, Blackfoot, and Soda Springs provide these services. ABE serves the seven counties of Bannock, Bear Lake, Bingham, Caribou, Franklin, Oneida, and Power. Education is a pathway to a better quality of life for all.

ABE provides free assessment and instruction in language arts, basic math, science, and social studies to assist individuals with their educational or employment goals. ABE's program aligns with the State of Idaho required College and Career Readiness curriculum. Participants may prepare for the General Education Development (GED®) or college entrance examinations. Participants are encouraged to consider transitioning to college through the College of Technology Successful Transition and Retention Track (START) program. ABE programs offer various settings and methods to help students learn via their desired methods and at their desired rate. Classes and independent study through books, audio and video materials, tutors, and computers are available.

ABE sponsors a GED® commencement ceremony in June on the Idaho State University campus in the Ballroom of the Pond Student Union building.

General Educational Development (GED®)

The General Educational Development (GED®) service assists people who have not earned a high school diploma. The Idaho State University Testing Center offers the GED® examinations. Individuals coordinate these examinations with the Testing Center. There is a cost for each section of the GED examination. Limited scholarships for these costs may be available through ABE and the Center for New Directions. Interested participants should contact the Adult Success Center to determine availability and eligibility criteria. This contact needs to occur before scheduling with the Testing Center.

English as a Second Language (ESL)

Additionally, ABE's English as a Second Language (ESL) program assists speakers of other languages learn to speak, understand, read, and write English. ESL offers instruction in the English needed for daily life in the United States and includes skills useful in education, employment, residency, and citizenship. The curriculum emphasizes formal grammar lessons and instruction in the social uses of language. ESL classes are offered in American Falls, Blackfoot, and Pocatello.

Faculty (p. 493)

Adult Basic Education Faculty

Director

Mereness, Corey, B.A. 1998, Boise State University; M.Ed. 2004, University of Idaho. (2016)

Instruction Coordinators

Gooch, Heather, B.A. 1995, Utah State University; M.A. 1999, Idaho State University. (1996)

Hughes, Susan, B.A. 1985, Idaho State University; Teaching English as a Foreign Language Certificate 2014, Azusa Pacific University. (2016)

Watts, Valerie, B.S. 1981, Idaho State University. (2015)

Center for New Directions

(208) 282-2454
Email: cnd@isu.edu
<https://www.isu.edu/cnd/>

Overview

The Center for New Directions (CND) provides educational program information, student support services, and short term career and mental health counseling by licensed professional counselors and supervised counseling interns. The CND also provides resource and support services through a variety of

workshops, classes, and groups designed to assist individuals as they enter and complete training and prepare for job placement. The CND offers scholarships for students who enroll in non-traditional technology programs as well as single parents at the College of Technology. All services are confidential and provided at no cost. Contact the CND for information about services on the Pocatello campus and at Idaho State Outreach Centers located in Blackfoot and American Falls.

Staff (p. 494)

Center for New Directions Staff

Assistant Director

(vacant)

Special Populations Facilitator

Beal, Erin, A.A.S. 2004, B.S. 2004, Idaho State University. (2017)

Counselors

Ludwig, Karen, B.A. 1989, Utah State University; M.Coun. 2011, Idaho State University. (2017)

CTE Advanced Opportunities

What is CTE Advanced Opportunities?

CTE Advanced Opportunities is a program for high school students that allows them to receive college credit for the skills gained in high school career & technical education classes. These credits are affordable and can save students a significant amount of money in tuition costs.

Pocatello ID 83209-8380
(208) 282-4663
<https://www.isu.edu/cteadvancedopportunities/>

Coordinator

Putnam, Tom, B.S 2001, M.P.A 2003, M.Coun. 2012, Idaho State University. (2012)

Types of CTE Advanced Opportunities:

DUAL CREDIT

- Cataloged College Course
- \$65 per credit
- Fees paid at time of registration
- Credit earned simultaneously at high school and college
- Fast Forward eligible (<https://nextsteps.idaho.gov/resources/fast-forward-program>)

TECHNICAL COMPETENCY CREDIT (TCC)

- Competency Based
- \$10 per credit
- Fees paid when student chooses to purchase credits within 2 years
- Post-secondary credit awarded at time of purchase
- NOT Fast Forward eligible

Contact Information

The CTE Advanced Opportunities office provides support services designed to help high school students understand what career and technical courses are available at their high school and develop a stronger bridge for students between secondary and post-secondary education. For more information, please contact our office.

Southeast Idaho Region 5, CTE Advanced Opportunities
921 S 8th Ave Stop 8380

Division of Continuing Education and Workforce Training

Gary Salazar, Director
 Division of Continuing Education and Workforce Training (CEWT)
 921 S. 8th Ave., Stop 8380
 Pocatello, ID 83209, 8380
 (208) 282-1059
cetrain@isu.edu
<https://cetrain.isu.edu/>

Continuing Education

Continuing Education encompasses three areas within our division. First, some of our courses help businesses and educators grow and develop in their respective fields. Several bodies throughout campus offer programs awarding Continuing Education Units (CEUs), and we support them administratively with our central repository of course data. We also work with other ISU departments and outside entities for conference support and courses that award CEUs. For more information on professional development courses with CEUs, please contact Shirley Hockett at mcelshir@isu.edu.

We incorporate non-credit community outreach courses within Continuing Education. These courses engage and enrich our community through cultural, social, and economic development. Course topics, including culinary arts, dancing, arts and crafts, physical fitness, and other topics, meet the needs of our young and adult audiences.

Lifelong Learning is supported through the Continuing Education office. Idaho State University has supported Elderhostel and Road Scholar programs for Idahoans 50 years of age and older for several years. These programs feature member-directed, peer-led programs throughout the fall and spring semesters on a wide variety of topics. Members join for one semester at a time, which allows them to attend any of the offerings for that group in that given semester. Currently, there are three lifelong learning chapters we support: New Knowledge Adventures in Pocatello (<https://cetrain.isu.edu/enrollment/course/nka-membership>), Friends for Learning in Idaho Falls (<https://cetrain.isu.edu/enrollment/friends-learning>), and New Knowledge Adventures in Treasure Valley (<https://cetrain.isu.edu/enrollment/new-knowledge-adventures-treasure-valley>).

Workforce Training

Workforce Training encompasses four areas within our division. One focus is on entry-level health programs such as Certified Nursing Assistant (CNA), Emergency Medical Technician (EMT), Phlebotomy, and Dental Assisting

Business and Support Services Department

Overview

Technical General Education (TGE) course content is designed in accordance with suggestions and directions from program instructors, technical advisory committees, and industry employers. These courses complement the student's technical training in mathematics, job search skills, ethics in technology, and human relation issues pertinent to the workplace. General education objective coursework is also offered through the TGE program in English, mathematics, oral communications, and physics.

Technical General Education courses can be taken before starting a program or taken concurrently with the student's program courses and may be required

with supplemental programs in AHA BLS Provider CPR and Assistance with Medications. These programs are offered multiple times a year and help individuals begin new careers or maintain certifications needed for positions they currently or will potentially hold.

Second, we have trade courses and apprenticeship programs, which help students gain entry into new careers or upgrade existing training. The trade courses include welding, motor operated valve (MOV) design basics, and flagging. Our core apprenticeship programs include Electrical, HVAC, and Plumbing, each providing four years of in-class related training while the students also work in their industry occupations. We also help develop tailored apprenticeship programs with companies in our region. Contact Paul Dickey at pdickey@isu.edu to learn more about setting up a new apprenticeship program to meet your needs.

Third, we offer courses meant to upgrade skills and boost resumes on business related topics. Each semester we have a core offering of courses on the Microsoft Office Suite. We also cover topics like QuickBooks, marketing, building a business, computer coding, cyber security, dealing with difficult people, and many others. These courses are taught by professionals with years of experience to help attendees get real-life examples of how to put these tools to use in their current positions or when seeking new career opportunities.

Last, our division also meets community needs through our customized training offerings. Our Business Consultant, Scott Stephens, works with local and regional businesses to create custom programs on almost any topic and can be provided during the day, evening, or on weekends. Contact Scott Stephens at stepscot@isu.edu to learn more about our customized training opportunities.

Conferencing Services

Continuing Education and Workforce Training also hosts and provides services to assist with conferences. Our conference services are customizable to meet University and local needs. We have experience with small groups as well as larger enrollments of 500+ in attendance. We help manage the logistics such as registration, budget management, presenter coordination, space reservations, catering, and much more. Contact Shirley Hockett at mcelshir@isu.edu to learn more about our conferencing services.

For all other program information and current course offerings visit <https://cetrain.isu.edu/>.

to complete the Technical Certificate, Advanced Technical Certificate, and/or Associate of Applied Science degree. Students should consult their program's required course lists to determine which of the TGE courses must be taken.

Program Information

For online information about this department and its programs, visit <https://www.isu.edu/tech/departments/bss/>.

Programs require students to achieve certain grades in order to advance each semester. Specific information is available in each program's student handbook.

Faculty (p. 496)

TGE Courses (p. 652)

Business and Support Services Faculty

Chair

Rhoads, Teena J., Department Chair, Business and Support Services. B.S. 1994, M.Coun. 1997, Idaho State University. (1987)

Coordinator and Clinical Assistant Professor

Lambert, Clayn, Coordinator, Clinical Assistant Professor, General Education. B.A. 1999, Brigham Young University; M.A. 2002, University of Idaho. 2002, Ph.D. 2018, Idaho State University

Clinical Assistant Professor

Wilson, Matt C., Clinical Assistant Professor, General Education. A.A. 2005, College of Southern Idaho; B.A. 2007, Lewis-Clark State College; M.A. 2011, Northern Arizona University. (2013)

Clinical Senior Instructors

Barclay, Bryan, Clinical Senior Instructor, General Education. B.S. 1980, Brigham Young University; M.S. 1987, University of Washington; Ph.D. 2001, Utah State University. (1999)

Clarke, Michael R., Clinical Senior Instructor, General Education. B.S. 1992, California Polytechnic State University; M.B.A. 2008, University of Phoenix. (2012)

Instructors

Allen, Donald, Instructor, General Education and Successful Transitions and Retention Track (START). B.S. 1985, M.S. 1987, Idaho State University. (2006)

Bennett, Geoffrey G., Instructor, General Education. B.A. 2008, M.A. 2010, Idaho State University. (2015)

Matusek, Michael, Instructor, General Education. B.S. 2011, M.S. 2014, Idaho State University. (2016)

Emeriti

Eilander, Leann, Senior Instructor, General Education. 1981-2007

Pein, Deborah M., Assistant Professor, General Education. 1988-2011

START (Successful Transitions And Retention Track)

Overview

START (Successful Transitions And Retention Track) is a program made possible by funding through a grant from The J.A. & Kathryn Albertson Foundation Continuous Enrollment Initiative and Idaho State University. The program is free to accepted students.

START's Mission

START at Idaho State University provides social and academic support as students manage barriers while they pursue sustainable career and life goals.

More information about START

Send an email to start@isu.edu or call (208) 282-4359. We are located on the 3rd floor of the Roy F. Christensen Building, 777 Memorial Drive.

Acceptance Process

- Complete START Application (<https://docs.google.com/forms/d/e/1FAIpQLSdoNY79ZAITbPestAXTkncUV02I2AFamKLmd-RvMNismxxbFg/viewform>)
- Participate in an interview
- Complete the GAIN tests

Who can START?

- Must have a high school diploma or be working toward a GED or have already passed the GED.
- Anyone needing to refresh their skills.
- Must successfully complete an application process and meet all requirements.
- Should have a desire to further their education.
- Must have enthusiasm and a strong work ethic.
- Must be willing to work for a better life.

What can START provide?

- Opportunities for ISU scholarships.
- Skills focused math and writing workshops.
- Career and educational counseling.
- Tutors and mentors to provide support.
- "College Success" preparation course.
- Emergency funds for health care, child care, transportation, and other needs.
- Workshops on the college application process, financial aid, and university resources.
- Backpacks filled with school supplies.

Staff and Instructors (p. 497)

START Program Staff and Instructors

Director

Brown, Cherisse, B.A. 2009, Idaho State University. (2018)

START Counselor

Oler, Shanon, A.S. 2008, Brigham Young University; B.S. 2013; M.Coun. 2015, Idaho State University. (2018)

Instructors

Allen, Donald, Math Instructor, Technical General Education and START. B.S. 1985; M.S. 1987, Idaho State University. (2006)

Serpa, Mike, Math Instructor, START. B.S. 1968; M.S. 1970, Idaho State University. (2009)

Clarke, Mike, Technology Instructor, Technical General Education and START. B.S. 1992 Calif. Polytechnic State University, M.B.A., 2008 University of Phoenix

Lion, Angela, Writing Instructor, START. B.S. Idaho State University

Student Resource Center

Overview

The Resource Center offers free peer tutoring, in either a group or one-on-one setting, to all College of Technology students. Instructional aides are available to facilitate student success in general education and program courses. Aides also provide help in building and improving student computer skills. Open group tutoring is available for math and writing. Math labs with an instructor are also available.

The Resource Center encourages students to seek help at the beginning of each academic semester to ensure success.

Contact Information

Roy F. Christensen Complex, Room 262
(208) 282-3208
<https://www.isu.edu/tech/tutoring/>

Coordinator

Lion, Angela, Coordinator, Student Resource Center. A.A.S. 1995, North Idaho College; Technical Certificate 2003, Boise State University; B.S. 2016, Idaho State University. (2019)

Academic Skills Courses (ACAD)

Courses

ACAD 1101 College Learning Strategies: 1 semester hour.

Covers learning strategies and study techniques (notetaking), textbook study, test preparation, memory, time management, etc. which promote academic success. Especially recommended for new students and re-entry students. F, S, Su

ACAD 1102 First Year Seminar: 1 semester hour.

Provides an extended orientation to the university for new students. Utilizes presenters from various campus support systems, collaborative learning activities, and written assignments which involve students in resources and activities on campus. F, S

ACAD 1103 College Learning Strategies for Mathematics: 1 semester hour.

Covers math anxiety, notetaking, homework, textbook study, learning styles, test preparation and problem solving. Concurrent registration in a mathematics course is required. F, S

ACAD 1104 First Year Transition: 2 semester hours.

Combines content of two courses: Study Skills and First Year Seminar. Introduces students to university culture and to learning strategies and study techniques which promote academic success. Especially recommended for entering students. F, S

ACAD 1105 Special Topics in First Year Seminar: 1 semester hour.

Provides an extended orientation to the university for new students while offering them an opportunity to explore a topic relevant to their majors. F

ACAD 1106 American Culture and the University Experience: 3 semester hours.

Study of American cultural values and expectations and how they manifest in the structure and functioning of a university. Emphasis on effective cross-cultural communication and navigating daily student tasks both on and off campus. Intended primarily for entering international students.

ACAD 1110 Money Management: 1 semester hour.

Covers basic Money Management techniques including: credit, saving, budgeting, debt, food dollars, financial goals, and investing. This is an eight-week course. F, S

ACAD 1111 Info Literacy and Inquiry: Locating, Evaluating & Integrating Information for Research: 3 semester hours.

Introduces students to fundamentals of information research in a university setting. The course will introduce the academic culture of ISU through research and university academic resources. The course will primarily deal with the level of inquiry and evidence expected of university students. Students will learn how to identify an information need, evaluate information discovered, and use information effectively and ethically. Satisfies Objective 8 of the General Education Requirements. F, S

Accounting (ACCT)

Courses

ACCT 2200 Personal Tax Planning: 3 semester hours.

Service course in federal taxation of individuals and small business, including tax-free income, legal tax deductions, inequities, tax planning opportunities, and individual tax return preparations. Not open to accounting majors. D

ACAD 1115 Information Research: 1 semester hour.

Develop life-long strategies for recognizing when you need information, locating it, evaluating it, and using it effectively and ethically. Explore a variety of tools and formats in order to find sources worth using/citing in support of academic projects. F, S

ACAD 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ACAD 2210 Peer Tutor Training: 1 semester hour.

Introduction to individual and small group tutoring with adult students. Emphasis on teaching strategies, communication skills, ethics, learning styles. Graded S/U. F, S

ACAD 2220 Peer Instruction Seminar: 2 semester hours.

Innovative leadership and teaching techniques for peer instructors who will collaborate with a faculty mentor in preparing for and teaching one section of ACAD 1104. Students will explore and co-create teaching, mentoring, and leadership strategies; teach four learning modules; and assist in coaching first-year students in academic and personal success strategies. PREREQ: Completion with a grade of B or higher of ACAD 1101, ACAD 1102, ACAD 1104, or ACAD 1105 (or equivalent college success course). COREQ: Peer Instructor in ACAD 1104. F, S

ACAD 3301 Beyond the Undergraduate Degree: 1 semester hour.

ACAD 3301 is reserved for upper-division TRiO SSS and/or McNair students. This course will engage students in active and intensive research on universities and disciplines in preparation for the graduate school admissions process. This course integrates students' intensive and individual research with their experience and instructors' input and guidance to create a compelling graduate admissions portfolio. PREREQ: Permission of Instructor required. F, S

ACAD 3310 Efficient Reading: 1 semester hour.

Emphasis on developing flexibility and acceleration of reading speed and refinement of comprehension skills through intensive practice of rapid reading and comprehension building techniques applied to fiction and textbook reading. PREREQ: Permission of instructor. Graded S/U. D

ACAD 4450 Peer Advising Seminar: 1-2 semester hours.

Supervised experience in assisting another student. Students meet out of class on a weekly contact basis. Course provides ongoing training for the peer advisors. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S

ACCT 2201 Principles of Accounting I: 3 semester hours.

Study of financial accounting processes, including analysis and recording of transactions, preparation of financial statements, and written communication of financial information. PREREQ: ENGL 1101 or ENGL 1101P, and MATH 1108 with a minimum grade of C-. F, S

ACCT 2202 Principles of Accounting II: 3 semester hours.

Understanding a business from an internal management perspective. Basic terminology, use of basic cost behavior concepts, cost analysis, and planning models to support a firm's decision making processes. Basic spreadsheet assignments using Excel. PREREQ: ACCT 2201 with a minimum grade of C- and MATH 1108 with a minimum grade of C-. F, S

ACCT 3303 Accounting Concepts: 3 semester hours.

Overview of the use of financial and managerial accounting information by internal and external decision makers; emphasis on the uses and limitations of accounting information with real-world emphasis where appropriate. Available to non-business majors only. D

ACCT 3323 Intermediate Accounting I: 3 semester hours.

Fundamental accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 2201, ECON 2201, and ECON 2202. PRE-or-COREQ: FIN 3315. F, S

ACCT 3324 Intermediate Accounting II: 3 semester hours.

Continuation of ACCT 3323. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 3323. F, S

ACCT 3331 Principles of Taxation I: 3 semester hours.

Study of federal income taxation and its application to individual taxpayers and business enterprises. Practical problems in making and filing returns. PREREQ: Admission to Accounting Major. F, S

ACCT 3332 Principles of Taxation II: 3 semester hours.

Continuation of ACCT 3331. Study of federal income taxation and its application to individual taxpayers and business enterprises. Practical problems with corporate tax filings. PREREQ: ACCT 3331 with a minimum grade of C-. D

ACCT 3341 Managerial and Cost Accounting: 3 semester hours.

A strategic approach to supporting managerial decision-making throughout an organization and across the value chain. Emphasizes the measurement, analysis, communication and control of financial and nonfinancial accounting information. PREREQ: ACCT 2202 and MGT 2217. PRE-or-COREQ: ENGL 3307 or ENGL 3308. F, S

ACCT 3360 Small Business Accounting: 3 semester hours.

Practical accounting issues related to starting and managing a small business, including taxes, system design and implementation, financial presentation and analysis, and personal financial planning. PREREQ: ACCT 2201 and ACCT 2202. D

ACCT 3393 Accounting Internship: 1-3 semester hours.

Internship program coordinated by faculty providing significant exposure to accounting issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

ACCT 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ACCT 4400 Managerial Tax Planning: 3 semester hours.

For prospective business managers, owners, or investors interested in important tax consequences of alternative financial transactions. PREREQ: ECON 2201, ECON 2202, and FIN 3315. D

ACCT 4403 Accounting Information Systems: 3 semester hours.

A strategic approach to the use of Accounting Information in an organization. Tools for documentation of business processes and database design are introduced. Focuses on primary business cycles, interrelationship between them, and impact on accounting information. Includes assessment of risks in information processing and reporting. PREREQ: INFO 3301. PREREQ or COREQ: ACCT 3323. F, S

ACCT 4425 Intermediate Accounting III: 3 semester hours.

Continuation of ACCT 3324. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 3324. D

ACCT 4431 Advanced Tax Concepts: 3 semester hours.

Specialized federal tax concepts for individuals, business, estates, and trusts. Elaborates on basic principles discussed in Principles of Taxation. PREREQ: ACCT 3331. D

ACCT 4433 Legal Environment of Accounting: 3 semester hours.

Study of legal issues facing accountants, including business law, forms of organizations, and regulatory requirements. PREREQ: ECON 2201, ECON 2202, AND MGT 2261. D

ACCT 4440 Accounting Practicum: 3 semester hours.

Advanced students apply accounting concepts to business issues through consulting projects under faculty supervision. Class discussions supplement field work. PREREQ: Accounting major; ACCT 3341. PREREQ or COREQ: ACCT 3331 and ACCT 4425. D

ACCT 4441 Management Control Systems: 3 semester hours.

Focuses on strategic and managerial evaluation and control systems using financial and nonfinancial accounting information. Prereq or senior standing and permission of instructor. PREREQ: ACCT 3341 or senior standing and permission of instructor. D

ACCT 4456 Auditing: 3 semester hours.

Concepts and practices of independent and internal auditing. Professional responsibilities, risk assessment, audit planning and reporting. PREREQ: ACCT 3324. PREREQ OR COREQ: ACCT 4403 or INFO 3307. F, S

ACCT 4457 Advanced Auditing: 3 semester hours.

Integration of financial statement auditing concepts in case discussions. Research into contemporary auditing literature. PREREQ: ACCT 4456. D

ACCT 4460 Governmental and Not for Profit Accounting: 3 semester hours.

Accounting and reporting principles, standards and procedures applicable to governmental units and not-for-profit institutions, i.e. universities, hospitals. Special consideration to financial management problems peculiar to the not-for-profit sector. PREREQ: ACCT 3324. D

ACCT 4461 Advanced Accounting: 3 semester hours.

Study of accounting problems arising in connection with partnerships, corporate affiliation; institutional, social, and fiduciary accounting; consignments; installment sales; and foreign exchange. PREREQ: ACCT 4425. D

ACCT 4470 Contemporary Issues in Managerial Accounting: 3 semester hours.

Contemporary topics and emerging issues in managerial accounting. This field is rapidly evolving to meet the needs of enterprises competing in a dynamic global environment. PREREQ: ACCT 3341. D

ACCT 4490 Financial Reporting and Statement Analysis: 3 semester hours.

A financial accounting capstone course focusing on statement analysis from the point of view of the many users of financial statements: investors, creditors, managers, auditors, analysts, regulators, and employees through the case analysis of actual companies' financial statements. PREREQ: ACCT 3324 or FIN 3315. D

ACCT 4491 Seminar in Accounting: 3 semester hours.

Reading, discussion, and preparation of reports on selected topics. Restricted to senior and graduate students in business who have the consent of the instructor. May be repeated for up to 6 credits with permission of the instructor. D

ACCT 4492 Special Problems in Accounting: 1-3 semester hours.

Research and reports on selected problems or topics in accounting. May be repeated for up to 9 credits with different content and permission of major advisor and the Dean. PREREQ: Senior or Graduate status in Business, and permission of the Dean. D

ACCT 4493 Advanced Accounting Internship: 1-3 semester hours.

A program of significant business experience coordinated by the faculty to provide broad exposure to accounting issues. May be repeated for up to 3 credits. F, S

ACCT 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Advanced Manufacturing Tech (ADMT)

Courses**ADMT 0101 Introduction to Machining: 3 semester hours.**

An introductory course in basic engine lathe and milling cutting operations performed on lathes, vertical mills, and computer controlled machine (CNC) tools. Basic programming of CNC machines will be introduced. D

ADMT 0102 Electronics Orientation: 3 semester hours.

Provides an introduction to computer operating systems and computer programs used in the analysis of electronic circuits. Also covers the use of electronics laboratory equipment such as digital multi-meters, oscilloscopes, function generators, breadboards and trainers used in the program. Basic soldering skills included. Laboratory exercises are included. D

ADMT 0103 Introduction to Advanced Manufacturing Welding Processes I: 3 semester hours.

Students will engage in hands-on welding practice in Gas Metal Arc Welding (GMAW) with short circuit and pulsed spray transfer in accordance with AWS D1.1 standards in preparation to enter the advanced manufacturing field. Fillets welds will be emphasized in preparation for groove welds. D

ADMT 0162 Industrial Health and Safety: 2 semester hours.

An overview of legislation, worker's compensation, hazard recognition, and safety planning. Includes basic engineering solutions. Addresses employee safety training requirements, recordkeeping, safety inspections, and program planning in the construction industry. Includes First Aid training and responder certification. F, D

ADMT 0220 Introduction to Programmable Logic Controllers: 3 semester hours.

Ladder format, I-O instructions, external devices, operating cycle, relays, timers, counters, sequencers, shift registers, analog applications, math blocks, and troubleshooting. F, S

ADMT 0221 CAD and CAM I Theory: 3 semester hours.

Introductory theory course in the utilization of CAD/CAM systems, F, S

ADMT 0242 Practical Process Measurements and Control: 2 semester hours.

Principles of temperature, pressure, strain, flow, force, and vibration measurements are covered. Techniques of computerized data acquisition, reduction, and statistical precision and tolerance are reviewed. Signal for local indications and process control operation are also covered. Lecture plus laboratory work in selected topics. PREREQ: ESET 0122 or permission of instructor. F, D.

ADMT 0243 Fluid and Pneumatic Power: 2 semester hours.

Review fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component, and terminology. F, D

ADMT 0243L Fluid and Pneumatic Power Lab: 2 semester hours.

Applications of fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. F, D

ADMT 0244 Advanced Manufacturing Welding Processes II: 3 semester hours.

Continuation of GMAW skill development with emphasis given to practice in pulsed-spray transfer mode. Guided practice will be provided in advanced manufacturing welding techniques and destructive testing will be conducted in accordance with AWS D1.1 standards as a capstone exercise for the course. D

ADMT 0245 Lean and Six Sigma: 3 semester hours.

This course provides a comprehensive overview of the Lean and Six Sigma methodologies including the Define, Measure, Analyze, Improve, and Control (DMAIC) process improvement paradigm, techniques, tools and metrics that are critical for process improvement success. The course will include demonstration and use of Lean and Six Sigma tools. D

ADMT 0246 Materials and Metallurgy: 2 semester hours.

Lecture, demonstration, and laboratory emphasizing the practical approach to basic principles of materials and metallurgical science, including behavior of materials under various conditions. S, D

Aircraft Maintenance Tech (AIRM)

Courses**AIRM 0100 Introduction to Aircraft Maintenance and Aviation Aerodynamics: 1 semester hour.**

Familiarization of aircraft structures and forces that act upon an airframe in flight. F

AIRM 0101 Mathematics: 3 semester hours.

Math topics relevant to technical drawings, aircraft weight and balance, area calculations, volumes, ratios/proportions, and calculating physical forces on an aircraft. F

AIRM 0104 Materials and Processes: 5 semester hours.

Includes the use of non-destructive testing, selection of hardware and materials for repair, repair fittings/fluid lines, cleaning and corrosion testing, testing/inspection of repairs, and shop/tool safety. F

AIRM 0107 Forms and Regulations: 3 semester hours.

Familiarization with new electronically-based FAA forms and regulations to include: maintenance forms, inspections, airworthiness criteria, repairs/alterations, Title 14 CFRs, section 43 (preventative maintenance and rebuilding) and airman certification. F

AIRM 0108 Basic Electricity: 3 semester hours.

Provides knowledge of electrical voltage, current, resistance, continuity, and includes practical application of theory to repair of aircraft. Blueprints, wiring diagrams, and diagnostic procedures will be included in the lab. S

AIRM 0109 Fluid Systems: 4 semester hours.

Identification, uses, and safe handling of all fluids related to aircraft maintenance through practical application. Emphasis will be given to hydraulics, fuels, plumbing, and instrumentation associated with fluids. F

AIRM 0110 Landing Gear Systems: 2 semester hours.

Operational theory, services, component inspection/replacement, and comprehensive maintenance of landing gear. S

AIRM 0111 Auxiliary Systems: 2 semester hours.

Cabin pressure/atmospheric controls, ice/rain/snow/fire protection systems, inspection, troubleshooting, and service of systems. F

AIRM 0112 Aircraft Electrical Systems: 4 semester hours.

Installation, trouble-shooting, and servicing of aircraft electrical systems to include: wiring, controls, switches, speed indicators, alternators, generators, and generators. Su

AIRM 0113 Rigging and Inspection: 3 semester hours.

Proper rigging for fixed and rotary winged aircraft followed by inspection in accordance with FAA conformity and airworthiness standards. F

AIRM 0114 Metallic Structures: 3 semester hours.

Combination of welding skill development in SMAW, GMAW, and GTAW processes combined with joining structural airframe materials using multiple types of rivets and fasteners. F

AIRM 0115 Aircraft Instruments, Communications, and Navigation: 2 semester hours.

Service and inspection of electronic flight control instruments, communications systems, and navigation components. S

AIRM 0116 Non-Metallic Structures: 4 semester hours.

All non-metallic components of the airframe are covered from wood to composites, fabric coverings, and painting. Emphasis will be given to inspection of repaired components and bonded structures to include fiberglass, plastic, composite, and honeycomb structures. F

AIRM 0221 Reciprocating Engine Theory and Practice: 3 semester hours.

Engine design, engine purpose, functions, diagnostics, maintenance, services, and troubleshooting. F

AIRM 0222 Advanced Reciprocating Engine Inspection and Maintenance: 3 semester hours.

Repair/overhaul using approved FAA procedures used to check engines for conformity to manufacturer's specifications, testing, and installation. F

AIRM 0223 Basic Turbine Engines: 4 semester hours.

Design, construction, operating principles, and materials used in turbine engines. Inspection, maintenance, and troubleshooting will be covered. S

AIRM 0224 Advanced Turbine Engines: 3 semester hours.

Testing of repaired engines to determine compliance with manufacturer's specifications, airworthiness, and phased inspections. S

AIRM 0225 Powerplant Lubrication Systems: 3 semester hours.

Components of engine lubrication, system diagnosis, troubleshooting, and repair of lubrication systems. Concept of pressure maintenance, lubrication specifications, and overall preventative maintenance will be included. F

AIRM 0227 Engine Fuel Metering Systems: 3 semester hours.

Design, purpose, and function of carburetors, fuel injection, and hydro-mechanical fuel systems for reciprocating and jet engines. F

AIRM 0228 Engine Ignition Systems: 4 semester hours.

Design, operation, and overhaul of magneto ignition and capacitor discharge ignition, and cooling systems. F

AIRM 0229 Engine Electrical and Instrument Systems: 4 semester hours.

Design, operation, and overhaul of the various electrical components and system indicators used on aircraft engines. S

AIRM 0230 Propeller Systems: 4 semester hours.

Propeller design, purpose, and components will be covered to include controllable, reversing, and feathering propellers. Service, maintenance, and installation will be covered. F

AIRM 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

AIRM 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. PREREQ: Permission of the instructor. D

American Studies (AMST)

Courses

AMST 1100 Introduction to American Language and Cultures: 3 semester hours.

Introduction to the forms, uses, and conventions of American English, with emphasis upon their cultural origins and functional varieties. Intended primarily for speakers of standard English as second language or second dialect. F, S

Anthropology (ANTH)

Courses

ANTH 1100 Discover Anthropology: 3 semester hours.

Introduction to fields of anthropology: physical anthropology, archaeology, linguistics, and ethnology, and to biological and cultural development of humans. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

ANTH 1102 Cultural Anthropology: 3 semester hours.

Explores cultural and biocultural behavior including cross cultural examination of enculturation, culture and personality, social organization, kinship and marriage, economics, politics, and ideology. Focus on cultural dynamics and contemporary issues in cultural anthropology. Partially satisfies Objective 6 of the General Education Requirements. F, S

ANTH 1107 Nature of Language: 3 semester hours.

General survey of structure and use of language. Topics include language origins, descriptive and historical linguistics, language and culture, and history of the English language. Equivalent to ENGL 1107 and LANG 1107. Satisfies Objective 7 of the General Education Requirements. S

ANTH 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ANTH 2201 Intermediate Shoshoni I: 4 semester hours.

Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni culture and builds on skills and knowledge gained in Elementary Shoshoni. Equivalent to SHOS 2201. PREREQ: ANTH/SHOS 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F

ANTH 2202 Intermediate Shoshoni II: 4 semester hours.

Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni culture and builds on skills and knowledge gained in Elementary Shoshoni. Cross-listed as SHOS 2202. PREREQ: ANTH 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

ANTH 2203 Discover Archaeology: 3 semester hours.

Introduction to basic methods, data and concepts of archaeology. F, S.

ANTH 2206 Indigenous Traditional Parenting: 3 semester hours.

Using the traditional knowledge of a Shoshoni language speaker, course is based in language and philosophy. Includes concepts of personhood, relations between parent and child, and the philosophy and use of childcare artifacts such as cradleboards. F

ANTH 2210 Conversational Shoshoni: 3 semester hours.

Refresher in Shoshoni words and phrases for those with previous exposure to the language and culture. S

ANTH 2212 Introduction to Folklore and Oral Tradition: 3 semester hours.

Folklore genres and folk groups, including introductory experience in folklore fieldwork focused on study of a genre or group of genres within verbal, customary, or material culture. Equivalent to ENGL 2212. Satisfies Objective 9 of the General Education Requirements. R1

ANTH 2230 Biological Anthropology: 3 semester hours.

Survey of human origins and biological variation through the study of adaptation, heredity, nonhuman primates, and the fossil record. Particular attention is paid to teaching students to apply the knowledge they have gained in the critical analysis of hypothetical frameworks common to the discipline. COREQ: ANTH 2230L. Partially satisfies Objective 5 of the General Education Requirements. F, S

ANTH 2230L Biological Anthropology Lab: 1 semester hour.

A lab section accompanying ANTH 2230. The lab section will focus on applying the knowledge gained in class with particular attention paid to applying the scientific method, critical thinking skills, data gathering, and analysis in a laboratory setting. COREQ: ANTH 2230 Partially satisfies Objective 5 of the General Education Requirements. F, S

ANTH 2233 Sex and Human Evolution: 3 semester hours.

Examination of worldwide variation in human sexuality from an anthropological and evolutionary perspective. D

ANTH 2237 Peoples and Cultures of the Old World: 3 semester hours.

Examination of human social and cultural diversity from different parts of the Old World. Topics include social structure, ecology, religion, politics, and language. May be repeated for up to 6 credits. Satisfies Objective 9 of the General Education Requirements. D

ANTH 2238 Peoples and Cultures of the New World: 3 semester hours.

Examination of the human, social, and cultural diversity from different parts of the New World. Topics include social structure, ecology, religion, politics, and language. May be repeated for up to 6 credits. Satisfies Objective 9 of the General Education Requirements. F, S

ANTH 2239 Latino Peoples and Cultures: 3 semester hours.

Examination of the human, social and cultural diversity among Latino people in different regions of the world. Topics include ethnicity, health and healing, social structure, ecology, religion, politics, prehistory and language. May be repeated for up to 6 credits. Satisfies Objective 9 of the General Education Requirements. F, S

ANTH 2258 Native American History: 3 semester hours.

Assesses diversity of North American natives, their life and thought; European impact; federal policy; and natives' response to continual cultural and physical assault. Equivalent to HIST 2258. D

ANTH 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ANTH 3301 Introduction to Shoshoni Folklore: 3 semester hours.

Survey of Shoshoni beliefs, customs, music, dance and various genres of oral tradition including tales, legends and myths. Includes the material manifestations of Shoshoni culture, including arts and crafts, costuming and folk technology. R1

ANTH 3367 Language in the United States: 3 semester hours.

A survey of the languages of the United States (American Indian languages, immigrant languages, and ethnic and regional varieties of English) along with the social and political aspects of American language use. Equivalent to ENGL 3367. PREREQ: ANTH/LANG/ENGL 1107. D

ANTH 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ANTH 4401 History and Theory of Sociocultural Anthropology: 3 semester hours.

Survey of the development of anthropology, various schools of thought, important personalities, and concepts that have contributed to anthropology over time. PREREQ: ANTH 1102 or permission of instructor. S

ANTH 4402 Ecological Anthropology: 3 semester hours.

Interaction of human bio-cultural systems and environment. Relations of natural resources, technological inventories, social organization, cultural categories. Native resource management practices. D

ANTH 4403 History and Theory of Archaeology: 3 semester hours.

History of the development of current methods and theory in archaeology and contemporary applications. PREREQ: ANTH 2203 or permission of instructor. F

ANTH 4404 Material Culture Analysis: 3 semester hours.

Methods and analyses used in archaeology and anthropology to understand the relationship between objects and culture. PREREQ: ANTH 2203 or permission of instructor. COREQ: ANTH 4405. D

ANTH 4405 Analytical Techniques Laboratory: 1 semester hour.

Analytical techniques laboratory to accompany ANTH 4404. Students will complete an assigned project in material culture analysis. PREREQ: ANTH 2203 or permission of instructor. COREQ: ANTH 4404. D

ANTH 4406 American Indian Health Issues: 3 semester hours.

An overview of health concerns, both current and past, of American Indian people, and the biological and sociocultural factors which influence health status. PREREQ: Permission of instructor. AF

ANTH 4407 Anthropology of Global Health: 3 semester hours.

How cultures define health and illness, and how these definitions ultimately influence the health status of individuals. F

ANTH 4408 Topics in Medical Anthropology: 3 semester hours.

Rotating topics, including international health issues, ethno-psychiatry, ethnomedicine and non-western healing systems. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

ANTH 4409 Clinical Medical Anthropology: 3 semester hours.

Explores the culture of biomedicine and the beliefs of patients. Topics include doctor/patient communication, cultural competency, cultural construction of risk, critiques of high-tech medicine and the international pharmaceutical industry. S

ANTH 4410 Cultural Resources Management: 3 semester hours.

Introduction to CRM reviewing historic preservation and federal legislation as they pertain to archaeology; practical experience in site survey and recording. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4411 Advanced Global Health: 3 semester hours.

This class uses medical anthropology theories and approaches to explore and analyze current global health issues. Emphasis is on trans-disciplinary approaches to understanding and problem solving. The class content reflects current, on-going global health crises. ANTH 2239 or ANTH 4407/ANTH 5507 are recommended but not required requisites. D

ANTH 4413 Old World Archaeology: 3 semester hours.

Prehistory of the Old World. Precise areal focus and periods may vary. Includes both theory and exposition. May be repeated for up to 6 credits with different course topics. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4414 New World Archaeology: 3 semester hours.

Examination of the prehistory of the Americas with emphasis on the North American Continent. May be repeated for up to 6 credits with different course topics. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4420 Applied Anthropology: 3 semester hours.

Introduction to the use of theories, methods, practices, and ethnographic findings of anthropology to solve human and environmental problems in academic, professional and global contexts. Special emphasis on future research and anthropological career trajectories. ANTH 1102 is recommended as a prerequisite. D

ANTH 4422 Globalization: 3 semester hours.

An examination of issues surrounding the intersection of anthropology and globalization. Emphasis on the social scientific study of the intensity of flows of capital, labor, commodities, and ideologies across national borders. Cultural, political, and economic connections and transformations are interpreted through an ethnographic lens. D

ANTH 4425 Food and Culture: 3 semester hours.

A global examination of the role of food in human culture as a necessity and symbolic reflection of cultural processes. Among topics considered are the ways food shapes identity, culinary meaning and belief, development and change of food habits through cultural interaction, identity, ritual uses of food, taboos, diet, health, and globalization, drawing on historical and modern case studies. D

ANTH 4426 Reading and Writing Ethnography: 3 semester hours.

This course explores both contemporary and historical ethnographic writings that are foundational to the discipline. Students also engage in learning the art of ethnographic writing by producing short pieces of their own during the semester. ANTH 1102 or ANTH 2239 recommended as a prerequisite. D

ANTH 4429 Survey of Primates: 3 semester hours.

Evolution and adaptations of fossil and extant non-human primates through their anatomy, behavioral ecology, and adaptive diversity, including a history of primate/human interactions. D

ANTH 4430 Human Evolution: 3 semester hours.

Examines relevant topical issues/problems in human evolution from a bioanthropological, ecological and demographic perspective, including paleoanthropology, evolutionary genetics, and the impact of health, nutrition and disease in human populations. May be repeated for up to 6 credits. PREREQ: ANTH 2230 or permission of instructor. D

ANTH 4431 Special Topics in Biological Anthropology: 3 semester hours.

Rotating review of topics dealing with issues in biological anthropology. May be repeated for up to 9 credits with different course topics. D

ANTH 4432 Human Osteology: 3 semester hours.

Provides a comprehensive, working knowledge of the human skeletal system presented in a laboratory context, including identification of individual bones, osteogenesis, pathologies, demography and the applications of knowledge and techniques in real world settings. PREREQ: ANTH 2230 or permission of instructor. D

ANTH 4434 Forensic Anthropology: 3 semester hours.

An introduction to forensic anthropology, an applied field within the larger discipline of biological anthropology, that analyzes human skeletal remains recovered from medico-legal contexts. The course will cover theoretical foundations and methodologies associated with forensic anthropology and will provide students with an informed appreciation for the field, as well as knowledge regarding the roles, responsibilities, and limitations of a forensic anthropologist. ANTH 2230 and ANTH 4432 recommended as prerequisites. D

ANTH 4436 Human Variation: 3 semester hours.

This senior level course is designed to investigate the biological basis of human diversity, the meanings we apply to race, and how race is perceived. Topics covered include the origin and mechanisms of human population variation, the nature of racial and racist studies in both historical and social contexts, and the question of race as a valid subject of scientific inquiry. D

ANTH 4438 Human Growth and Development: 3 semester hours.

This course covers the phenomenon of human growth, how growth and development can be measured, the molecular basis of growth, secular changes, genetic and environmental effects on growth, plasticity of the human phenotype, and applications to forensic age estimation in subadults. ANTH 2230 is recommended as a prerequisite. D

ANTH 4439 Principles of Taphonomy: 3 semester hours.

Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Equivalent to BIOL 4439 and GEOL 4439. PREREQ: Permission of instructor. AS

ANTH 4449 Qualitative Research Methods: 3 semester hours.

Study of the methods of field work and analysis in sociocultural anthropology; design of field studies; data types; techniques for collection and analysis of empirical data; report writing; experimental field projects. AF

ANTH 4450 Sociolinguistics: 3 semester hours.

Study of the patterned covariation of language and society, social dialects and social styles in language; problems of bilingualism, multilingualism, creoles and language uses. Equivalent to ENGL 4488. PREREQ: ANTH 1107, ENGL 2280 or ENGL 2281, or permission of instructor. F

ANTH 4452 American Indian Verbal Arts: 3 semester hours.

Analysis of current theories in the study of oral literature and ethnopoetics, focusing on the oral traditions of American Indians. PREREQ: ANTH 1107 or permission of instructor. AF

ANTH 4453 American Indian Literature: 3 semester hours.

Considers literary works by and about North American native people, especially in relationship to history, genre, and culture, including oral traditions. Equivalent to ENGL 4453. PREREQ: Objective 1. R2

ANTH 4454 Survey of American Indian Languages: 3 semester hours.

History of scholarship, analysis and classification of American Indian languages with emphasis on the languages of a particular phylum or geographical area. PREREQ: ANTH 1107 or permission of instructor. AF

ANTH 4455 Phonetics: 3 semester hours.

Introduction to descriptive linguistics focusing on the phonetics and phonetic phenomena of English and the other languages of the world. Extensive practice in perception and production of such phenomena. Equivalent to LANG 4455. PREREQ: ANTH/ENGL/LANG 1107. D

ANTH 4456 Phonology and Morphology: 3 semester hours.

Phonological theory and analysis; current theories in morphology. Phonological rules, representations, underlying forms, derivations, justifications of phonological analyses; morphological structure, derivational and inflectional morphology; relation of morphology to phonology. Equivalent to LANG 4456. PREREQ: ANTH/ENGL/LANG 1107. D

ANTH 4457 Survey of Indo European Languages: 3 semester hours.

Survey of Indo-European languages from ancient to modern times, their relationships to one another, and chief characteristics. Equivalent to LANG 4457. PREREQ: Completion of Objective 9. D

ANTH 4458 Historical Linguistics: 3 semester hours.

The methods and theories of the historical study of language. The comparative method, internal reconstruction, linguistic change over time, genetic typology of languages, and applications to prehistory. PREREQ: ANTH 1107. AS

ANTH 4459 Linguistic Field Methods: 3 semester hours.

Practical experience in linguistic analysis of a language using data elicited from a native speaker. May be repeated for up to 6 credits. PREREQ: ANTH 4456 or permission of instructor. D

ANTH 4463 Applied Statistics in Anthropology: 3 semester hours.

Practical applications of commonly used statistical analyses in anthropology. PREREQ: MATH 1153 or permission of instructor. AF

ANTH 4464 Analytical Methods: 4 semester hours.

Examination of and practical experience in applying advanced quantitative, qualitative, and laboratory methods and analyses. May be taken for up to 6 credits. PREREQ: ANTH 4463 or permission of instructor. D

ANTH 4472 Native American Arts: 3 semester hours.

Survey of Native American arts and industries, including prehistoric, ethnographic, and contemporary venues. PREREQ: ANTH 2238. D

ANTH 4474 Topics in Indian Education: 3 semester hours.

Rotating review of topics dealing with issues in Indian education. Consult current schedule of classes for exact course being taught. D

ANTH 4478 Federal Indian Laws: 3 semester hours.

Examination of tribal governments; their relationship with the federal government; sovereignty, jurisdictional conflicts over land and resources; and economic development. Equivalent to POLS 4478. D

ANTH 4479 Tribal Governments: 3 semester hours.

Complex legal position of Indian tribes as self-governing entities; principles of inherent powers; governmental organization, lawmaking, justice, relation to state and federal government. Equivalent to POLS 4479. D

ANTH 4480 Varieties of American English: 3 semester hours.

In-depth study of various dialects of American English, including historical evolution of different dialects, effects of migration on dialects, and influences of non-English immigrant languages on development of American English. Fieldwork studying the Snake River dialects of Idaho. Equivalent to ENGL 4480. PREREQ: ANTH/LANG/ENGL 1107. D

ANTH 4481 Topics in Sociocultural Anthropology: 3 semester hours.

Selected topics in social, political, economic, and religious systems/organization. Intensive survey of literature and analysis of relevant materials. See current schedule of classes for exact course titles. May be repeated for up to 9 credits with different course topics. PREREQ: Upper division status or permission of instructor. D

ANTH 4482 Independent Problems in Anthropology: 1-3 semester hours.

Investigation of an anthropological problem chosen by the student and approved by the staff. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

ANTH 4483 Field Research: 3 semester hours.

Practical experience in field research. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

ANTH 4484 Rotating Topics in Linguistics: 3 semester hours.

Rotating topics in different areas of linguistics and linguistic analysis. Consult current schedule of classes for exact course being taught. May be repeated for up to 6 credits. Equivalent to ENGL 4484 and LANG 4484. PREREQ: ANTH/ENGL/LANG 1107 or ENGL 2280 or ENGL 2281. D

ANTH 4485 Anthropology of War and Violence: 3 semester hours.

Survey of war and violence from its evolutionary foundations through its modern representations. History and ethnography of violent conflict around the world. PREREQ: Any upper division Social Science course. AS

ANTH 4486 Archaeology Field School: 1-6 semester hours.

Practical field and laboratory training in archaeological excavation techniques and methods of analysis. May be repeated for up to 6 credits. PREREQ: ANTH 2203 or permission of instructor. Su

ANTH 4487 Ethnographic Field School: 1-6 semester hours.

Supervised fieldwork in cultural anthropology in a given ethnographic setting where students and faculty work on a specific set of field problems. May be repeated for up to 6 credits. PREREQ: ANTH 1102 and ANTH 4449 or permission of instructor. D

ANTH 4489 Topics in American Indian Studies: 3 semester hours.

Rotating review of topics dealing with issues in American Indian studies. Consult current schedule of classes for exact course being taught. May be repeated with different content. D

ANTH 4490 Topics in Folklore: 3 semester hours.

Focused study of an issue in folkloristics or a particular genre of folklore, including history of the scholarship concerning that issue or genre. Rotating topics. May be repeated for up to 9 credits with different topics. Equivalent to ENGL 4490. R1

ANTH 4491 Archaeology Laboratory Analysis: 3 semester hours.

Directed analysis of archaeological remains and report writing. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S

ANTH 4492 Senior Seminar: 3 semester hours.

Integration and application of anthropological theories and methods to current research issues. PREREQ: ANTH 4401 or permission of instructor. S

ANTH 4494 Visual Anthropology: 3 semester hours.

Documentary and ethnographic filmmaking techniques including story structure, interviewing, audio and lighting, camera handling, composition, POV, and editing. Anthropological critiques of visual representation. Students create their own short film for a final project. May be repeated for up to 6 credits. F

ANTH 4495 Department Colloquium: 1 semester hour.

Presentations of current research issues in Anthropology by faculty and students.
S

ANTH 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Arabic (ARBC)

Courses

ARBC 1000A Guided Self Study: 1 semester hour.

Introduction to the Arabic language via a computerized program in the Language Laboratory. Students work at their own pace. F, S

ARBC 1000B Guided Self Study: 1 semester hour.

Continued practice in the Arabic language via a computerized program in the Language Laboratory. Students work at their own pace. PREREQ: ARBC 1000A. F, S

ARBC 1101 Elementary Arabic I: 4 semester hours.

Basic communication skills and grammatical structures of Arabic and introduction to cultures of Arabic-speaking countries. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

ARBC 1102 Elementary Arabic II: 4 semester hours.

Continuation of ARBC 1101. Practice in the language laboratory is required. PREREQ: ARBC 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. D

ARBC 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ARBC 2201 Intermediate Arabic I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Arabic. Contrastive study of culture as reflected in the Arabic language. Practice in the language laboratory is required. PREREQ: ARBC 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

ARBC 2202 Intermediate Arabic II: 4 semester hours.

Continuation of ARBC 2201. Practice in the language laboratory is required. PREREQ: ARBC 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

ARBC 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

ARBC 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Art (ART)

Courses

ART 1100 Introduction to Art: 3 semester hours.

A study of the elements of visual art, various media and techniques of artistic expression, with a brief historical overview. When appropriate, gallery tours and presentations by visiting artists will be included. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

ART 1101 Survey of Art History I: 3 semester hours.

Introductory global overview of visual art and architecture from prehistory to c. 1400. Partially satisfies Objective 4 of the General Education Requirements. F

ART 1102 Survey of Art History II: 3 semester hours.

Introductory global overview of visual art and architecture from the Renaissance to the present. Partially satisfies Objective 4 of the General Education Requirements. S

ART 1103 Creative Process: 3 semester hours.

A foundation course that deals with the "vocabulary" of design and the basic elements of art through a series of exercises in both black and white and color and in two and three dimensions. F, S

ART 1104 Creative Process: 3 semester hours.

Use of design vocabulary in the solution of specific 2 and 3 dimensional visual problems. Emphasis shifts to the thought-process - the formulation of ideas and solutions and the implementation of concept and craft. PREREQ: ART 1103. S

ART 1105 Drawing I: 3 semester hours.

Introduction to the fundamental skills of drawing, including composition, proportion, light, gesture, and black and white media. Students will begin to explore technical and conceptual approaches to drawing. May cover still life, landscape, figure drawing. Investigate artists and stylistic periods. F, S

ART 1106 Drawing II: 3 semester hours.

Continuation of ART 1105; refine skills and further explore technical and conceptual approaches to drawing. Introduction to color. Continue investigating historical and contemporary artists. PREREQ: ART 1105. F, S

ART 2210 History and Appreciation of Photography: 3 semester hours.

Discovery of the photographic process and its evolution to present. Analysis of many recognized masters of photography. Equivalent to CMP 2250. Partially satisfies Objective 4 of the General Education Requirements. F, S

ART 2231 Introduction to Printmaking: 3 semester hours.

Introduction to one of several major print media - etching, lithography, relief, collograph, monotype. Emphasis is on the learning of various technical processes and their incorporation in the development of the student's imagery. F, S

ART 2241 Introduction to Painting and Composition: 3 semester hours.

Introduction to methods, materials, and basic concepts of painting. F, S

ART 2243 Watercolor: 3 semester hours.

Beginning watercolor techniques, color theory, traditional and contemporary subject matter. One field trip required. D

ART 2251 Introduction to Metals and Jewelry: 3 semester hours.

Introduction to jewelry and metalsmithing in various metals with emphasis on design, basic technical processes and craftsmanship. F, S

ART 2261 Introduction to Fiber Media: 3 semester hours.

Introduction to surface design and weaving processes and materials, such as dyeing, basic weave structures, tapestry, basketry, and mixed media. F, S

ART 2271 Introduction to Ceramics: 3 semester hours.

Techniques of forming ceramic art by coiling, slab construction, and throwing on the potter's wheel, with emphasis on form, glazing, and decorative techniques. F, S, Su

ART 2281 Introduction to Sculpture: 3 semester hours.

Introduction to various methods and materials of sculpture construction, including additive, subtractive, manipulative, and substitution techniques. F, S, Su

ART 3301 Anatomy Drawing and Painting: 3 semester hours.

Course designed for intense explorations of human form using both drawing and painting media. Some studies in the historical position of the figure in art of the present and the past. PREREQ: ART 1105 and ART 1106 or permission of instructor. F

ART 3302 Advanced Anatomy Painting and Sculpture: 3 semester hours.

Further work with human form using two and three dimensional format. PREREQ: ART 3301 or permission of instructor. F

ART 3305 Intermediate Drawing I: 3 semester hours.

Course designed to expand the student's creative range in subject matter and technique. Include studies in the historical importance of the drawing in art. PREREQ: ART 1105 and ART 1106. S

ART 3306 Intermediate Drawing II: 3 semester hours.

Further exploration in drawing technique and theme. Also includes thorough experience with varieties of drawing media and papers, both traditional and contemporary. PREREQ: ART 3305. S

ART 3310 Professional Practice and Display: 3 semester hours.

Course will prepare the student to present work professionally, and to explore employment possibilities, grant writing, gallery maintenance, business practices, and survival skills. PREREQ: 60 credits and declared Art major. F

ART 3323 19th c European Art: 3 semester hours.

Study of visual art in Western Europe from the French Revolution to the emergence of the avant-garde. D

ART 3324 American Art: 3 semester hours.

Study of visual art in North America from pre-contact indigenous cultures to the present. D

ART 3330 3D Modeling and Design: 3 semester hours.

A studio course in the application and technique of three-dimensional (3D) digital modeling utilizing industry standard software. Topics include the creation and modification of 3D forms, surface mapping, rendering and 3D printing. Equivalent to CMP 3332. F

ART 3331 Intermediate Printmaking: 3 semester hours.

Individual work within the media of one's experience or introduction to a new print medium. Students will be exposed to new techniques and processes including those used in color printing. PREREQ: ART 2231. F, S

ART 3332 Intermediate Printmaking: 3 semester hours.

Individual work within the media of one's experience or introduction to a new print medium. Students will be exposed to new techniques and processes including those used in color printing. PREREQ: ART 3331. F, S

ART 3333 Virtual Reality Environments: 3 semester hours.

A studio course in the application and technique of creating Virtual Reality Environments utilizing the Unreal Game Engine. Students will work as a team and explore the process of creating and editing interactive 3D content. Equivalent to CMP 3333. PREREQ: Instructor Approval. S

ART 3334 Secondary Art School Methods: 3 semester hours.

Practical techniques and philosophical approaches to teaching art in the middle and high schools. PREREQ: 12 hours of studio classes. D

ART 3341 Intermediate Painting and Composition I: 3 semester hours.

Utilize technical skills from ART 2241. Emphasis on work ethic and conceptual investigation. Actively research historical and contemporary artists. PREREQ: ART 2241. F, S

ART 3342 Intermediate Painting and Composition II: 3 semester hours.

Complete independent projects. Equal emphasis placed on conceptual and technical development. High level of work ethic and craftsmanship expected. Actively research historical and contemporary artists. PREREQ: ART 3341. F, S

ART 3343 Intermediate Watercolor: 3 semester hours.

Further experiments in opaque and transparent media, variety of supports and styles. One field trip required. PREREQ: ART 2243. D

ART 3351 Intermediate Metals: 3 semester hours.

Experimental work. Individual projects may include stone settings, enameling, angle raising, procedure for hinges, anodizing, repousse and riveting. PREREQ: ART 2251. F, S

ART 3352 Intermediate Metals: 3 semester hours.

Experimental work. Individual projects may include stone settings, enameling, angle raising, procedure for hinges, anodizing, repousse and riveting. PREREQ: ART 3351. F, S

ART 3361 Intermediate Fiber Media: 3 semester hours.

Further exploration of surface design and weaving as techniques for art making. The curriculum rotates study topics and includes on-loom and off-loom fiber media techniques, such as felt making, dyeing processes, mixed media, and installation. F, S

ART 3362 Intermediate Fiber Media: 3 semester hours.

Further exploration of surface design and weaving as techniques for art making. The curriculum rotates study topics and includes on-loom and off-loom fiber media techniques, such as felt making, dyeing processes, mixed media, and installation. F, S

ART 3371 Intermediate Ceramics: 3 semester hours.

Individual work. Special projects may include glaze and clay technology, history of ceramic art, work on the potter's wheel and forming techniques. PREREQ: ART 2271. F, S, Su

ART 3372 Intermediate Ceramics: 3 semester hours.

Individual work. Special projects may include glaze and clay technology, history of ceramic art, work on the potter's wheel and forming techniques. PREREQ: ART 3371. F, S, Su

ART 3381 Intermediate Sculpture: 3 semester hours.

Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 2281. F, S, Su

ART 3382 Intermediate Sculpture: 3 semester hours.

Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 3381. F, S, Su

ART 3385 Individual Projects: 1-3 semester hours.

Supervised research, experimentation, or creative work in an art history subject or studio area not listed in the regular offerings. Course may be repeated for up to 6 credits. PREREQ: Permission of instructor or department chair. F, S, Su

ART 3391 Papermaking: 3 semester hours.

History, fundamental techniques of Western/Eastern papermaking based on traditional methods. Traditional sheet forming, paper chemistry, pulp preparation, types of nonadhesive book structures, history and terminology of book binding. PREREQ: 12 hours studio or permission of instructor. F

ART 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ART 4401 Advanced Study in Drawing: 3 semester hours.

Individualized course-of-study designed to address drawing-specific concerns for the advanced art student. Involves exploration of technical, material, and/or conceptual possibilities inherent to drawing as an independent medium. PREREQ: ART 3306. F, S

ART 4424 Modern Art: 3 semester hours.

Study of art and art theories from the emergence of Realism to WWII (1840-1940), focusing largely on Western Europe and the United States. F

ART 4425 Contemporary Art: 3 semester hours.

Study of art and art theories from WWII to the present. PREREQ: ART 1102 or permission of instructor. S

ART 4426 Special Topics in Art History: 3 semester hours.

Reading and discussion on a significant movement, theme, theory, or geographic area in art history. D

ART 4427 Theories and Methodologies: 3 semester hours.

Study of art historical methods and theories of art, including but not limited to formalism, Marxism, psychoanalysis, semiotics, feminism, and postcolonialism. PREREQ: ART 1102. D

ART 4431 Advanced Printmaking: 3 semester hours.

Advanced work in printmaking. Choice of medium. PREREQ: ART 3332. F, S

ART 4432 Advanced Printmaking: 3 semester hours.

Advanced work in printmaking. Choice of medium. PREREQ: ART 4431. F, S

ART 4435 Narrative and Print: 3 semester hours.

Exploration and reconsideration of conventional concepts of what makes a book, both in terms of narrative structure and physical form. Focus on examination of familiar forms in new ways to help students learn to approach all multi-page projects from fresh and new angles. D

ART 4441 Advanced Painting and Composition I: 3 semester hours.

Special projects, individual experimentation and independent thinking. Continued emphasis placed on conceptual and technical nature of work. High level of work ethic and craftsmanship expected. Frequent readings assigned. Continue artist research. PREREQ: ART 3342. F, S

ART 4442 Advanced Painting and Composition II: 3 semester hours.

Special projects, individual experimentation, and independent thinking. Develop a thorough understanding of conceptual and technical nature of work. High level of work ethic and craftsmanship expected. Frequent readings assigned. Continue artist research. PREREQ: ART 4441. F, S

ART 4451 Advanced Metals: 3 semester hours.

Experimental work. Individual projects may include plastics, electroplating, electroforming, advanced fabrication or raising techniques. PREREQ: ART 3352. F, S

ART 4452 Advanced Metals: 3 semester hours.

Experimental work. Individual projects may include plastics, electroplating, electroforming, advanced fabrication or raising techniques. PREREQ: ART 4451. F, S

ART 4461 Advanced Fiber Media: 3 semester hours.

Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 3362. F, S

ART 4462 Advanced Fiber Media: 3 semester hours.

Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 4461. F, S

ART 4471 Advanced Ceramics: 3 semester hours.

Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 3371 or ART 3372. F, S, Su

ART 4472 Advanced Ceramics: 3 semester hours.

Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 3371 or ART 3372. F, S, Su

ART 4473 Clay and Glaze Calculation: 3 semester hours.

Research in clay bodies and glaze calculation. Development of formulas for stoneware, whiteware and porcelain. Simple to complex glaze calculation. Historical use of clays and glazes. PREREQ: ART 2271 or permission of instructor. F, S, Su

ART 4474 Kiln Construction: 3 semester hours.

Historical use and structure of all types of kilns. Design and construction principles of kilns, burner systems, and safety methodology. PREREQ: ART 3371 or permission of instructor. D

ART 4481 Advanced Sculpture: 3 semester hours.

Experimental work with an emphasis on scale and environmental problems. PREREQ: ART 3382. F, S, Su

ART 4482 Advanced Sculpture: 3 semester hours.

Experimental work with an emphasis on scale and environmental problems. PREREQ: ART 4481. F, S, Su

ART 4490 Experimental Studio: 3 semester hours.

Class work will be in two and three dimension, conceptual art, environmental art, performance and multimedia modes. PREREQ: Three semesters of studio or permission of instructor. D

ART 4491 Advanced Papermaking: 3 semester hours.

Further development of topics from ART 3391. PREREQ: ART 3391 or permission of instructor. F

ART 4494 Senior Presentation: 1 semester hour.

A retrospective exhibit of the student's best work. This includes techniques of professional presentation, posters and publicity. To be completed under advisor and/or director, Davis Gallery. F, S

ART 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Auto Collision Repair (ACRR)

Courses

ACRR 0101 Introduction to Collision Repair Safety: 2 semester hours.

The orientation and application of tool safety, shop practices, and shop equipment theories. Industry needs and standards will be addressed. Students will gain knowledge of proper use of equipment, tools, and safety that meet or exceed industry standards. F, S

ACRR 0102 Introduction to Welding for Collision Repair: 1 semester hour.

Orientation to mild steel, automotive sheet metals, basic oxy-acetylene, MIG welding, plasma air arc cutting, equipment, tools, and safety. F, S

ACRR 0103 Introduction to Welding for Collision Repair Lab: 2 semester hours.

Prepare students to perform basic welding processes and techniques including the application of mild steel, wire feed welding, automotive sheet metals, basic oxy-acetylene, MIG welding, and plasma air arc cutting. Students will gain knowledge and proper use of equipment, tools, and safety that meet or exceed industry standards. F, S

ACRR 0104 Fundamentals of Auto Collision Repair and Refinishing: 3 semester hours.

Fundamentals of basic metal finishing including the use of plastic filler. Safety rules and procedures will be emphasized. "Right to Know" laws, OSHA guidelines, DEQ rules, and safe handling of hazardous materials are stressed. F, S

ACRR 0105 Detailing and Polishing: 2 semester hours.

This course covers the practical application of detailing and polishing fundamentals including that of pre-wash, paint defect identification, exterior polishing, interior renovation, environmental hazards, proper use of detailing equipment, and PPE. Gain knowledge of general safety and health practices, including the use of chemicals and detailing products. F, S

ACRR 0106 Minor Collision Repair Theory: 1 semester hour.

Basic theory in metal finishing and minor body repair. This includes straightening and prepping sheet metals, the proper use of plastic body fillers, abrasives, sanding techniques, and air tools. Remove and install necessary trim and hardware to facilitate repair procedures. F, S

ACRR 0107 Minor Collision Repair Lab: 2 semester hours.

Practical application of metal finishing and minor body repair. This includes straightening and prepping sheet metals, the proper use of plastic body fillers, abrasives, sanding techniques, and air tools. Remove and install necessary trim and hardware to facilitate repair procedures. F, S

ACRR 0108 Fundamentals of Auto Collision Repair and Refinishing Lab: 3 semester hours.

Focus will be given to completing practical exercises in refinishing single or multiple vehicle components and customer vehicles in a lab setting. F, S

ACRR 0160 Advanced Refinishing I: 8 semester hours.

Advanced technical refinishing terms will be introduced and explained along with Environmental Protection Agency laws. High Volume Low Pressure application will be used. Emphasis on detailing a vehicle. System application will be emphasized. PREREQ: ACRR 0147. F, S

ACRR 0161 Advanced Refinishing II: 8 semester hours.

Live-work projects using single and two stage painting processes and tri-coating with a high volume, low pressure application system. PREREQ: ACRR 0160. F, S

ACRR 0162 Advanced Refinishing III: 8 semester hours.

Tri-coating, striping, and variation of painting applications. Troubleshooting and corrective actions for problems encountered when painting. PREREQ: ACRR 0161. F, S

ACRR 0210 Advanced Collision Repair I: 8 semester hours.

Estimating, glass removal and replacement, frame repair and frame rack setup, body panel and part replacement and alignment, welding techniques, and corrosion protection. PREREQ: ACRR 0101, ACRR 0102, ACRR 0103, ACRR 0104, ACRR 0105, ACRR 0106, ACRR 0107, ACRR 0108. F, S

ACRR 0211 Advanced Collision Repair II: 8 semester hours.

Frame and unibody repair and alignment. Steering and alignment systems diagnosis and repair. Sectioning, sheet molded compounds, fiberglass, and plastic repair. PREREQ: ACRR 0210. F, S

ACRR 0212 Advanced Collision Repair III: 8 semester hours.

Automotive electrical circuitry, window and water leak diagnosis, air bags, and seatbelts. PREREQ: ACRR 0210. F, S

ACRR 0252 Internship: 8 semester hours.

An opportunity for the student to receive on-the-job work experience with an automotive body business in either collision repair or refinishing. PREREQ: Permission of the instructor. F, S

ACRR 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

ACRR 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

Automotive Tech (AUTM)

Courses

AUTM 0100E Electrical Systems: 3 semester hours.

Basic electrical theory, wiring diagrams, test equipment, diagnosis, repair, replacement of electrical components; including battery, starting, charging, and lighting systems. Upon successful completion, the student will be able to properly use wiring diagrams and test equipment to diagnose, test, and repair wiring and lighting in accordance with Automotive Service Excellence (ASE) standards. F

AUTM 0100M Engine Repair: 3 semester hours.

Theory, construction, inspection, diagnosis, and repair on internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon successful completion, student will be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures and service information in accordance with Automotive Service Excellence (ASE) standards. F

AUTM 0100S Automotive Technology Fundamentals and Safety: 2 semester hours.

An introduction to the automotive industry including safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities and basic automotive maintenance. F

AUTM 0101 Advanced Engine Mechanical and Repair: 4 semester hours.

In-depth examination of engine mechanical operation, engine rebuilding, and technical measurements of engine components for proper fit. Engine machining process, engine installation, and customer invoicing will be covered. Students will be competent in over-head cam service, timing belt removal/replacement and adjustment, engine lubrication, and cooling systems, and valve adjustment to ASE standards. PREREQ: AUTM 0100M. S

AUTM 0102 Automotive Electrical: 8 semester hours.

Electronic theory, wiring diagrams, test equipment, and diagnosis of electrical/electronic devices and their function in modern automobiles to include networking and module communications through the use of labsopes and other modern diagnostic methods in all maintenance that requires testing, calibration, and repair. COREQ: AUTM 0100E, AUTM 0100M, AUTM 0100S. F

AUTM 0103 Engine Performance: 8 semester hours.

An overview of engine operation, ignition components and systems, fuel delivery, injection components and emission control devices, including networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting using labsopes and other diagnostic equipment. COREQ: AUTM 0107, AUTM 0108. F

AUTM 0105 Steering/Suspension: 4 semester hours.

Principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students will be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0101, AUTM 0106 and AUTM 0120. S

AUTM 0106 Brakes: 4 semester hours.

Principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydraulic, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students will be able to diagnose, service, and repair various automotive braking systems in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0101, AUTM 0105, AUTM 0120. S

AUTM 0107 Manual Drivetrains and Axles: 4 semester hours.

Operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students will be able to explain operational theory, diagnose and repair manual drive trains in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0103, AUTM 0108. F

AUTM 0108 Automatic Transmissions/Transaxles: 4 semester hours.

Operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students will be able to explain operational theory, diagnose and repair manual drive trains in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0103 and AUTM 0107. F

AUTM 0109 Live Work: 8 semester hours.

Work on customer-owned, current, and late model vehicles in a shop environment. Prepares students for ASE certification via work on customer-owned, current, and late model vehicles in a shop environment. Shop management and customer relations. PREPREQ: AUTM 0100E, AUTM 0100M, AUTM 0100S, AUTM 0101, AUTM 0102, AUTM 0105, AUTM 0106, AUTM 0120. S, Su

AUTM 0120 Automotive Heating and Air Conditioning: 4 semester hours.

Provides a study of refrigeration systems, temperature controls, and automotive HVAC vacuum/electrical circuits. Emphasis placed on environmental impact of refrigerants, environmentally safe refrigerant technology and applicable legislation. Laboratory experiences provide the opportunity to study the use of air conditioning system diagnostic tools, refrigerant recovery/recycling equipment, and diagnostic and repair services in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0101, AUTM 0105 and AUTM 0106. S

AUTM 0198 Special Topics: 1-8 semester hours.

Addresses the specific needs of individuals, enabling students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program's full-time pre-employment curriculum. PREREQ: Permission of instructor. D

AUTM 0201 Advanced Electrical Systems: 8 semester hours.

Multiplexing communication protocols, lab scoping senders, controls, actuators, pumps, and motors. Use electronic chassis controls to diagnose vehicle traction and stability control, emission control systems, electronic shift, and immobilizer systems; conduct drivability tests on a chassis dynamometer, and use hand held diagnostic tools. S, Su

AUTM 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

AUTM 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

Biomedical and Pharmaceutical Sciences (PSCI)

Courses

PSCI 2205 Drugs in Society: 2 semester hours.

Survey of the response of people to drugs and chemicals. This course is for non-pharmacy majors. F, S

PSCI 3301 Introduction to Pharmacology: 3 semester hours.

Overview of basic pharmacological principles and drug classes emphasizing organ systems and mechanisms of action. PREREQ: BIOL 1102, CHEM 1112, and CHEM 1112L. F

PSCI 3308 Drug Discovery: 2 semester hours.

Overview of the new drug discovery process including drug screening and the development of targeted therapies. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 3318 Basic and Applied Pharmacology for Physical Therapists: 2 semester hours.

Introduction to the basic concepts of pharmacology. Discussion of pharmacologic therapy of problems affecting the musculoskeletal and connective tissues, including pain management. PREREQ: Admitted to Physical Therapy program. S

PSCI 3353 Introduction to Methods in Pharmaceutical Sciences: 2 semester hours.

Review of in vitro and in vivo methodology for the study of various aspects of pharmaceutical sciences. PREREQ: BIOL 1102, CHEM 1112, and CHEM 1112L. S

PSCI 3368 Introduction to Toxicology: 3 semester hours.

Review of environmental and clinical poisons with emphasis on mechanisms of toxicity, causes, detection and treatment. PREREQ: PSCI 3301 or permission of instructor. F

PSCI 4401 Drug Abuse: 2 semester hours.

A discussion of pharmacological and societal aspects of drugs of abuse. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4402 Immunopharmacology: 2 semester hours.

Examination of drugs affecting the immune system. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4403 Infectious Diseases and Natural Products: 3 semester hours.

Review of antimicrobial drugs including antibiotics, antifungal and antiviral drugs. Review of pharmacology and medicinal chemistry of drugs derived from environmental sources. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4404 Pulmonary and Cardiac Pharmacology: 3 semester hours.

Review of the pulmonary and cardiovascular systems including major drug classes affecting these systems. PREREQ: PSCI 3301. F

PSCI 4405 Behavioral Pharmacology: 2 semester hours.

Review of drugs effecting behavioral processes including emotion, learning, memory, and cognition. PREREQ: PSCI 3301. Permission of instructor. S

PSCI 4406 Introduction to Endocrinology: 2 semester hours.

Review of the endocrine systems and drugs used for endocrine based disorders. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4407 Pharmacogenomics: 2 semester hours.

Review of contemporary genetic approaches in the understanding of disease and the development of pharmacological agents to treat disease. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4408 Medicinal Chemistry: 3 semester hours.

A study of the general chemistry, chemical properties and relationships between chemical structures and pharmacological activities of organic and inorganic medicinal agents PREREQ: PSCI 3301 or permission of instructor. F

PSCI 4430 Psychopharmacology: 3 semester hours.

This course will cover the mechanisms of action of psychoactive drugs, including drugs used in the treatment of psychopathological disorders and drugs of abuse. PREREQ: Permission of instructor. F

PSCI 4431 Cancer Biology: 3 semester hours.

Study of growth control, carcinogenesis, receptors, oncogenes, signal transduction pathways in cancer, metastasis, angiogenesis, invasion and tumor markers. PREREQ: Permission of instructor. F

PSCI 4432 Anti-cancer Drugs: 3 semester hours.

Introduction to conventional chemotherapeutic drugs, novel chemotherapeutic drugs in clinical trials and cancer drug discovery. PREREQ: Permission of instructor. F

PSCI 4433 Physical Pharmaceutics: 3 semester hours.

Illustrates the basic concepts of physical pharmaceutics, including physicochemical and biopharmaceutical principles applicable to formulation design, drug disposition and calculations. PREREQ: Permission of instructor. S

PSCI 4434 Pharmacokinetics: 3 semester hours.

Illustrates the principles of pharmacokinetics and dosing regimen design. PREREQ: Permission of instructor. F

PSCI 4435 Drug Delivery Systems: 3 semester hours.

Illustrates principles, processes, and techniques applied to drug delivery systems, preparation, use and assessment of pharmaceutical dosage forms and emphasizes formulation design, dose regimens, and specific compounding techniques. PREREQ: Permission of instructor. S

PSCI 4436 Special Topics in Oncology: 1 semester hour.

Study of current topics in cancer research and novel approaches to understand and treat cancer. PREREQ: Permission of instructor. S

PSCI 4437 Nuclear Pharmacy: 2 semester hours.

Basic principles of radiation physics, preparation of radiopharmaceuticals, operator safety, quality control, laboratory design, radiation monitoring equipment, clinical aspects, therapeutic and diagnostic applications of radiopharmaceuticals and diagnostic agents in pharmacy practice. PREREQ: Permission of instructor. F

PSCI 4438 Pharmaceutical Science Research: 2 semester hours.

Hands on research experience under the direction of pharmaceutical science faculty including the completion of experiments and analyses of data. May be repeated up to 4 times. PREREQ: Permission of instructor. F, S

PSCI 4439 Drug Delivery in the 21st Century: 2 semester hours.

State-of-the-art information on the science and technology of novel drug delivery systems, controlled release formulations and pharmaceutical proteins, vaccines and anti-sense drugs. PREREQ: Permission of instructor. F

PSCI 4440 Fundamentals of Nanoscience: 3 semester hours.

Introduction to the fundamental properties of nanomaterials. Emphasis on the application of nanomaterials in biological systems and their impact on society, and understanding nanomaterials for their future in medicine. PREREQ: Permission of instructor. F

PSCI 4441 Diabetes for Health Sciences: 2 semester hours.

Discussion of diabetes: types, development, monitoring and patient related issues. Topics include basic science and patient applications. Discussions based on student interest and background. PREREQ: Permission of instructor. S

PSCI 4455 Medicinal Chemistry: 3 semester hours.

A study of the general chemistry, chemical properties and relationships between chemical structures and pharmacological activities of organic and inorganic medicinal agents. PREREQ: Permission of instructor. F

PSCI 4457 Clinical Chemistry: 2 semester hours.

The influence of disease states on the results of laboratory diagnostic procedures; the effects of drug therapy on diagnostic tests. PREREQ: Second year professional status in Pharm. D. program. F

PSCI 4462 Neuropharmacology: 3 semester hours.

The molecular basis of drug action in the central nervous system including nerve excitation, molecular properties of ion channels, neuropharmacological methods, pharmacology of ethanol and the mechanisms in tolerance and physical dependence. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4480 Health Issues of Drug Abuse: 2 semester hours.

In-depth discussion of pharmacological and societal aspects of drug abuse, including the risk for harm from both legal and illegal substances. Emphasis on treatment options. D.

PSCI 4482 Special Topics in Pharmaceutical Sciences: 1-3 semester hours.

An examination of selected topics in the pharmaceutical sciences. May be repeated up to 4 times. PREREQ: Permission of instructor. F, S

PSCI 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PSCI 9937 Professional Student Seminar in Pharmaceutical Sciences: 1 semester hour.

Review of current research and literature in the fields of pharmacy. Oral and written reports are required. May be repeated. Restricted to Pharm.D. program. S

PSCI 9938 Independent Problems in Pharmaceutical Sciences: 1-4 semester hours.

Advanced students are assigned special laboratory studies on the basis of interest and previous preparation. May be repeated. Restricted to PHARM.D. program. F, S

PSCI 9992 Topics in Pharmaceutical Sciences: 1-4 semester hours.

An examination of selected topics in pharmaceutical sciences. Restricted to PHARM.D. program. D

Biological Sci (BIOL)

Courses

BIOL 1100 Concepts of Biology: 4 semester hours.

Considers biological issues related to human environment, population, inheritance, and basic concepts of resource conservation. Historical, contemporary and future implications of these issues are discussed. COREQ: BIOL 1100L. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

BIOL 1100L Concepts of Biology Lab: 0 semester hours.

Assignments to apply principles from BIOL 1100. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

BIOL 1101 Biology I: 4 semester hours.

Major concepts in biology with an emphasis on the acquisition of new knowledge, cell structure and function, principles of inheritance, and evolution. This course is for students majoring in the biological sciences. PREREQ: Student must be able to place into MATH 1108. COREQ: BIOL 1101L. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

BIOL 1101L Biology I Lab: 0 semester hours.

Assignments to apply principles from BIOL 1101. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

BIOL 1102 Biology II: 4 semester hours.

Major concepts in biology with an emphasis on the development of diversity, plant and animal structure and function, ecology, and behavior. This course is for students majoring in the biological sciences. PREREQ: BIOL 1101. COREQ: BIOL 1102L. F, S

BIOL 1102L Biology II Lab: 0 semester hours.

Assignments to apply principles from BIOL 1102. F, S

BIOL 1192 Careers in Ecology and Conservation Biology: 1 semester hour.

Designed to acquaint majors or interested students with the field of conservation and to provide opportunities for interaction among students, faculty and professionals. S

BIOL 2206 Cell Biology: 3 semester hours.

Study of cell structure and function, and experimental techniques used to study cells. Topics include cellular chemistry, expression of genetic information, protein sorting, reproduction, the cytoskeleton, signaling and cancer. PREREQ: BIOL 1101, BIOL 1102, CHEM 1111, and CHEM 1111L. PREREQ or COREQ: CHEM 1112 and CHEM 1112L. COREQ: BIOL 2207 for majors requiring BIOL 2207. F, S

BIOL 2207 Cell Biology Laboratory: 1 semester hour.

Experiments applying selected concepts from BIOL 2206. PRE-or-COREQ: BIOL 2206. F, S

BIOL 2209 General Ecology: 4 semester hours.

Organisms in relation to their environment. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 2209L. F, S

BIOL 2209L General Ecology Laboratory: 0 semester hours.

Assignments to apply principles from BIOL 2209. F, S

BIOL 2213 Fall Flora: 2 semester hours.

For teachers and others who wish to become acquainted with Idaho plants. Common names are emphasized. Common cultivated and native plants are collected and identified. F

BIOL 2214 Spring Flora: 2 semester hours.

For those who wish to become acquainted with the common names and habitat of edible, poisonous, native, and cultivated springtime plants of southeast Idaho. Identification and collection techniques are emphasized. S

BIOL 2221 Introductory Microbiology: 3 semester hours.

Essential principles of microbiology and an introduction to various applications of economic importance. No credit if taken after BIOL 2235. PREREQ: CHEM 1101, or CHEM 1111 and CHEM 1111L; BIOL 1101, or BIOL 2227 and BIOL 2227L. PRE-or-COREQ: BIOL 2221L. F, S, Su.

BIOL 2221L Introductory Microbiology Laboratory: 1 semester hour.

PREREQ or COREQ: BIOL 2221. F, S, Su.

BIOL 2227 Human Anatomy and Physiology I: 3 semester hours.

This course is the first semester of an integrated sequence in anatomy and physiology. This course will provide a basic knowledge for students majoring in the health professions. By the end of the two semester sequence, students will have knowledge of the shape and structure of body parts, function of cells, organs and systems of the body. PREREQ: Student must be able to place into MATH 1108. PRE-or-COREQ: BIOL 2227L. Partially satisfies Objective 5 of the General Education Requirements. F, S

BIOL 2227L Human Anatomy and Physiology I Lab: 1 semester hour.

This course is the first semester of an integrated sequence in anatomy and physiology. This course will provide a basic knowledge for students majoring in the health professions. By the end of the two semester sequence, students will have knowledge of the shape and structure of body parts, function of cells, organs and systems of the body. PREREQ: Student must be able to place into MATH 1108. PRE-or-COREQ: BIOL 2227. Partially satisfies Objective 5 of the General Education Requirements. F, S

BIOL 2228 Human Anatomy and Physiology 2: 3 semester hours.

This course is the second semester of an integrated sequence in anatomy and physiology. This course will provide a basic knowledge for students majoring in the health professions. By the end of the two semester sequence, students will have knowledge of the shape and structure of body parts, function of cells, organs and systems of the body. PREREQ: BIOL 2227. PRE-or-COREQ: BIOL 2228L. F, S

BIOL 2228L Human Anatomy and Physiology 2 Lab: 1 semester hour.

This course is the second semester of an integrated sequence in anatomy and physiology. This course will provide a basic knowledge for students majoring in the health professions. By the end of the two semester sequence, students will have knowledge of the shape and structure of body parts, function of cells, organs and systems of the body. PRE-or-COREQ: BIOL 2228. F, S

BIOL 2230 Bioethics: 3 semester hours.

Examination of recent advances in biology and medicine in relation to basic ethical theories and traditional value systems. Focuses on human reproduction, genetic engineering, medical care, humans as experimental subjects, environmental issues, and death and dying. D

BIOL 2235 General Microbiology: 3 semester hours.

Comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms, and a survey of important applications. May be repeated upon completion of BIOL 2235L. PREREQ: BIOL 1101, BIOL 1102, and CHEM 1112. PRE-or-COREQ: BIOL 2235L. F, S

BIOL 2235L General Microbiology Lab: 1 semester hour.

Laboratory exercises covering comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms. PRE-or-COREQ: BIOL 2235. F, S

BIOL 2280 Mentored Research Alliance: 2 semester hours.

Discovery research in life sciences conducted in a cooperative learning community. May be repeated. PREREQ: BIOL 1101 and BIOL 1101L and permission of instructor. F, S

BIOL 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

BIOL 3301 Advanced Human Anatomy and Physiology 1: 3 semester hours.

Structures and functions of integumentary, skeletal, muscular, and nervous systems. PREREQ: BIOL 1101, or BIOL 2227 and BIOL 2227L. PRE-or-COREQ: BIOL 3301L. F,S

BIOL 3301L Advanced Human Anatomy and Physiology 1 Lab: 1 semester hour.

Assignments to apply principles from BIOL 3301. PRE-or-COREQ: BIOL 3301. F,S

BIOL 3302 Advanced Human Anatomy and Physiology 2: 3 semester hours.

Structures and functions of circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. PREREQ: BIOL 1101, or BIOL 2227 and BIOL 2227L. PRE-or-COREQ: BIOL 3302L. F,S

BIOL 3302L Advanced Human Anatomy and Physiology 2 Lab: 1 semester hour.

Assignments to apply principles from BIOL 3302. PRE-or-COREQ: BIOL 3302. F,S

BIOL 3304 Comparative Vertebrate Morphology and Physiology: 5 semester hours.

Compares the structure and function of organisms including ionic and osmotic regulation, nerve and muscle, skeletal system, circulation, respiration and reproduction. PREREQ: BIOL 1101 and BIOL 1102 and one year of college chemistry. COREQ: BIOL 3304L. S

BIOL 3304L Vertebrate Morphology and Physiology Lab: 0 semester hours.

Hands-on investigation of the functional morphology and physiology of selected chordates, with representatives including fish, sharks, cats, and humans. PREREQ: BIOL 1101 and BIOL 1102 and one year of college chemistry. COREQ: BIOL 3304. S

BIOL 3305 Introduction to Pathobiology: 3 semester hours.

Concepts of pathobiology, to include causes, common mechanisms and manifestations of human disease. Patterns of pathogenesis as related to physiological mechanisms are examined. PREREQ: BIOL 3302. F, S

BIOL 3307 Radiobiology: 2 semester hours.

Survey of the effects of ionizing radiation on living matter at the subcellular, cellular, and organismal levels. Equivalent to HPHY 3307. PREREQ: BIOL 1101 and one of the following: PHYS 1100, PHYS 1111, PHYS 2211, or HPHY 3321. S

BIOL 3310 Invertebrate Zoology: 4 semester hours.

General study of invertebrate animals with laboratory work on representatives of the invertebrate phyla. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3310L. S

BIOL 3310L Invertebrate Zoology Lab: 0 semester hours.

Assignments to apply principles from BIOL 3310. S

BIOL 3316 Biometry Laboratory: 1 semester hour.

Statistical analysis and presentation of data for the biological sciences. This course, which complements MATH 3350, focuses on manipulation, presentation, and analysis of data sets. PRE-or-COREQ: MATH 3350. F, S

BIOL 3324 Developmental Biology: 4 semester hours.

Fundamental principles and concepts of embryological development. Selected model systems will be studied to illustrate basic concepts in development. PREREQ: BIOL 1101, BIOL 1102, and BIOL 2206. COREQ: BIOL 3324L. S

BIOL 3324L Developmental Biology Lab: 0 semester hours.

Assignments to apply principles from BIOL 3324. S

BIOL 3337 Conservation Biology: 3 semester hours.

An introduction to the multidisciplinary study of biodiversity patterns and threats to biodiversity from human activities. PREREQ: BIOL 2209 or permission of instructor. ES

BIOL 3358 Genetics: 3 semester hours.

Basic principles of heredity, variation, and gene expression among eukaryotes, prokaryotes, and viruses. PREREQ: BIOL 2206 or BIOL 2235. F, S

BIOL 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

BIOL 4400 Oral Histology and Embryology: 3 semester hours.

The microanatomy and formative processes of the teeth and their surrounding structures. COREQ: BIOL 4400L. F

BIOL 4400L Oral History and Embryology Lab: 0 semester hours.

Assignments to apply principles from BIOL 4400. S

BIOL 4404 Plant Physiology: 3 semester hours.

Study of plant physiological processes with emphasis on plant-environment interactions. Topics include physiological ecology, water relations, mineral nutrition, photosynthesis, respiration, translocation of photosynthate, secondary compounds and phytohormones. PREREQ: BIOL 1101 and BIOL 1102; one year of college chemistry. OF

BIOL 4404L Plant Physiology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4404. COREQ: BIOL 4404. OF

BIOL 4405 Plant Form and Function: 3 semester hours.

Integrated studies of anatomical and physiological adaptations of plants to their natural environment. Data collection and analysis will be emphasized. PREREQ: BIOL 1102. COREQ: BIOL 4405L. EF

BIOL 4405L Plant Form and Function Lab: 1 semester hour.

Assignments to apply principles from BIOL 4405. EF

BIOL 4406 Plant Diversity and Evolution: 4 semester hours.

Study of the reproduction, structure, development, evolution, and classification of the fungi, algae, bryophytes, and vascular plants. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4406L. D

BIOL 4406L Plant Diversity and Evolution Lab: 0 semester hours.

Assignments to apply principles from BIOL 4406. D

BIOL 4408 Plant Ecology: 3 semester hours.

Major factors limiting plant growth and distribution with emphasis on adaptation and response at the individual, population, and community levels. Lectures, Laboratories. PREREQ: BIOL 1101, BIOL 1102, and BIOL 2209. OS

BIOL 4408L Plant Ecology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4408. OS

BIOL 4412 Systematic Botany: 4 semester hours.

Study of classification and evolution of flowering plants; techniques of phylogeny reconstruction based on molecular and morphological characters. Collection/identification of local flora. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4412L. D

BIOL 4412L Systematic Botany Lab: 0 semester hours.

Assignments to apply principles from BIOL 4412. D

BIOL 4413 Biology Teaching Methods: 3 semester hours.

Designed to help biology teachers plan, teach and evaluate teaching activities. Includes practical experience in a diversity of methods used in science classrooms, and in resources that enhance professional development. Required for secondary teaching majors in biology. PREREQ: 16 credit hours of biology and EDUC 3302, or permission of instructor. F

BIOL 4415L Human Neurobiology Lab: 1 semester hour.

Detailed examination of the gross anatomy and pathways of the human central nervous system. PREREQ: Permission of instructor. S

BIOL 4416 Population Ecology: 3 semester hours.

Introduces quantitative analysis of populations, emphasizing demography, distribution, abundance, spatial and temporal dynamics, biodiversity, coexistence, and applications to conservation and land use decision-making. Includes data collection and analysis. PREREQ: BIOL 2209. COREQ: BIOL 4416L. ES

BIOL 4416L Population Ecology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4416. ES

BIOL 4417 Organic Evolution: 3 semester hours.

An integrated study of evolution as a unifying concept in biology. An examination of patterns and processes that affect the origin and diversification of species through time. PREREQ: BIOL 3358 and BIOL 2209. F, S

BIOL 4418 Ecological Topics: 1 semester hour.

Flexible use of seminars, lectures, and laboratory/field work dealing with current issues in ecology. Topic/emphasis varies. May be repeated for up to 3 credits. PREREQ: BIOL 2209 or permission of instructor. F, S

BIOL 4419 Mammalian Histology: 4 semester hours.

Study of animal tissues, including structural and functional characteristics of tissues and organs. PREREQ: BIOL 2206, and either (BIOL 3304 and BIOL 3304L) or (BIOL 3301 and BIOL 3302). COREQ: BIOL 4419L. F

BIOL 4419L Mammalian Histology Lab: 0 semester hours.

Assignments to apply principles from BIOL 4419. F

BIOL 4420 Musculo-Skeletal Anatomy: 2 semester hours.

Study of human body structure emphasizing muscular system and its relationship to axial and appendicular skeleton. Focus is on extremities, thorax, and pelvis with applications toward normal, diseased and rehabilitative functions. PREREQ: BIOL 3301 and BIOL 3302. ES

BIOL 4423 General Parasitology: 3 semester hours.

Study of parasitic symbioses of animals, plants and other organisms focusing on concepts, principles, and consequences of such interactions and the coevolutionary processes by which they are created. PREREQ: BIOL 1101 and BIOL 1102. F

BIOL 4426 Herpetology: 3 semester hours.

The biology of amphibians and reptiles: lecture topics include evolutionary history, functional morphology, physiological ecology, biogeography, reproductive, and population ecology. Laboratories and field trips cover systematic, natural history, and collecting/sampling techniques. PREREQ: BIOL 2209. COREQ: BIOL 4426L. ES

BIOL 4426L Herpetology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4426. ES

BIOL 4427 Ichthyology: 3 semester hours.

The biology of fishes: lecture topics include evolutionary history, functional morphology, physiological ecology, and biogeography. Laboratory and weekend field trips cover identification, natural history and collecting techniques. Emphasis on Idaho species. PREREQ: BIOL 2209. COREQ: BIOL 4427L. EF

BIOL 4427L Ichthyology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4427. EF

BIOL 4428 Medical Parasitology and Entomology: 3 semester hours.

Study of animal parasites, with an emphasis on protists, helminths and arthropods affecting human health and welfare by their presence or indirectly via pathogens they transmit. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4428L. D

BIOL 4428L Medical Parasitology and Entomology Lab: 0 semester hours.

Assignments to apply principles from BIOL 4428. D

BIOL 4429 Regional Anatomy and Histology: 4 semester hours.

Regional approach to gross human anatomy emphasizing the use of prosected materials and microscopic anatomy. Designed primarily for students in the Physician Assistant Program. PREREQ: BIOL 3301, BIOL 3302. COREQ: BIOL 4429L. F

BIOL 4429L Regional Anatomy and Histology Lab: 0 semester hours.

Assignments to apply principles from BIOL 4429. F

BIOL 4431 General Entomology: 3 semester hours.

Structure, development, classification, and life histories of insects, including ecological, economic and management considerations. An insect collection may be required. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4431L. OF

BIOL 4431L General Entomology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4431. OF

BIOL 4432 Biochemistry: 3 semester hours.

Comprehensive discussion/presentation of structure, function and metabolism of biological macromolecules and their constituents, including energetics, regulation, and molecular biology, with emphasis on critical analysis of biochemical issues. PREREQ: BIOL 1101 and CHEM 3301. F, S

BIOL 4433 Microbial Physiology: 3 semester hours.

Comparative physiology of microorganisms, including structure/function, metabolic diversity, enzymatic mechanisms of microbial metabolism, and physiology of extreme organisms. This course is a coreq for BIOL 4433L. May be repeated upon completion of BIOL 4433L. PREREQ: BIOL 2235, BIOL 2235L and completion of 90 credits. F

BIOL 4433L Microbial Physiology Laboratory: 1 semester hour.

Laboratory exercises in comparative physiology of microorganisms. PREREQ: BIOL 2235, BIOL 2235L, and either BIOL 4432 or BIOL 4445. COREQ: BIOL 4433. F

BIOL 4434 Microbial Diversity: 3 semester hours.

Factors influencing the enrichment, cultivation, and isolation of prokaryotes from various metabolic groups and environments. May be repeated upon completion of BIOL 4434L. PREREQ: BIOL 2235 and BIOL 2235L. PRE-or-COREQ: BIOL 4434L. S

BIOL 4434L Microbial Diversity Lab: 1 semester hour.

Enrichment, cultivation and isolation of prokaryotes from various metabolic groups and environments. COREQ: BIOL 4434. S

BIOL 4435 Vertebrate Paleontology: 4 semester hours.

Phylogenetic history of the vertebrates outlined in the light of morphology, classification, evolution, paleoecology, and the significance of fossils. Field trips. Equivalent to GEOL 4435. PREREQ: GEOL 4431, or BIOL 3304 and BIOL 3304L, or equivalent. D

BIOL 4437 Experimental Biochemistry: 1 semester hour.

Laboratory course including both qualitative and quantitative experiments. Equivalent to CHEM 4438. PREREQ or COREQ: BIOL 4432 or BIOL/CHEM 4445. F, S

BIOL 4438 Ornithology: 4 semester hours.

Study of the origin, evolution, structure, habits, adaptations, distribution, and classification of birds. Field trips. PREREQ: BIOL 1101, BIOL 1102, and BIOL 2209. S

BIOL 4439 Principles of Taphonomy: 3 semester hours.

Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Equivalent to ANTH 4439 and GEOL 4439. PREREQ: Permission of instructor. D

BIOL 4440 Human Gross Anatomy: 4 semester hours.

Comprehensive regional study of gross human anatomy with emphasis on the upper limb, thorax, abdomen, pelvis, and perineum. Designed for first year dental students and complements BIOL 4450. COREQ: BIOL 4440L. F

BIOL 4440L Human Gross Anatomy Lab: 0 semester hours.

Assignments to apply principles from BIOL 4440. F

BIOL 4441 Mammalogy: 3 semester hours.

General study of mammals including classification, identification, habits, ecology, economics, and techniques of study, with emphasis on North American forms. Field trips. PREREQ: BIOL 2209. COREQ: BIOL 4441L. OF

BIOL 4441L Mammalogy Lab: 1 semester hour.

Assignments to apply principles from BIOL 4441. OF

BIOL 4442 Plant Animal Interactions: 3 semester hours.

Coevolution of plant and animal form and function emphasizing pollination, herbivory, parasitism, frugivory/seed dispersal, and optimal foraging. PREREQ: BIOL 2209. EF

BIOL 4443 Endocrinology: 3 semester hours.

Study of the anatomy and physiology of the ductless glands and the properties and uses of natural and synthetic hormones. PREREQ: BIOL 3304 and BIOL 3304L. ES

BIOL 4444 Cell and Molecular Biology: 3 semester hours.

Fundamental principles of cell structure, function and molecular biology: DNA replication, repair, and recombination, transcriptional and post-transcriptional regulation of gene expression, RNA metabolism, protein synthesis, targeting and turnover, post-translational modifications, signal transduction, regulation of the cell division cycle, and molecular genetics of development. May be repeated upon completion of BIOL 4444L. PREREQ or COREQ: BIOL 4444L. PREREQ: BIOL 3358 and CHEM 3302. S

BIOL 4444L Cell and Molecular Biology Lab: 1 semester hour.

Laboratory techniques in cell and molecular biology, including cloning, PCR and DNA sequencing. PRE-or-COREQ: BIOL 4444. S

BIOL 4445 Biochemistry I: 3 semester hours.

Introduction to basic aspects of biochemical systems, including fundamental chemical and physical properties of biomolecules. Enzymology, including allosterism, metabolic regulation, bioenergetics, and carbohydrate metabolism. Equivalent to CHEM 4445. PREREQ: BIOL 1101 and CHEM 3302. F

BIOL 4446 Selected Topics in Physiology: 1 semester hour.

Selected topics in physiology for dental students: blood coagulation-complement-kinin systems, prostaglandin and related substances, vitamins, steroids, mucopolysaccharides, collagen and other extracellular matrix macromolecules and cyto- and molecular genetics. S

BIOL 4447 Biochemistry II: 3 semester hours.

Functional continuation of BIOL 4445. Lipid, amino acid, and nucleotide metabolism. Emphasis is on regulation of metabolism, metabolic dysfunctions, biochemical mechanisms of hormone action, biochemical genetics, protein synthesis, and metabolic consequences of genetic defects. Equivalent to CHEM 4447. PREREQ: BIOL/CHEM 4445. S

BIOL 4448 Advanced Experimental Biochemistry: 2 semester hours.

Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Equivalent to CHEM 4448. PREREQ: BIOL 4437/CHEM 4438. COREQ: BIOL/CHEM 4447. F, S

BIOL 4449 Human Physiology I: 4 semester hours.

First of a two semester sequence. Physiology of the nervous, muscular and circulatory systems. Equivalent to PHAR 9949. PREREQ: BIOL 1101. OF

BIOL 4450 Head and Neck Anatomy: 3 semester hours.

Comprehensive presentation of the anatomy of the head and neck as it applies to the practice of dentistry. COREQ: BIOL 4450L. F

BIOL 4450L Head and Neck Anatomy Lab: 0 semester hours.

Assignments to apply principles from BIOL 4450. S

BIOL 4451 Immunology: 3 semester hours.

Study of antigens, antibodies, complement, humoral and cell-mediated immune responses, hypersensitivity, immunodeficiency, autoimmunity, tumor immunology, transplantation, vaccines, infectious disease immunology, and immunodiagnostic assays. PREREQ: BIOL 2221 and BIOL 2221L, or BIOL 2235 and BIOL 2235L. F

BIOL 4451L Immunology Laboratory: 1 semester hour.

Selected laboratory experiments to accompany Immunology BIOL 4451. PREREQ or COREQ: BIOL 4451. Open to non-majors by special permission. F

BIOL 4453 Foundations in Neuroscience: 3 semester hours.

Organizing principles in neuroscience including biological signaling of excitable cells, neuroanatomy and regional brain functions, and sensorimotor integration of behavior. PREREQ: Permission of instructor. S

BIOL 4454 Advanced Immunology: 3 semester hours.

Detailed study of selected areas of immunobiology. Course content will vary with current demand. Students will lead discussions and present current literature. PREREQ: BIOL 4451 and permission of instructor. D

BIOL 4455 Pathogenic Microbiology: 3 semester hours.

How the medically important bacteria, viruses and fungi interact with the host to produce disease, including microbe characteristics, pathogenesis, pathological processes, prevention, and treatment methods. PREREQ: BIOL 2221 and BIOL 2221L, or BIOL 2235 and BIOL 2235L. S

BIOL 4455L Pathogenic Microbiology Laboratory: 2 semester hours.

Will emphasize procedures for the isolation and identification of pathogenic bacteria. Clinical specimens will be provided for use in identification of unknowns. PREREQ or COREQ: BIOL 4455. S

BIOL 4456 Human Physiology II: 4 semester hours.

Physiology of the respiratory, renal, gastrointestinal, and endocrine systems. Includes studies of acid-base balance. Equivalent to PHAR 9956. PREREQ: BIOL 4449 or equivalent. ES

BIOL 4459 Fish Ecology: 3 semester hours.

Study of the behavior, habitat use, population dynamics, and management of freshwater fishes, especially salmon and trout. Laboratory and weekend field trips emphasize sampling techniques and data analysis. COREQ: BIOL 4459L. PREREQ: BIOL 2209. OF

BIOL 4459L Fish Ecology Laboratory: 1 semester hour.

Assignments to apply principles from BIOL 4459. COREQ: BIOL 4459. OF

BIOL 4460 Neuroscience: 4 semester hours.

Comprehensive presentation of the anatomy and physiology of the central nervous system, the brain and spinal cord, including clinical pathologies. Combined lecture and laboratory demonstration. PREREQ: BIOL 4453. S

BIOL 4461 Advanced Genetics: 3 semester hours.

Detailed and critical consideration of selected genetic topics with emphasis on recent advances. PREREQ: BIOL 3358. S

BIOL 4462 Freshwater Ecology: 3 semester hours.

Study of the interaction of physical and biotic factors in aquatic ecosystems. Field trips. PREREQ: BIOL 2209. COREQ: BIOL 4462L. EF

BIOL 4462L Freshwater Ecology Lab: 1 semester hour.

Assignments to apply principles from BIOL 4462. COREQ: BIOL 4462. EF

BIOL 4463 Human Pathophysiology: 4 semester hours.

The study of basic process underlying diseases, with an emphasis on correlating anatomical, functional, and biochemical alterations with clinical manifestations. PREREQ: BIOL 3301 and BIOL 3302, or permission of instructor. COREQ: BIOL 4463L. F

BIOL 4463L Human Pathophysiology Lab: 0 semester hours.

Assignments to apply principles from BIOL 4463. COREQ: BIOL 4463. F

BIOL 4464 Lectures in Human Physiology: 4 semester hours.

Physiology of the nervous, muscular, circulatory, respiratory, and excretory systems. PREREQ: BIOL 3301, BIOL 3302, and one year of college chemistry. F

BIOL 4466 Medical Mycology: 3 semester hours.

Lecture/laboratory course addressing medically important fungi. Taxonomy, clinical disease, pathogenesis, immunological diagnosis and laboratory identification of contaminants, opportunists, superficial, cutaneous, subcutaneous and systemic mycoses. PREREQ: BIOL 2221 or BIOL 2235. D

BIOL 4469 Special Topics in Microbiology: 1-4 semester hours.

Study of selected topics in microbiology. Course contents will vary with topics selected. May be repeated with departmental approval for nonrepetitive course content. PREREQ: Permission of instructor. F, S

BIOL 4470 Cross-Sectional Anatomy: 2 semester hours.

Applied regional anatomy as viewed in sectional planes, emphasizing topographic relationships of organs and surface anatomy, with interpretation of correlated CT and MRI imaging. PREREQ: BIOL 3301 and BIOL 3302. S

BIOL 4471 Fundamentals of Biological Imaging: 3 semester hours.

Introduction to microscopy with an emphasis on image formation, documentation, interpretation and analysis relevant to experimental applications in the biological sciences. Lecture and laboratory with independent research component. EF

BIOL 4472 Clinical Physiology: 2 semester hours.

A survey of selected organ systems with clinical correlations of pathophysiologic states. PREREQ: BIOL 4464. S

BIOL 4473 Applied and Environmental Microbiology: 3 semester hours.

Concepts in applied microbiology and microbial ecology, including fermentation, biotechnology, and ecophysiology. May be repeated upon completion of BIOL 4473L. PREREQ: BIOL 2235. COREQ: BIOL 4473L. ES

BIOL 4473L Applied Environmental Microbiology Lab: 1 semester hour.

Laboratory exercises in applied and environmental microbiology. COREQ: BIOL 4473. ES

BIOL 4474 Human Anatomy Occupational and Physical Therapy: 5 semester hours.

Applied regional anatomy emphasizing the development, histology and gross anatomy of the musculoskeletal, peripheral nervous, and cardiopulmonary systems. Includes laboratory with cadaver dissection. PREREQ: Permission of instructor. COREQ: BIOL 4474L. F

BIOL 4474L Human Anatomy Occupational and Physical Therapy Lab: 0 semester hours.

Assignments to apply principles from BIOL 4474. COREQ: BIOL 4474. F

BIOL 4475 General Virology: 3 semester hours.

Introduction to the general principles of virology through consideration of structure, genetics, replication and biochemistry of animal and bacterial viruses. PREREQ: Completion of 90 credits. F

BIOL 4477 Bacterial Virology Laboratory: 1 semester hour.

Designed to acquaint students with the techniques and experimental principles used in the study of bacterial viruses. PREREQ or COREQ: BIOL 4475. S

BIOL 4478 Animal Virology Laboratory: 1 semester hour.

Introduces tissue culture methods and other techniques employed in the study of animal viruses. PREREQ or COREQ: BIOL 4475. F

BIOL 4480 Mentored Research Alliance: 2 semester hours.

Discovery research in life sciences conducted in a cooperative learning community. May be repeated. PREREQ: BIOL 1101 and BIOL 1101L and permission of instructor. F, S

BIOL 4481 Independent Problems: 1-4 semester hours.

Individual problems will be assigned to students on the basis of interest and previous preparation. May be repeated for up to 4 credits. PREREQ: A minimum of two courses in biological sciences and permission of the instructor. F

BIOL 4482 Independent Problems: 1-4 semester hours.

Individual problems will be assigned to students on the basis of interest and previous preparation. May be repeated for up to 4 credits. PREREQ: A minimum of two courses in biological sciences and permission of the instructor. S

BIOL 4486 Human Systemic Physiology: 5 semester hours.

One-semester lecture/laboratory human physiology course emphasizing the function and regulation of the muscular, skeletal, circulatory, respiratory, urinary, reproductive, and immune systems. PREREQ: CHEM 1111, CHEM 1111L, CHEM 1112, and CHEM 1112L; BIOL 3301 and BIOL 3302 or equivalent. COREQ: BIOL 4486L. F

BIOL 4486L Human Systemic Physiology Lab: 0 semester hours.

Assignments to apply principles from BIOL 4486. COREQ: BIOL 4486. F

BIOL 4488 Advanced Radiobiology: 3 semester hours.

An advanced-level class covering aspects of molecular radiobiology, teratogenesis, oncogenesis, and acute radiation illnesses. It also considers nonstochastic radiation effects and the epidemiology of radiation exposures. Equivalent to HPHY 4488. PREREQ: Permission of instructor. AF

BIOL 4489 Field Ecology: 4 semester hours.

An intensive field study of at least one biogeographical region to increase student's knowledge of, and skill with, field sampling techniques, field-study design, data collection and analysis, and report preparation. Lectures, laboratories. PREREQ: BIOL 2209 and a course in statistics. S

BIOL 4490 Ecosystem Ecology and Global Changes: 4 semester hours.

Examination of the structure and function of ecosystems and their responses to natural and anthropogenic changes emphasizing energy, water, carbon, and nitrogen cycling. Field trip. Equivalent to GEOL 4490. PREREQ: BIOL 2209 or permission of instructor. PRE-or-COREQ: CHEM 1111. 0S

BIOL 4491 Seminar: 1 semester hour.

Review of current research and literature in the general fields of biological science. May be repeated for up to 2 credits. PREREQ: Senior standing or permission of department. F, S

BIOL 4492 Seminar: 1 semester hour.

Review of current research and literature in the general fields of biological science. May be repeated for up to 2 credits. PREREQ: Senior standing or permission of department. F, S

BIOL 4493 Senior Thesis: 1-4 semester hours.

This is a course supervised by a committee of at least two faculty members, approved by the department chair. The thesis topic may be interdisciplinary, with four credits conferred by one or more departments. May be repeated for up to 4 credits. PREREQ: Senior status; permission of department. F, S

BIOL 4494 Seminar in Microbiology: 1 semester hour.

Presentation of written and oral review of library research in microbiology and molecular biology by students for discussion with faculty and fellow students. May be repeated for up to 2 credits. F, S

BIOL 4495 Animal Behavior: 4 semester hours.

Behavior of animals and the evolutionary mechanisms which dictate behavioral patterns. PREREQ: Upper-division or Graduate status. EF

BIOL 4496 Ecology Senior Seminar: 1 semester hour.

Review of current research in ecology and related areas. Attendance at departmental seminars and written summaries of the seminars required. May be repeated for up to 2 credits. PREREQ: Senior status and Ecology major or permission of department. F, S

BIOL 4498 Seminar in Biochemistry: 1 semester hour.

Review of current research and literature in the field of biochemistry. Equivalent to CHEM 4498. May be repeated for up to 2 credits. PREREQ: Senior standing or permission of department. F, S

BIOL 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

BIOL 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Bus Educ (BED)

Courses

BED 3332 Methods in Business Education: 3 semester hours.

Designed to prepare the potential business education teacher with the necessary methodology to successfully teach business education courses at the secondary level. D

BED 3341 Leadership and Advising in Career Technical Student Organizations I: 1 semester hour.

This course emphasizes the development, operation, and evaluation of career and technical student organizations. Students participate as a collegiate member and involve themselves with content area post-secondary and secondary competitive events program. Leadership skills are developed through instruction in planning, implementation and supervision of career and technical student organizations. Students will actively assist, up to 6 hours in the CTSO secondary program. Students are responsible for arranging and financing travel to appropriate CTSO events. F, S

BED 3342 Leadership and Advising in Career Technical Student Organizations II: 1 semester hour.

This course emphasizes the development, operation, and evaluation of career and technical student organizations through active involvement at the secondary and post-secondary level. Students participate as a collegiate member and involve themselves with content area post-secondary CTSO competitive events program. Students will actively assist, up to 8 hours, in supervising a regional CTSO. Students are responsible for arranging and financing travel to appropriate CTSO events. PREREQ: BED 3341. F, S

BED 3343 Leadership and Advising in Career Technical Student Organizations III: 1 semester hour.

This course emphasizes the development, operation, and evaluation of career and technical student organizations. Students participate as a collegiate member and involve themselves with content area post-secondary CTSO competitive events program, and are actively involved in the supervision of a secondary regional chapter and/or a state secondary CTSO conference. Students will actively assist, up to 8 hours, in supervising a regional CTSO. PREREQ: BED 3341. F, S

BED 3396 Work Experience in Business Occupations: 1-2 semester hours.

Credits awarded for work experience as verified by written/performance evaluation. Graded S/U. D

BED 4485 Independent Study in Business Education: 1-3 semester hours.

Individual work under staff guidance on areas of concern in business education. May be repeated with permission of instructor. PREREQ: Permission of instructor. D

BED 4496 Business Education Student Teaching Internship: 7-14 semester hours.

Candidates assume instructional and management responsibilities while teaching Business Education in a supervised high school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and approval by advisor. Graded S/U. F, S

Business Admin (BA)

Courses

BA 1110 The World of Business: 3 semester hours.

An introduction to business concepts, careers, and developing students as professionals. Introduces students to the major functional areas of business including accounting, computer information systems, finance, management, and marketing. F, S

BA 2200 Professional Development Seminar I: 1 semester hour.

Assessment and development of entry level technology and communication skills. Introduction to college goals and processes. Investigation of business career opportunities. Required of all students intending to major in business. PREREQ OR COREQ: ACCT 2202. F, S, Su

BA 2203 Issues in Business: 3 semester hours.

A basic overview of business operations and current issues in business with an emphasis on one or more of several business dimensions. Dimensions include business ethics, international business, business law, supply chain management, and entrepreneurship. Available to non-business majors only. D

BA 2210 Introduction to Professional Development I: 1 semester hour.

Helps college sophomores discover inherent skills and interests. Introduces potential careers based upon these skills and interests. Students will choose from a list of Professional Development activities such as skill and interest assessments to be used in building and envisioning their resume. Each student will also meet with an advisor, counselor, and other professionals to develop and tailor a successful career path in the desired profession. Graded S/U. F, S

Business Technology (BT)

Courses

BT 0110 Introduction to Business Technology: 2 semester hours.

Introduces general organizational and administrative office skills, professional dress, etiquette, ethics, and human relations. Explore careers in the field of business information. D

BT 0111 Applied Business Principles: 3 semester hours.

Future managers will gain leadership skills including how to work with, inspire, empower, and develop people to become more effective in their working roles. Topics include: management functions of planning, organizing, staffing and leading, communication, decision making, ethics, motivation, group development and team building, coaching for higher performance, conflict resolution, and stress and time management. F, S

BT 0115 Practicum: 1-3 semester hours.

On-the-job experience through internships, cooperative training, externships, workstudy, or other on-site work experience modalities. Graded S/U. F, S, Su

BT 0116 Professional Leadership Development: 1 semester hour.

This course will provide leadership opportunities to students involved in their professional student organization. Emphasis is on developing leadership, professionalism, dependability, patriotism, and competency in many different skill areas. May be repeated up to 3 credits. F, S

BT 0117 Successful Workplace Communications: 3 semester hours.

Develops and reinforces skills necessary to effectively communicate in the business setting. Will focus on verbal, written, and listening skills with an emphasis on grammar, word usage, proofreading, editing, composition, and basic research methods. F, S

BT 0118 Mechanics of Business Writing: 3 semester hours.

In this course students will develop effective language usage with emphasis on correct grammar, punctuation, sentence structure, the mechanics of writing business communication, and use of online office tools. F, S

BA 3301 Professional Development Seminar II: 1 semester hour.

Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from INFO 3301. Must be taken concurrently with the same numbered section of INFO 3301. COREQ: INFO 3301. F, S, Su

BA 3302 Professional Development Seminar III: 1 semester hour.

Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from CIS 3302. Must be taken concurrently with the same numbered section of CIS 3302. COREQ: CIS 3302. F, S, Su

BA 3310 Exploring Professional Development II: 1 semester hour.

College juniors will reflect and examine whether their career of interest is truly a good fit. Students will choose from a list of Professional Development activities with the primary emphasis of obtaining an internship in the desired profession. Graded S/U. PREREQ: BA 2210. F, S

BA 4400 Professional Development Seminar IV: 1 semester hour.

Assessment and development of critical thinking and communication skills. Investigation of business career and placement opportunities. COREQ: MGT 4460. F, S, Su

BT 0119 Business Communications: 2 semester hours.

Provides communication skills necessary to speak and write clearly in business environment. Focus on proofreading, editing, composition, oral and listening communications, and basic research. PREREQ: BT 0118 with a grade of C- or better. F, S

BT 0120 Basic Accounting: 3 semester hours.

This course is an introduction to accounting procedures for individual proprietorship businesses. Emphasis is on the accounting cycle, double-entry accounting, payroll, and procedures for handling transactions associated with both service and merchandising businesses. Students will practice proper accounting procedures manually and/or on spreadsheet software. It is also helpful to those who want to upgrade business skills for improved employability. F, S

BT 0121 Digital Input and Transcription: 3 semester hours.

Use current digital input devices (digital recorders, speech recognition, personal digital assistants, and handwriting tablets) and standard transcription equipment to produce and manage business information. Emphasis on punctuation, word study, spelling, formatting, and proofreading skills. PREREQ: BT 0118 and BT 0144 or permission of instructor. D

BT 0123 Financial Business Applications: 3 semester hours.

In this course students will develop effective financial business concepts with emphasis on 10-key computations, banking concepts, payroll, retail computations, and time value of money. F, S

BT 0130 Building Your Brand for Small Businesses: 3 semester hours.

This course introduces and discusses the basic elements of small business marketing and its process with a focus on principles, brand importance, ecommerce, and social media. F, S

BT 0135 Employees and HR Principles: 3 semester hours.

This course discusses basic principles of Human Resources to give students a working knowledge of employment practices in the workplace. Concepts include HR management, staffing, ethics and corporate social responsibility, HR development, employment law, job analysis, strategic planning, recruitment, employee selection, performance management, compensation and benefits, and employee relations. PRE-or-COREQ: BT 0111, BT 0117 or instructor permission. F, S

BT 0141 Keyboarding: 1 semester hour.

This course is designed to teach beginning keyboarding by touch to a minimum speed of 25 nwpm. The alphabetic, punctuation, numbers, and symbols keys are covered. Experienced typists benefit from the reinforcement of key locations and techniques to build speed and accuracy. May be repeated up to 3 credits. Graded S/U. F, S, Su

BT 0144 Business Document Processing: 3 semester hours.

In this course students will develop proficiency using word processing software to create and format documents according to current business standards. Typing speed of 25 words per minute recommended for entry. D

BT 0145 Integrated Computer Applications: 3 semester hours.

This course emphasizes proficiency in word processing, spreadsheets, database, and presentation software. The project-based integrated content simulates a real-world work environment and focuses on productivity, work habits, and communication skills. PREREQ: BT 0144, BT 0170, BT 0173, and BT 0174. F

BT 0147 Accounting Applications: 3 semester hours.

Advanced business accounting concepts, principles, and practices. Partnership and corporate accounting, accounting for stocks and bonds. Emphasis on critical thinking and on reinforcing previous accounting knowledge. PREREQ: BT 0118, BT 0120, and BT 0123. S

BT 0148 Payroll Procedures: 3 semester hours.

Payroll concepts and procedures including payroll calculations, payroll registers, state and federal withholding and reporting requirements. Both manual and computerized payroll systems will be utilized. PREREQ: BT 0120, BT 0123, and BT 0170. S

BT 0154 Administrative Management: 3 semester hours.

Preparation for a broad range of administrative office management responsibilities. Collaboration skills, professional development, and career planning strategies. PREREQ: BT 0118 and BT 0144. F, S

BT 0170 Computer Literacy and Business Software: 3 semester hours.

Important computer and digital technology concepts, issues and skills taught for business careers and life. Concept topics include hardware, software, networking, Internet, digital media, business information systems, and information security. Issue topics include computer ethics, intellectual property rights, privacy, freedom of speech, and globalization. Skill development includes operating systems and file management, online research, word processing, spreadsheets, presentation, and database software. F, S

BT 0171 Computerized Accounting: 3 semester hours.

This course is designed to offer the student the opportunity to experience hands-on microcomputer bookkeeping procedures, generate reports, and analyze financial statements. PREREQ: BT 0120, BT 0144, and BT 0170. F, S

BT 0172 Digital Publishing: 3 semester hours.

This course introduces basic principles of design and utilizes a variety of computer application skills, e.g., Adobe, MS Office, Google Apps, and basic HTML5 to produce and present business information in digital and print formats. PREREQ: BT 0170 and BT 0144. F

BT 0173 Spreadsheets: 3 semester hours.

This course is designed to acquaint users with the process and skills of using personal computers and application software to create and format spreadsheets for the use of data computation and manipulation, database and file management, spreadsheet analysis, graphs. PREREQ: BT 0170. Typing speed of 25 nwpm recommended. D

BT 0174 Records and Database Management: 3 semester hours.

Introduces principles and practices of effective records management for both manual and electronic records systems. Hands-on database applications are used to create, maintain, analyze, and protect records. PREREQ: BT 0170; typing speed of 25 nwpm recommended. D

BT 0175 Harnessing Digital Data Using Spreadsheets and Databases: 3 semester hours.

This course will cover the use of computer application software to create and format spreadsheets and databases. Topics include: data computation and manipulation, database and file management, spreadsheet analysis, graphs, and report design. Introduces principles and practices of effective records management for both manual and electronic records systems. PREREQ: BT 0170 or instructor permission; typing speed of 25 nwpm recommended. D

BT 0180 Designing Web Communications: 3 semester hours.

Introduces basic principles of design and content management and explores a variety of tools to create digital publications and user-focused websites. PREREQ: BT 0170 and BT 0144 or instructor permission. D

BT 0181 Maintaining Digital Communications: 3 semester hours.

Applies advanced design and content management concepts, planning tools, text editors, authoring software, and online tools to produce content on user-focused web sites. PRE-or-COREQ: BT 0180 or instructor permission. D

BT 0199 Experimental Course: 3 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

BT 0201 Office Resource Management: 3 semester hours.

Tools for managing technology and productivity in today's business environment. Basic computer and network maintenance and troubleshooting. PREREQ: BT 0154. F

BT 0220 Introduction to Entrepreneurship: 3 semester hours.

Small business opportunities, business plans, sources of financing, forms of small business ownership, family-owned businesses, and other small business topics are discussed. F

BT 0230 Marketing and Managing a Small Business: 3 semester hours.

Markets and pricing, promotion and selling, e-commerce; managing finances, legal concerns, human resources, inventory control, and other small business topics of interest will be discussed. S

BT 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter-graded. D

BT 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U or may be letter-graded. D

BT 0299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

BT 0399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Career and Technical Education (CTE)

Courses**CTE 4401 Foundations of Career and Technical Education: 3 semester hours.**

Acquaints the student with the various aspects of career and technical education: history, legislation, philosophy, and organization of career and technical education. PREREQ: Permission of instructor. F, S, U

CTE 4402 Analysis and Course Construction: 3 semester hours.

Analysis of components of occupations to determine instructional content. Development of career and technical education instructional materials based on performance objectives. PREREQ: Permission of instructor. F, S, U

CTE 4403 Methods of Teaching in Career and Technical Education: 3 semester hours.

Teaching methods and techniques applicable to teaching in career and technical education. PREREQ: Permission of instructor. F, S

CTE 4404 Evaluation in Career and Technical Education: 3 semester hours.

Designing and conducting formative and summative assessments and evaluations in career and technical education. PREREQ: Permission of instructor. F, S

CTE 4443 Supervision and Organization of Career and Technical Student Organizations: 3 semester hours.

This course is an examination of historical perspectives of Career and Technical Student Organizations. Course will focus on recruitment and retention of student members, the development of student leadership skills, presentation skills, technical skills appropriate to the specific career program, and implications of state and federal CTSO standards. Instruction will also include preparing students for local, state and national skills events. PREREQ: Permission of instructor. D

CTE 4444 Career Guidance and Special Needs Career and Technical Education: 3 semester hours.

Examine career guidance concepts, specialist services, special needs legislation, abilities and inabilities (both mental and physical), job-seeking skills, and information sources for CTE. PREREQ: Permission of instructor. D

CTE 4464 Career and Technical Education Instructional Facilities Management: 3 semester hours.

Organization, safety, and management of career and technical education teaching facilities. An in-depth study of laboratory requirements and total facility planning. PREREQ: Permission of instructor. D

CTE 4467 Practicum: Student Teaching: 3-8 semester hours.

Development of teaching competencies applicable to career and technical education settings at the secondary and post-secondary levels. PREREQ: Permission of instructor. Graded S/U. F, S

CTE 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Chemistry (CHEM)

Courses**CHEM 1100 Concepts of Chemistry: 4 semester hours.**

How scientific thought has produced chemical models of the structure of the material world, and the ethical and social consequences of its applications. Recommended for students not majoring in the natural sciences. Partially satisfies Objective 5 of the General Education Requirements. F

CHEM 1101 Introduction to Chemistry: 3 semester hours.

Atomic structure, chemical calculations, solutions, acid-base reactions, and equilibrium. May not be used as a prerequisite to other courses in chemistry except CHEM 1102. PREREQ: MATH 1108 or equivalent. Partially satisfies Objective 5 of the General Education Requirements. F, S

CHEM 1102 Essentials of Organic and Biochemistry: 3 semester hours.

Descriptive organic and biochemistry with emphasis on organic compounds of biological importance. May not be used as a prerequisite to other courses in chemistry. PREREQ: CHEM 1101 or CHEM 1111 and CHEM 1111L. COREQ: CHEM 1103. Partially satisfies Objective 5 of the General Education Requirements. F, S

CHEM 1103 Essentials of Organic and Biochemistry Laboratory: 1 semester hour.

Laboratory course introducing fundamental measurement techniques, methods and materials used in general, organic and biochemistry. PREREQ: CHEM 1101 or CHEM 1111 and CHEM 1111L. COREQ: CHEM 1102. Partially satisfies Objective 5 of the General Education Requirements. F, S

CHEM 1111 General Chemistry I: 4 semester hours.

Introductory course for students in scientific and technical fields; structure and reactivity of elements and compounds, stoichiometry, states of matter, solutions, and chemical periodicity. Students who have not taken a high school chemistry course are strongly encouraged to take CHEM 1101 before taking CHEM 1111. May be repeated upon completion of CHEM 1111L. PREREQ or COREQ: CHEM 1111L. PREREQ: MATH 1143 or MATH 1147 or equivalent. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

CHEM 1111L General Chemistry I Lab: 1 semester hour.

Laboratory course to accompany General Chemistry I. PRE-or-COREQ: CHEM 1111. Partially satisfies Objective 5 of the General Education Requirements. F, S

CHEM 1112 General Chemistry II: 3 semester hours.

Introduction to kinetics, equilibrium, electrochemistry, and nuclear chemistry. May be repeated upon completion of CHEM 1112L. PREREQ: CHEM 1111 and CHEM 1111L or equivalent and MATH 1143 or MATH 1147 or equivalent. PREREQ or COREQ: CHEM 1112L Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

CHEM 1112L General Chemistry II Lab: 1 semester hour.

Laboratory course to accompany General Chemistry II. PRE-or-COREQ: CHEM 1112. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

CHEM 1199 Experimental Course: 1-3 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

CHEM 2211 Inorganic Chemistry I: 3 semester hours.

An exploration of bonding and reactivity across the periodic table, emphasizing the correlation of electronic structure to atomic and chemical properties, the molecular orbital theory of bonding, thermodynamic analysis of chemical change, 3-dimensional geometry of molecular and solid-state systems, the reactivity of transition metals (acid/base, solubility, and redox phenomena), and coordination chemistry. PREREQ: CHEM 3301 or permission of instructor. F

CHEM 2213 Inorganic Chemistry I Laboratory: 1 semester hour.

Preparation, isolation, and characterization of molecular and solid-state inorganic compounds. Specific techniques include air-free methods, gas-handling, measurement of electrical and magnetic properties, and UV-Vis, IR, and NMR spectroscopies. PREREQ: CHEM 3303 or permission of instructor. F

CHEM 2232 Quantitative Analysis: 2 semester hours.

Theoretical foundations of quantitative analysis including an introduction to statistical analysis of chemical data generated from gravimetric, volumetric and colorimetric methods. PREREQ: CHEM 1112, CHEM 1112L and MATH 1160 or MATH 1170. COREQ: CHEM 2234 or permission of instructor. S

CHEM 2234 Quantitative Analysis Laboratory: 2 semester hours.

Laboratory experiments in gravimetric, volumetric, and colorimetric analysis. PREREQ: CHEM 1112 and CHEM 1112L. COREQ: CHEM 2232 or permission of instructor. S

CHEM 3301 Organic Chemistry I: 3 semester hours.

The fundamentals of organic chemistry are examined through nomenclature, structure, physical and chemical properties, reaction mechanisms, spectroscopy and principal synthetic methods. PREREQ: CHEM 1112 and CHEM 1112L or permission of instructor. PREREQ or COREQ: CHEM 3303. F

CHEM 3302 Organic Chemistry II: 3 semester hours.

A continuation of CHEM 3301. The further study of the preparation, reactions, properties, reaction mechanisms and spectroscopy of organic compounds. PREREQ: CHEM 3301 or permission of instructor. PREREQ or COREQ: CHEM 3304. S

CHEM 3303 Organic Chemistry Laboratory I: 1 semester hour.

Introductory laboratory work in organic chemistry. Study and development of elementary techniques and their application to the preparation, isolation and characterization of simple organic compounds. COREQ: CHEM 3301 or permission of instructor. F

CHEM 3304 Organic Chemistry Laboratory II: 1 semester hour.

Further experience in the fundamental operations of organic chemistry laboratory work including the preparation and analysis of typical compounds. PREREQ: CHEM 3303. COREQ: CHEM 3302 or permission of instructor. S

CHEM 3311 Introduction to Research: 1-2 semester hours.

Directed library and laboratory research. Courses may be repeated for up to 6 credits. F, S

CHEM 3312 Introduction to Research: 1-2 semester hours.

Directed library and laboratory research. Courses may be repeated for up to 6 credits. F, S

CHEM 3331 Instrumental Analysis: 2 semester hours.

Advanced quantitative analysis dealing chiefly with quantitative applications of instrumental methods. PREREQ: CHEM 2232 and CHEM 2234 or permission of instructor. F

CHEM 3334 Instrumental Analysis Laboratory: 2 semester hours.

Laboratory course giving experience in fundamental operations of modern instrumental methods of analysis. PREREQ: CHEM 2232, CHEM 2234 and CHEM 3331 or permission of instructor. S

CHEM 3335 Experimental Biochemistry: 1 semester hour.

Laboratory course including both qualitative and quantitative experiments.

CHEM 3341 Topics in Physical Chemistry I: 3 semester hours.

Selected topics in physical chemistry with application to biological systems are covered. Potential topics include: Molecular structure, thermodynamics of gases and solutions, reaction rates and mechanisms, basic quantum mechanics, and spectroscopic principles are covered in this first course of a two semester sequence. PREREQ: CHEM 1112 and CHEM 1112L, MATH 1160 or MATH 1170, PHYS 1112 or PHYS 2212, or permission of instructor. F

CHEM 3342 Topics in Physical Chemistry II: 3 semester hours.

Selected topics not covered in CHEM 3341 in physical chemistry with application to biological systems are covered. Potential topics include: Molecular structure, thermodynamics of gases and solutions, reaction rates and mechanisms, basic quantum mechanics, and spectroscopic principles are covered in this second course of a two semester sequence. PREREQ: CHEM 3341 or permission of instructor. S

CHEM 3351 Physical Chemistry I: 3 semester hours.

Selected fundamental principles of physical chemistry are covered. Potential topics include: Thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry in this first course of a two-semester sequence. PREREQ: CHEM 1112, CHEM 1112L, MATH 1175, and PHYS 2212. F

CHEM 3352 Physical Chemistry II: 3 semester hours.

Selected fundamental principles of physical chemistry not covered in CHEM 3351 are covered. Potential topics include: Thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry in the second course of a two-semester sequence. PREREQ: CHEM 3351. S

CHEM 3365 Synthetic Methods: 2 semester hours.

Practical aspects of chemical synthesis: Preparation, purification, and spectral interpretation for organic and inorganic molecules. It is recommended that students take CHEM 3366 concurrently with CHEM 3365. PREREQ: CHEM 2211, CHEM 3302, and CHEM 3304. F

CHEM 3366 Synthetic Methods Laboratory: 2 semester hours.

Advanced laboratory methods for preparation of organic and inorganic molecules: synthetic techniques, air-sensitive methods, purification techniques, and characterization methods. PRE-or-COREQ: CHEM 3365. F

CHEM 3391 Seminar: 1 semester hour.

A formal introduction to scientific presentations including a short student presentation on selected library or laboratory research. PREREQ: CHEM 3301, CHEM 3303 or permission of instructor. R1

CHEM 4400 Practicum in Physical Science: 2 semester hours.

Practical problems associated with equipping, setting up and operating laboratories in chemistry. PREREQ: Permission of department chair. D

CHEM 4407 Inorganic Chemistry II: 2 semester hours.

Structure and reactivity of inorganic compounds including coordination compounds; acid-base chemistry and nonaqueous solvent systems; organometallic chemistry and other special topics of current interest. PREREQ: CHEM 2211 and PRE-OR-COREQ: CHEM 3352 or CHEM 3342, or permission of instructor. S

CHEM 4433 Environmental Chemistry: 2 semester hours.

Application of chemical principles and calculations to investigate environmental issues. Natural systems, environmental degradation and protection, and the methodology of chemical detection and monitoring. PREREQ: CHEM 2232 and CHEM 2234 or permission of instructor. F

CHEM 4437 Environmental Chemistry Laboratory: 1 semester hour.

Utilizes both structured and self-designed field and classroom experiments to emphasize principles of environmental chemistry. COREQ: CHEM 4433 or permission of instructor. F

CHEM 4438 Experimental Biochemistry: 1 semester hour.

Laboratory course including both qualitative and quantitative experiments. Equivalent to BIOL 4437. PREREQ or COREQ: BIOL 4432 or BIOL/ CHEM 4445. F, S

CHEM 4445 Biochemistry I: 3 semester hours.

Introduction to basic aspects of biochemical systems, including fundamental chemical and physical properties of biomolecules. Enzymology, including allosterism, metabolic regulation, bioenergetics, and carbohydrate metabolism. Equivalent to BIOL 4445. PREREQ: BIOL 1101 and CHEM 3302. F

CHEM 4447 Biochemistry II: 3 semester hours.

Functional continuation of CHEM 4445. Lipid, amino acid, and nucleotide metabolism. Emphasis is on regulation of metabolism, metabolic dysfunctions, biochemical mechanisms of hormone action, biochemical genetics, protein synthesis, and metabolic consequences of genetic defects. Equivalent to BIOL 4447. PREREQ: BIOL/CHEM 4445. S

CHEM 4448 Advanced Experimental Biochemistry: 2 semester hours.

Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Equivalent to BIOL 4448. PREREQ: BIOL 4437/CHEM 4438. COREQ: BIOL 4447. S

CHEM 4451 Physical Chemistry Laboratory I: 1 semester hour.

Experiments in quantum chemistry and spectroscopy, thermodynamics, and chemical kinetics. COREQ: CHEM 3351. F

CHEM 4452 Physical Chemistry Laboratory II: 1 semester hour.

Continuation of CHEM 4451. Experiments in quantum chemistry and spectroscopy, thermodynamics, and chemical kinetics. COREQ: CHEM 3352. S

CHEM 4470 Biorganic Chemistry: 3 semester hours.

Overview of basic principles of organic mechanisms, an overview of biochemistry principles, fundamentals of proteins and protein synthesis, enzymes and enzyme reaction mechanisms including group transfer, hydrolysis, animations, phosphorylation, reductions and oxidation, mono- and di-oxygenation, substitutions, carboxylations, and decarboxylations, isomerizations, and elimination and addition reactions. PREREQ: CHEM 3302 and CHEM 4445 or BIOL 4445. OS

CHEM 4481 Independent Problems in Chemistry: 1-4 semester hours.

Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits each. PREREQ: Permission of instructor. F

CHEM 4482 Independent Problems in Chemistry: 1-4 semester hours.

Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits each. PREREQ: Permission of instructor. S

CHEM 4485 Senior Research: 1-4 semester hours.

The student will be introduced to research techniques, development of manipulative skills, instrumental methods, laboratory notebook keeping, data interpretation and library research. PREREQ: Acceptance into the B.S./M.S. program. May be repeated for up to 8 credits. D

CHEM 4491 Seminar: 1 semester hour.

A formal introduction to the chemical literature including electronic methods of literature searching. A detailed treatment of methods for presenting scientific seminars including a full-length student presentation on selected library or laboratory research. COREQ: CHEM 4481, CHEM 4482, or CHEM 4485, or permission of instructor. F, S

CHEM 4498 Seminar in Biochemistry: 1 semester hour.

Review of current research and literature in the field of biochemistry. Equivalent to BIOL 4498. PREREQ: Senior standing or permission of department. F, S

CHEM 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Child Development (CHLD)

Courses**CHLD 0100 CDA Prep 1: 6 semester hours.**

This course will prepare students for the Child Development Associate (CDA) National Credentialing Program. Content in this course will be an introduction to Early Childhood professionalism, health, safety, learning environments, social and emotional development, and guidance in ECCE. Includes lecture and practicum. F, D

CHLD 0101 CDA Prep 2: 6 semester hours.

This course will prepare students for the Child Development Associate (CDA) National Credentialing Program. Content in this course will be an introduction to Early Childhood physical and cognitive development, language development, creativity, program management, and families. Includes lecture and practicum. PREREQ: CHLD 0100. S, D

CHLD 0105 Introduction to Early Childhood Education: 3 semester hours.

Orientation to Early Childhood Education including role of the teacher, professionalism, an overview of child growth and development, observation and assessment, and inclusive practices. F

CHLD 0111 Health, Safety, and Nutrition: 3 semester hours.

Course covers Health, Safety and nutritional practices in group settings: accident and illness prevention; nutrition requirements and menu planning; and development of good health habits in children. F

CHLD 0112 Learning Environments in Early Childhood Care and Education: 1 semester hour.

Establishing and maintaining quality learning environments for optimal child experience and learning. Includes indoor and outdoor environments, schedules and routines in ECCE. F

CHLD 0113 Foundations for Professional Preparation in Early Childhood Care and Education: 5 semester hours.

Academic and practical experience with planning, implementing and evaluating curriculum that enhances children's development in all domains, observation and assessment of children's learning and development, analysis of own skills and abilities, and in-depth reflection on family and community relationships. Upon completion, students who have completed the BTC and English 1101, will meet requirements for the Intermediate Technical Certificate and entry into the second year of the A.A.S. PREREQ: Permission of instructor. COREQ: CHLD 0115. F, S

CHLD 0115 Internship in Early Childhood Care and Education: 15 semester hours.

Student will complete experiential learning requirements including documenting 720 hours of work with young children and their families, submitting a resume, and documenting how they meet NAEYC standards in their work experience. COREQ: CHLD 0113. PREREQ: Permission of instructor. F, S

CHLD 0120 Social and Emotional Development in Early Childhood Care and Education: 6 semester hours.

Emphasizes stages of social and emotional development, encouraging self-esteem, cultural awareness, and effective communication skills. Introduces observation and assessment of social and emotional skills; describes strategies to promote healthy social and emotional development. Includes classroom lecture and practicum. F

CHLD 0125 Guidance in Early Childhood Care and Education: 3 semester hours.

Principles and techniques for providing developmentally appropriate guidance. Emphasis is placed on communication skills, strategies, and observation to understand the underlying causes of behavior. Students will demonstrate appropriate interaction with children, families, and promote conflict resolution, self-control, and self-motivation. Includes classroom lecture and practicum. F

CHLD 0130 Physical and Cognitive Development in Early Childhood: 6 semester hours.

Introduction to children's physical and cognitive development, including discovery experiences in math and science, block play, social studies, verbal and written language acquisition, and foundations in gross and fine motor development, brain development, multiple intelligences and learning styles. Includes classroom lectures and practicum. PREREQ: ENGL 1101 or ENGL 1101P. S

CHLD 0135 Fostering Creativity: 3 semester hours.

Creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasizes creative activities for children in art, music, movement and physical skills, and dramatics. Includes classroom lecture and practicum. S

CHLD 0141 Family Centered Care and Program Management in Early Childhood Care and Education: 3 semester hours.

Relationships between families and programs. Emphasis on requisite skills and benefits for successfully establishing, supporting, and maintaining respectful, collaborative relationships between today's diverse families, centers and school, and community resources. Strategies to ensure effective program operation are introduced. Includes classroom lecture and practicum. S

CHLD 0151 Curriculum Planning and Implementation in Early Childhood Care and Education: 4 semester hours.

Philosophy, curriculum, scheduling, observation and assessment, and instructional planning and evaluation. Students will assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies. Includes classroom lecture and practicum. S

CHLD 0210 Advanced Topics in Early Childhood Care and Education: 3 semester hours.

Elaborates on developmentally appropriate practice in early childhood education and care and research into other current topics, as related to student needs and interest. A focus on anti-bias curriculum and children's literature is also included. Includes classroom lecture and practicum. PREREQ: ENGL 1101. PREREQ or COREQ: ENGL 1102, and COMM 1101. F

CHLD 0215 Children with Exceptionalities: 2 semester hours.

Introduces working with children with exceptionalities. Emphasis on the characteristics of children and strategies for adapting the learning environment. Students will recognize atypical development, make appropriate referrals, and collaborate with families and professionals to plan, implement, and evaluate inclusion strategies. Includes classroom lecture and practicum. PREREQ: ENGL 1101 or ENGL 1101P. PREREQ or COREQ: ENGL 1102, and COMM 1101. F

CHLD 0220 Administration and Program Management in Early Childhood Care and Education: 3 semester hours.

Policies, procedures, personnel management for ECCE programs, including budgeting needs, marketing, and issues of insurance and applicable laws. Implementation of program goals, development of effective personnel supervision and managerial styles, and meeting NAEYC standards. PREREQ: ENGL 1101 or ENGL 1101P, and CHLD 0210 OR CHLD 0215. COREQ: ENGL 1102, COMM 1101. S

CHLD 0250 Capstone Project in Early Childhood Care and Education: 1 semester hour.

Students will demonstrate, through either a teaching role or an administrative role, their competence in integrating academic skills with early childhood knowledge. PREREQ: Permission of instructor. F, S

CHLD 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

CHLD 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

Child and Family Studies (CFS)

Child and Family Studies (CFS) courses are now listed as Family and Consumer Sciences (FCS) courses. Please see FCS (p. 567) for a list of courses.

Chinese (CHNS)

Courses

CHNS 1000A Guided Self Study: 1 semester hour.

Introduction to the Mandarin language via a computerized program in the Language Laboratory. Students work at their own pace. F, S

CHNS 1000B Guided Self Study: 1 semester hour.

Continued practice in the Mandarin language via a computerized program in the Language Laboratory. Students work at their own pace. PREREQ: CHNS 1000A. F, S

CHNS 1101 Elementary Chinese I: 4 semester hours.

Basic communication skills and grammatical structures in Chinese and introduction to the culture of Mandarin Chinese-speaking peoples. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

CHNS 1102 Elementary Chinese II: 4 semester hours.

Continuation of CHNS 1101. Practice in the language laboratory is required. PREREQ: CHNS 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. D

Civil Engineering (CE)

Courses

CE 1100 Engineering Fundamentals: 3 semester hours.

Fundamental tools are covered for success in civil engineering and other majors, especially engineering and science majors. Includes basic skills and study strategies to succeed in college courses including: test taking, math essentials, good note taking, time scheduling, unit conversions, email protocol, faculty/student interactions, cultural issues and problem-solving strategies. F, S

CE 1105 Engineering Graphics: 2 semester hours.

Engineering drawing emphasizing projections, sketching and 3-D visualization. Introduction to CAD with civil, electrical and mechanical engineering applications. PREREQ: MATH 1147 or equivalent. F, S

CE 1120 Introduction to Engineering: 2 semester hours.

Introduction to engineering problem solving, engineering design, analysis of contemporary societal issues and methods of presenting engineering information. Design projects and/or presentations of current engineering challenges. F, S

CE 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

CE 2200 Civil Engineering Tools: 1 semester hour.

Civil engineering problem solving using spreadsheets as a modern data analysis, reporting and database tool; word processing, reading plans/drawings and specifications. PREREQ: MATH 1170 and CS 1181 or INFO 1181. F

CE 2210 Engineering Statics: 3 semester hours.

Concepts of force vectors and equilibrium with emphasis on free body diagrams. Trusses, beams, frames, centroids, fluid statics, and friction. Equivalent to ME 2210. PREREQ or COREQ: CE 1105 or ME 1105; PHYS 2211; and MATH 1175. F, S

CE 2220 Engineering Dynamics: 3 semester hours.

Principles of kinetics. Angular and linear displacement, velocity, and acceleration analysis. Rigid bodies in motion and types of motion. Application of principles of force-mass acceleration, work-kinetic energy, and impulse-momentum to solution of problems of force systems acting on moving particles and rigid bodies. Equivalent to ME 2220. PREREQ: CE 2210 or ME 2210, PHYS 2211, CE 1105 or ME 1105; and MATH 1175. F, S

CHNS 2201 Intermediate Chinese I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing communication skills in Chinese. Contrastive study of culture as reflected in the Chinese language. Practice in the language laboratory is required. PREREQ: CHNS 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

CHNS 2202 Intermediate Chinese II: 4 semester hours.

Continuation of CHNS 2201. PREREQ: CHNS 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

CHNS 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

CE 3301 Surveying: 3 semester hours.

Fundamental principles of surveying. Electronic and conventional angle and distance measurement, leveling traversing, stadia, solar observation, surveying computations, mapping. Application to engineering, geology and architecture. PREREQ: CE 2210 or ME 2210. F, D

CE 3332 Basic Geotechnics: 3 semester hours.

Classification, analysis and evaluation of soils as engineering material. Water movement through soils. Soil mechanics applied to analysis of foundations, earth slopes and other structures. PREREQ: CE 2210 or ME 2210, PHYS 2211, CE 1105 or ME 1105; and MATH 1175. S

CE 3337 Geotechnical Engineering Laboratory: 1 semester hour.

Field and laboratory work on site investigation, soil sampling, classification and testing. Evaluation of soil properties. Design of experiments. PREREQ: ENGL 1102. PRE-or-COREQ: CE 3332. S

CE 3341 Fluid Mechanics: 3 semester hours.

Fluid statics, incompressible fluid flow, open channel flow, compressible fluid flow, pipe flow, flow measurements, pumps, valves, other devices. Equivalent to ME 3341. PREREQ: ME 2220 and MATH 3360. F, S

CE 3350 Mechanics of Materials: 3 semester hours.

Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. Equivalent to ME 3350. PREREQ: CE 2210 or ME 2210, PHYS 2211, CE 1105 or ME 1105; and MATH 1175. F, S

CE 3351 Engineering Hydrology: 3 semester hours.

Quantitative descriptions of hydrologic processes and dynamics for the understanding and prediction of precipitation, storm water runoff, groundwater flow, flood routing, and water quality, ground water and detention and retention systems. PRE-or-COREQ: CE/ME 3341. S

CE 3360 Engineering Economics: 2 semester hours.

Economic analysis and comparison of engineering alternatives by annual cost, present and future worth, and rate of return methods. Study of cost factors upon which management decisions are based. PREREQ: CE 2210 or ME 2210 or permission of instructor. F, S

CE 3361 Engineering Economics and Management: 3 semester hours.

Economic analysis and comparison of engineering alternatives by annual cost, present and future worth, and rate of return methods. Study of cost factors upon which management decisions are based. Introduction to design/construction processes, cost estimating and scheduling with applications to civil engineering projects. PREREQ: CE/ME 2210. F, S

CE 3362 Structural Analysis: 3 semester hours.

Analysis of statically determinate and indeterminate trusses, beams, and frames; effects of moving loads; matrix stiffness method; computer applications. PREREQ: CE 2210 or ME 2210, CE 3350 or ME 3350 with minimum grade of C-, and MATH 2240. F

CE 3366 Civil Engineering Materials: 2 semester hours.

Mechanical behavior of materials used in civil engineering: metals, masonry, concrete, asphalt, and wood. Micro and macroscopic behavior. Methods of laboratory testing. Analysis and presentation of data and preparation of written reports. PREREQ: CE 3350 or ME 3350, CE 2210 or ME 2210. COREQ: CE 3367. F

CE 3367 Civil Engineering Materials Laboratory: 1 semester hour.

Laboratory measurement of mechanical behavior of civil engineering materials. Design of experiment. PREREQ: ENGL 1102, CE 3350 or ME 3350, CE 2210 or ME 2210. COREQ: CE 3366. F

CE 4406 Green and Sustainable Engineering: 3 semester hours.

Study of green engineering and sustainability. Topics focused on design of processes to advance sustainability, manufacturing and disposal alternatives, energy and material life-cycle assessment, and environmental law and related issues. PREREQ: CHEM 1111. D

CE 4424 Open Channel Flow: 3 semester hours.

Application of the principles of fluid mechanics to flow in open channels - natural and manmade. Topics include uniform flow, flow resistance, gradually varied flow, flow transitions, unsteady flow, and hydraulic structures (culverts, weirs, etc.) used in open channel control. Computer applications will be used in the analysis of open channel systems. Restricted to seniors. PREREQ: CE 3351. D

CE 4425 Water Resources: 3 semester hours.

Overview of the general field of water resources engineering. Course topics covered in other courses such as CE 3351, Engineering Hydrology, CE 4435/5535, Hydraulic Design, and CE 4424/5524, Open Channel Flow, will be limited. The course is structured to give students a background in the diverse field of water resources and help prepare them for future careers in water supply, wastewater, floodplain, stormwater, and groundwater management. D

CE 4431 Advanced Mechanics of Solids: 3 semester hours.

An introduction to elasticity, plasticity, and energy foundations, stability, plates. PREREQ: CE/ME 3350 and MATH 3360. F

CE 4434 Geotechnical Design: 3 semester hours.

Application of soil mechanics to design of foundations, retaining wall, stable slopes, buried conduits and pavement structures. Computer methods utilized. PREREQ: CE 3350/ME 3350 and CE 3332 with minimum grade of C-. F

CE 4435 Hydraulic Design: 3 semester hours.

Hydraulic design of water control and transport structures, pipelines, and distribution systems. Computer methods utilized. PREREQ: Minimum grade of C- in CE 3341 or ME 3341. F

CE 4436 Transportation Engineering: 3 semester hours.

Fundamentals of earthwork, route location, drainage, and pavement materials with application to geometric and pavement design of highways, streets and rural roads. PREREQ: CE 3301, CE 3337, and CE 3367. S

CE 4438 Foundation Engineering: 3 semester hours.

Advanced geotechnical analysis and performance of shallow, driven pile and drilled shaft foundations (including lateral loads and seismic bearing capacity), braced excavations, retaining walls, dynamic slope stability, soil-structure interaction and soil liquefaction. PREREQ: CE 3332, CE 3337 and CE 4434. D

CE 4454 Basic Engineering Geology: 3 semester hours.

Geology applied to civil engineering projects; rock engineering classification systems and geotechnical parameters such as joint set orientation, ground behavior and underground construction. Preparation of baseline geotechnical reports. Equivalent to GEOL 4454. PREREQ or COREQ: GEOL 3314 or CE 3332. D

CE 4455 Geologic Data Methods: 3 semester hours.

Geotechnical investigations for civil works projects; geologic mapping for civil engineering purposes; development of engineering geologic profiles; core logging; preparation of Geotechnical Data Reports for civil works projects. Equivalent to GEOL 4455. PREREQ: CE 4454 or GEOL 4454. D

CE 4460 Project Management: 3 semester hours.

Knowledge, techniques and tools for management of civil, electrical, mechanical and environmental engineering projects and firms. Topics include contract organization/interpretation; project responsibility/authority; cost estimating; scheduling; quality control; construction safety; environmental requirements and project closeout. Examples from actual construction projects used as teaching aids. PREREQ: CE 3360 or CE 3361. D

CE 4462 Design of Steel Structures: 3 semester hours.

Design of steel members and connections with emphasis on the AISC specifications. PREREQ: CE 3362. OS

CE 4464 Design of Concrete Structures: 3 semester hours.

Design of reinforced concrete beams, columns, and slabs. Introduction to prestressing. PREREQ: CE 3362. ES

CE 4465 Design of Prestressed Concrete Structures: 3 semester hours.

Basic concepts in prestressed concrete design, full versus partial prestressing, flexural design, ultimate load design, beams with constant and variable tendon eccentricity, design of reinforcement for shear and torsion. PREREQ: CE 4464. F

CE 4466 Design of Wood Structures: 3 semester hours.

Design of solid and laminated wood members and connections. Includes the design of wooden diaphragms for resisting lateral loads. PREREQ: CE 3362. D

CE 4467 Structural Engineering Laboratory: 1 semester hour.

Measurement of stresses and load distribution through concrete, steel and wood components and structures. Design of experiment. PREREQ: CE 3362. S

CE 4468 Behavior of Composite Materials: 3 semester hours.

Macro and micromechanical behavior of laminae and laminates; bending, buckling and vibration of laminated beams and plates. PREREQ: CE/ME 3350 and MATH 2240. D

CE 4475 Essentials of Geomechanics: 3 semester hours.

Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Equivalent to GEOL 4475. PREREQ: GEOL 4421 or CE/ME 3350. D

CE 4476 Engineering Geology Project: 1 semester hour.

Team projects studying actual problems in engineering geology. Equivalent to GEOL 4476. PREREQ: GEOL 4454 or CE 4454. D

CE 4480 Earthquake Engineering: 3 semester hours.

Topics include: mechanism and characterization of earthquakes; seismic risk analysis; site and structural response; applications from points of view of engineer and geologist. PREREQ: GEOL 3313, CE 3332, or permission of instructor. D

CE 4481 Independent Problems: 1-3 semester hours.

Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. Equivalent to ENGR/EE 4481. PREREQ: Permission of instructor. D

CE 4496A Project Design I: 3 semester hours.

Semester one of a two semester sequence dealing with the conceptual design of multi-disciplinary projects requiring multi-disciplinary teams. PREREQ: COMM 1101, CE 3361, CE 3362, CE 3341, CE 3301, CE 3332, CE 3337, CE 3366, CE 3367 and CE 3351 or CE 4462 or CE 4464 or CE 4435 or CE 4434 or ENVE 4408. F

CE 4496B Project Design II: 3 semester hours.

Continuation of design sequence dealing with the design, analysis, implementation, and consequences of multi-disciplinary projects. PREREQ: CE 4496A. S

CE 4499 Experimental Course: 1-3 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Civil Engr Tech (CET)

Courses

CET 0110 Applied Mathematics I: 3 semester hours.

Algebra, equations and word problems, functions and graphs, geometry, right triangle trigonometry and vectors, factoring and fractional equations. Emphasis on using scientific calculator. Math will be applied to practical lab and field work when possible. F

CET 0111 Drawing with CAD: 3 semester hours.

A basic study of mechanical drawing with computer-aided-drafting emphasis. Instructional units include icon uses with layers, linetypes and colors, editing drawings, coordinate usage, polylines, text; hatching, dimensioning, multiview, and layout. Equivalent to GEMT 1111. F

CET 0112 Beginning Survey: 3 semester hours.

Introduction to surveying, measurements and computations, basic mathematics for surveying, measuring horizontal distances, principles and procedures of leveling, measuring angles and direction. F

CET 0115A Materials Testing I: 4 semester hours.

This course will introduce students to testing procedures for testing aggregate, soils, embankment and base, and nuclear densometer. Students will prepare for three Level I certifications through Western Alliance for Quality Transportation Construction (WAQTC). F

CET 0120 Applied Mathematics II: 3 semester hours.

A continuation of CET 0110 Applied Mathematics I studying oblique triangle trigonometry and vectors; radians, arc length, and rotations; exponents and radicals; quadratics equations; ratio and proportion, with emphasis on areas relating to Civil Engineering Technology. PREREQ: CET 0110. S

CET 0121 Civil Engineering Technology Drafting: 3 semester hours.

Civil Engineering Technology drafting, municipal and rural maps and drawing, drainage applications, plan and profile drawings, cross-sections, earthwork plats, legal descriptions, contour, quantity calculations, and other details relating to civil engineering technology drawings. Computer-aided-drafting (CAD) is used for drawings. Equivalent to GEMT 1121. PREREQ: CET 0111/GEMT 1111. S

CET 0122 Intermediate Surveying and Spatial Analysis: 3 semester hours.

Introduction to horizontal control surveys, topographic surveys and maps, horizontal and vertical curves, construction surveying, and basic photogrammetry. PREREQ: CET 0112. S

CET 0125A Materials Testing II: 4 semester hours.

This course will introduce students to testing procedures for Portland Cement Concrete and nuclear densometer. Students will prepare for two Level II certifications through Western Alliance for Quality Transportation Construction (WAQTC) and one Level I certification through American Concrete Institute (ACI). PREREQ: CET 0115A. S

CET 0216 Route Survey and GPS Fundamentals: 3 semester hours.

Study of route surveying and route locations; circular, spiral, and parabolic curves as applied to highway design. Field data will be collected using GPS equipment. Plans will be drawn using CAD and survey/engineering software. PREREQ: CET 0122. F

CET 0226 Construction Surveying: 3 semester hours.

Operations in construction surveying. Construction staking procedures and use of data collection software. PREREQ: CET 0216. S

CET 0228 Principles of GIS: 3 semester hours.

Study of GIS fundamentals, introduction to GPS, databases, and metadata. Practical application of ESRI ArcView. Build, edit, and query a GIS; basic spatial analysis. Requires competence in computer operating systems. PREREQ: CET 0120. S

CET 0232 Plan Reading and Worksite Safety: 3 semester hours.

Introduction to reading plans and interpreting specifications for quality assurance, estimating material quantities, and as-built verification. Safety considerations related to construction and work sites will also be discussed. F

CET 0243 Public Works: 3 semester hours.

Introduction to the systems, operation, and maintenance of public utilities including water, wastewater, stormwater, and solid waste. F

CET 0250 Unmanned Aerial Systems/Imagery Analysis: 3 semester hours.

This course will introduce the students to the basic operation and uses of unmanned aerial systems. This course will teach students imagery interpretation principles, give them an understanding of the different roles of imagery analysts in an operational environment. Students will receive hands-on operational experience through mission planning, simulation, collecting images and image manipulation using GIS principles. Equivalent to UAS 0250.

CET 0251 Introduction to Legal Descriptions: 1 semester hour.

Covers principles of interpretation of land descriptions as found on deeds and plats. S

CET 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

CET 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

CET 0299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Comm and Rhetorical Studies (COMM)

Courses

COMM 1101 Fundamentals of Oral Communication: 3 semester hours.

Basic course in oral communication that emphasizes the theory and practice of informative speaking, logical argumentation, persuasion, small group discussion, and interpersonal communication. Designed to explain the humanistic nature of human communication and to improve a student's ability to express ideas orally. Satisfies Objective 2 of the General Education Requirements. F, S

Comm, Media, and Persuasion (CMP)

Courses

CMP 1110 Media Writing: 3 semester hours.

A practical introduction to writing for the mass media. Students develop interviewing skills, reporting techniques, and the proper form and style for crafting basic news stories. F, S

CMP 2201 Business and Professional Communication: 3 semester hours.

Advanced speech course emphasizes practical speaking needs of business and professional people. PREREQ: COMM 1101. F, S, Su

CMP 2202 Photo, Graphic, and Video Editing: 3 semester hours.

An introduction to photographic, graphic design, and non-linear video editing skills. The course is designed to prepare students for more advanced courses in any of these specific areas. Students will learn how to apply multimedia production applications including professional industry standard photo, graphic, and video editing software. F, S

CMP 2203 Media Literacy: 3 semester hours.

A broad survey of the foundations of the mass media through critical and theoretical perspectives, with particular attention devoted to how economic structures influence media content, the impact of technological innovation, and the proper evaluation of media sources. Topics include how the media manufacture stories, differences between various print and electronic sources of information, recognizing media bias, and different types of media polling. Satisfies Objective 8 of the General Education Requirements. F, S

CMP 2205 Argumentation: 3 semester hours.

Study of argument, analysis, evidence, reasoning, fallacies, briefing, and delivery. Satisfies Objective 7 of the General Education Requirements. F

CMP 2209 Persuasion: 3 semester hours.

Advanced theory and performance course emphasizing principles of message composition and methods affecting attitude change in public communication. F, S

CMP 2231 Introduction to Graphic Design: 3 semester hours.

Introduction to the field of graphic design. Design history, design movements, materials and design programs will be explored to give students a well-rounded glimpse into the field of graphic design. Lectures, demonstrations, projects and discussion are designed to help students articulate ideas and understand the fundamental elements and principles of graphic design while using correct terminology pertinent to the field. F, S

CMP 2241 Introduction to Public Relations: 3 semester hours.

Provides background in the history, scope, ethics, and functions of the public relations field. Particular attention given to understanding of publics and ways of gaining public support for an activity, cause, movement, or institution. F

CMP 2250 History and Appreciation of Photography: 3 semester hours.

Discovery of the photographic process and its evolution to present. Analysis of many recognized masters of photography. Equivalent to ART 2210. Partially satisfies Objective 4 of the General Education Requirements. F, S

CMP 2251 Introduction to Photography: 3 semester hours.

Introduction to the fundamentals of digital camera use, and important techniques such as light and composition. The use of photography as an artistic and expressive medium is explored through assignments. Class consists of lectures, demonstrations, and group critiques. Students must have own digital camera with manual controls. F, S

CMP 2261 Introduction to Advertising: 3 semester hours.

In-depth study of the various aspects of advertising including agencies, media, clients, suppliers, creativity in advertising, consumers, ethics and law, strategy, and culture. F

CMP 2271 Television and Video Production: 3 semester hours.

Emphasis on studio and remote video production, with exercises in basic camera operation, electronic editing, studio directing, field production, and online distribution. PREREQ: CMP 2202. S

CMP 2286 Visual Rhetoric: 3 semester hours.

Introduction to visual media. Students will be introduced to theories explaining the persuasive function of images and apply these approaches in a variety of contexts such as images in political cartoons, film, television, and print. F, S

CMP 3302 Image Management: 3 semester hours.

Explores the management of public images of individuals (politicians, athletes, celebrities, teams, and corporations) during times of crisis and success. This course examines and evaluates the rhetorical strategies used in many contemporary situations of crisis and success. S

CMP 3305 Intercollegiate Debate: 1-3 semester hours.

Students prepare for regional- and national-level intercollegiate debate tournament competition. May be repeated for up to 8 credits. PREREQ: Debate team member. F, S

CMP 3307 Social and Interactive Media Campaigns: 3 semester hours.

An introduction to the theory and skills required to develop, manage, and analyze social media campaigns. Students will gain hands-on experience with a variety of digital tools and social networking platforms, evaluate current industry best practices and standards, analyze the role of social media in society, and develop interactive campaigns. F

CMP 3308 Groups and Communication: 3 semester hours.

Examines the process of human communication among members of organized groups. Topics studied include leadership development, norms, roles, cohesion, problem-solving techniques, and conflict. F

CMP 3309 Communication Inquiry: 3 semester hours.

Introduces tools and strategies communication professionals use to answer questions and solve problems through systematic investigation. The course will focus on developing an understanding of applied communication research, including design, sampling, data collection, and data analysis. S

CMP 3310 Multiplatform Storytelling: 3 semester hours.

This course provides hands-on experience in blogging, podcasting, and screenwriting. Students will learn how to target market demographics, develop content, and pitch ideas to online, television, film, and video game industries. PREREQ: CMP 1110. S

CMP 3311 Business and Political Reporting: 3 semester hours.

Develops journalistic skills for covering issues related to business and public affairs. Students will learn how to gather and interpret data as well as report on entrepreneurship, finance, government, and politics. Reporting styles covered include print, online, and broadcast media. PREREQ: CMP 1110. F

CMP 3312 Screenwriting: 3 semester hours.

A guide to the fundamentals of story structure, script formatting, and punchy dialogue, this course covers how to create genre-specific movies and television/streaming series. Students simulate the experience of working in the entertainment industry by pitching ideas and writing scripts, using specialty software available in the classroom. F

CMP 3320 Foundations of Leadership: 3 semester hours.

Introductory exploration of the modern dimensions of leadership. Students will link current theory and practices to personal self-assessment and behavioral applications. F

CMP 3332 3-D Modeling and Design: 3 semester hours.

A studio course in the application and technique of three-dimensional (3D) digital modeling utilizing industry standard software. Topics include the creation and modification of 3D forms, surface mapping, rendering and 3D printing. Equivalent to ART 3330. F

CMP 3333 Virtual Reality Environments: 3 semester hours.

A studio course in the application and technique of three-dimensional (3D) digital animation utilizing industry standard software. By utilizing the 12 principles of animation, the static will be transformed into life. Equivalent to ART 3333. PREREQ: Instructor Approval. S

CMP 3336 Studio I: Typography and Digital Media: 3 semester hours.

An introduction to the study of letter forms for their aesthetic and communicative value. Typographic fundamentals of alphabet history, type classification, printing technology effects, font design, visual space, hierarchy and grid systems will be explored. Critique and individual discussion focused on developing typographic refinement and attention to detail. Special focus on design for the screen, current trends in typography, and an introduction into motion graphics. PREREQ: CMP 2231 S

CMP 3338 Studio II: Typography and Print Media: 3 semester hours.

An intermediate study of typography for its aesthetic and communicative value. Context effects on legibility and readability, type as image, type in sequence and typographic systems will be explored. Critique and individual discussion focused on developing typographic refinement and attention to detail. PREREQ: CMP 2231 and CMP 3336. F

CMP 3339 Web Design: 3 semester hours.

A communicative approach to strategies and tools for web publishing with a focus on both practical and aesthetic contexts. Exploration of ethics, current practices, purposes, styles, genres, and directions in authoring for the World Wide Web. PREREQ: CMP 2202 or permission of instructor. RECOMMENDED: CMP 2231. F, S

CMP 3346 Public Relations Writing: 3 semester hours.

Development of professional writing disciplines and skills expected of PR practitioners through exploration of various forms of public relations writing such as press releases, statements, public service announcements, media correspondence, media advisories, newsletter articles, fact sheets, and talking points. PREREQ: CMP 1110 and CMP 2241. F

CMP 3347 Sport Communication: 3 semester hours.

This course is designed to define and expand student perceptions of "sport communication" by covering concepts, skills, and vocabulary used in the field. Upon completion, students should have a broad understanding of how sport communication functions in a variety of areas and the influences and diversity of voices in the discipline. F

CMP 3352 Photo Communication: 3 semester hours.

Application of still photographic methods to newspaper, magazine, and advertising/public relations needs. Introduction to computer manipulation of images. PREREQ: CMP 2202 and CMP 2251, or permission of instructor. F

CMP 3355 Studio Photography: 3 semester hours.

This class will provide an experience in directed photographic visual communication in the studio environment. Students will gain an understanding of the studio setting through applied theory. Additionally, students will concentrate on problem solving skills and complete a variety of assignments that are designed to challenge their skills in lighting, camera operation, and visual interpretation. PREREQ: CMP 2202, CMP 2251, and CMP 3352, or permission of instructor. S

CMP 3365 Advertising Strategy and Copywriting: 3 semester hours.

Overview of basic creative skills, with emphasis on how to write and develop strategic creative advertising messages for print, radio, television, and the Internet. Students begin to develop a marketing communication portfolio. PREREQ: CMP 2261 and CMP 2231, or MKTG 2225. F

CMP 3367 Advertising Media Planning: 3 semester hours.

Selecting and evaluating media for marketing communication campaigns. Media characteristics, media markets and comparisons, audience and product usage. Elements of a strategic media plan. Trends in mass communication media. PREREQ: CMP 2261 or MKTG 2225. S

CMP 3371 Narrative Video Production: 3 semester hours.

Narrative video is the study and execution of videos that tell stories. We study the basic components of the narrative arc in storytelling, then create videos, fiction and/or non-fiction, exemplifying these ideas. Students should know the fundamentals of scripting, shooting, and editing and be ready to apply those skills to become audio/video storytellers. F

CMP 3373 Documentary Cinema: 3 semester hours.

This course acts as a survey of documentary film narratives and techniques via the study of contemporary programming in the genre. Specifically, theatrical, television, and streaming releases will be synthesized for ideas unique to this nonfiction form of filmmaking whose practical uses span from the political to the quiet and observational. Production and storytelling processes will be practically examined alongside isolated texts examining authorial voice, ethics, censorship, and the subjective vs. objective lens in documentary storytelling. S

CMP 3375 Television Programming: 3 semester hours.

TV Programming teaches students how to create a TV program, such as a newscast, comedy show, sportscast or even a drama from the ground up. Students will brainstorm show ideas, organize those ideas into a timed rundown that outlines the final product, prepare assets and segments, and produce the program in a live studio environment. PREREQ: CMP 1110, CMP 2202, and CMP 2271; Suggested: CMP 3310. F

CMP 3382 Political Communication: 3 semester hours.

This course identifies and examines what constitutes effective communication in American politics, ranging from an analysis or rhetorical discourse in presidential oratory to contemporary media strategies employed in both election campaigns and social movements. F

CMP 3383 Activism and Social Change: 3 semester hours.

This course examines the strategies, tools, and tactics used in social movements, especially as movements adapt to different media environments. Students study domestic and international examples from the past and present to understand how media is used to spread information, raise awareness, organize resistance, and document events. S

CMP 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

CMP 4403 Mass Communication and Society: 3 semester hours.

Introduces students to mass media theories scholars use to study the effects of media messages. Students will also read and discuss research illustrating the media's impact on individuals, society, and cultures. Topics include the media's relationship to stereotyping, images of sexuality, violence, values, politics, and globalization. S

CMP 4404 Gender and Communication: 3 semester hours.

Course examines communication arenas from a perspective that focuses on gender and includes study of similarities and differences in female/male patterns. Topics include nonverbal, organizational, language, family, and friendship. F

CMP 4410 Mass Media History, Law, and Ethics: 3 semester hours.

A comprehensive exploration of mass communication law and the history of mass media. The course examines media rights of free expression and First Amendment including libel privacy, access to information, free-press, and other related topics and themes. F

CMP 4418 Feature Writing: 3 semester hours.

Develops feature reporting and writing skills for magazines and web publications. Students examine classic, exemplary works of journalism and gain experience creating feature profiles, sports and travel articles, restaurant reviews, and Gonzo-style investigations. PREREQ: CMP 1110. S

CMP 4420 Advanced Leader Communication: 3 semester hours.

Advanced exploration of the vital relationship between communication and leader effectiveness with a focus on particular communication tools and strategies. S

CMP 4422 Conflict Management: 3 semester hours.

Examines the dynamics of everyday conflicts across a variety of settings, from personal to organizational. Principles of conflict, similar across all communicative contexts, are emphasized. Theory and its application are given equal importance. F

CMP 4437 Illustration and Brand Identity: 3 semester hours.

Introduces business strategies and design techniques associated with brand development. Emphasis is placed on methods of thinking, research and implementation. Through demonstrations, theory and practical application, students are also introduced to numerous media and illustrative techniques to support their portfolio and branding. Encouraged experimentation is tempered by an understanding of problem solving and conceptualization. PREREQ: CMP 2231. F

CMP 4438 Graphic Design Portfolio: 3 semester hours.

Career development strategies are honed with preparation through lectures, demonstrations and studio work. Existing projects are analyzed, refined and gaps in the student's body of work are filled with new, systematic outcomes. All work must meet professional standards with emphasis on quality and job-related subject matter. Focus is placed on solidification of the portfolio for employment and/or graduate school. This course is strongly recommended for the spring semester of senior year. PREREQ: CMP 2231, CMP 3336, CMP 3338, and CMP 4437 or permission of instructor. S

CMP 4440 Sport Public Relations: 3 semester hours.

Examines public relations theories and skills relevant to sport. Emphasizes image management; media and community relations; critical analysis of campaigns; and written and oral presentation skills necessary for sport public relations specialists. S

CMP 4446 Public Relations Campaigns: 3 semester hours.

Tactics and strategies for planning public relations campaigns for public and private organizations. PREREQ: CMP 3346. S

CMP 4457 Advanced Photography: 3 semester hours.

Explores photographic concepts as they relate to visual storytelling for use within a multi-media business environment. We will investigate the idea of the photographer's intent in regards to crafting color and B&W images into a visual story. Further, we will examine the elements and decisions required for printing a professional portfolio and establishing professional business goals. Additionally, each student will create a body of cohesive images suitable for use as a professional portfolio or a traditional art exhibit. PREREQ: CMP 2202, CMP 2251 and CMP 3352, or permission of instructor. F

CMP 4460 National Student Advertising Competition: 3 semester hours.

Students work as a team to apply persuasive mass communication principles to solving a real-world marketing communication problem for a client provided by the AAF/NSAC. May be repeated for up to 9 credits. PREREQ: Permission of instructor. COREQ: Membership in ISU AAF. S

CMP 4465 Advertising Campaigns: 3 semester hours.

Capstone course; the development of an advertising campaign; includes situation analysis, research, strategy, and creation of the advertising. PREREQ: CMP 3365. S

CMP 4471 Advanced Video Production: 3 semester hours.

Senior Level Seminar allowing students to explore their own in-depth long form or "series of shorts" video production projects. Through a process of collaboration with fellow students and the instructor, students will follow the complete video production cycle from conception and scripting, to shooting and editing a quality production that showcases their skillsets. Also includes discussion of professional portfolios and reel development. May be repeated for up to 6 credits. PREREQ: CMP 2202, CMP 2271, and CMP 3371 or CMP 4475 or permission of instructor. S

CMP 4475 Corporate Video Production: 3 semester hours.

Producing for corporate, educational, home video, documentary and other nonfiction markets. Advanced production techniques. Major project required. PREREQ: CMP 2202 and CMP 2271 or permission of instructor. S

CMP 4483 Rhetoric of Popular Culture: 3 semester hours.

Explores the functions of rhetoric in popular culture mass media including news, television, film, fiction, advertising, music, and the internet. Emphasizes understanding how rhetoric in these mediums reflects, influences, and interacts with the culture. S

CMP 4487 Rhetorical Theory: 3 semester hours.

Course provides students with the foundations of rhetoric by examining principal rhetorical theories from Classical, Medieval, Renaissance, Modern, and Contemporary eras. F

CMP 4488 Rhetorical Criticism: 3 semester hours.

Study and application of various theories and methods of rhetorical criticism including Aristotelian and Burkeian principles. S

CMP 4491 Independent Projects: 1-3 semester hours.

Under the supervision of professors in the various areas of communication, students will prepare reports and carry out projects designed to promote professional growth. May be repeated for up to 6 credits. PREREQ: Permission of instructor and department. F, S

CMP 4494 Internship: 1-3 semester hours.

Department approval required. Directed field experience with an approved agency. Learning contract required. May be repeated for up to 6 credits. PREREQ: Permission of instructor and department. F, S

CMP 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Comm Sciences and Disorders (CSD)

Courses

CSD 1126 Deaf Studies: 2 semester hours.

Survey of the field of Deaf studies, emphasizing Deafhood, the role of allies; oppression/discrimination and power/privilege; multiculturalism and diversity and cultural/cross-cultural dynamics. F, Su

CSD 1151 American Sign Language I: 3 semester hours.

In a visual-gestural environment, the basics of American Sign Language (ASL) are introduced without the presentation of English equivalents. Students learn information about the Deaf community and Deaf culture along with culturally-appropriate uses of the eyes and facial expression, which are critical conversation skills. ASL questions, commands, and other simple sentence structures are introduced. May be repeated once to improve a grade for a maximum of 3 credits. COREQ: CSD 1151L. Partially satisfies Objective 4 of the General Education Requirements. F, S, D.

CSD 1151L American Sign Language I Laboratory: 1 semester hour.

Assignments to apply principles from CSD 1151. COREQ: CSD 1151. F, S, D.

CSD 1152 American Sign Language II: 3 semester hours.

In this second of four courses in ASL, students continue to expand receptive (listening) and expressive (signing) skills while being taught in ASL. Pluralization, spatial referencing, pronominalization and basic depiction/blending are introduced. Fluency is improved and students learn more about the Deaf community and culture. Partially satisfies Objective 4 of the General Education Requirements. PREREQ: CSD 1151, CSD 1151L, or permission of instructor. COREQ: CSD 1152L. S, D

CSD 1152L American Sign Language II Laboratory: 1 semester hour.

Assignments to apply principles from CSD 1152. PREREQ: CSD 1151 and CSD 1151L. COREQ: CSD 1152. S, D

CSD 2205 Introduction to Professions in Communication Sciences: 3 semester hours.

Survey of speech, hearing, and language disorders, including study of the development of speech. Observations, films and assigned readings serve as illustrations of the various communication problems. S

CSD 2210 Human Communication, Differences, and Disorders through Literature and Media: 3 semester hours.

The purpose of this course is to foster knowledge of the importance of communication, and an awareness and acceptance of differences and disorders of communication. Students will explore communication differences and disorders as they are portrayed in media and literature, to consider the influence on public perception of communication differences/disorders. In completing the course, students will be better prepared to lead within a diverse culture of citizens. Satisfies Objective 9 of the General Education Requirements. S

CSD 2249 Fingerspelling and Numbers: 3 semester hours.

Application of techniques to receptive and expressive fingerspelling skills. Emphasis on whole-word and phrase recognition and on reading fingerspelling and numbers embedded in signed sentences. Multiple ASL number systems will be covered in this course along with self-care and needs of various consumers when fingerspelling. PREREQ: Permission of instructor. S

CSD 2250 Introduction to the Interpreting Profession: 3 semester hours.

Overview of the sign language interpreting profession, including: the impact of communication on the interpreting process; importance of diversity and respect in communities; self-care for interpreters; interpreting protocols; best practices and other major elements of the profession. In-depth examination of interpreter roles, functions and responsibilities. PREREQ: CSD 1151 and permission of instructor. S, D

CSD 2251 American Sign Language III: 4 semester hours.

Students are introduced to linguistic principles of ASL and a transcription system for recording and preparing dialogues and texts. Emphasis is on student-generated conversations. COREQ: CSD 2251L. PREREQ: CSD 1152, CSD 1152L, and Sign Language Studies major or permission of instructor. F

CSD 2251L American Sign Language III Laboratory: 0 semester hours.

Assignments to apply principles from CSD 2251. F

CSD 2252 American Sign Language IV: 4 semester hours.

Linguistic features of ASL are expanded, including inflection, spatialization, movement, redundancy, and use of facial expression and body posture. Emphasizes vocabulary development. COREQ: CSD 2252L. PREREQ: CSD 2251, CSD 2251L, and Sign Language major or permission of instructor. S

CSD 2252L American Sign Language IV Laboratory: 0 semester hours.

Assignments to apply principles from CSD 2252. S

CSD 2256 Deaf Culture and Community: 3 semester hours.

Emphasizes aspects of Deafhood and Deaf culture. Focus on identity, language impact, educational issues, and minorities within the Deaf culture and how these affect language and identity. Includes examination of Deaf culture as a world-wide experience and contrasts it with American Deaf culture. Fulfills Objective 9 of the General Education Requirements. PREREQ: CSD 1151 and CSD 1151L. S, D

CSD 2258 Language Acquisition in American Sign Language: 3 semester hours.

Focuses on theories on language acquisition and language development through American Sign Language. Issues of language deprivation and language equality are surveyed. PREREQ: CSD 1151 and CSD 1151L. S

CSD 3301 English Text Analysis: 3 semester hours.

A variety of English source texts are considered, including texts relevant to interpreting to improve English comprehension and expression. Ways to render culturally equivalent, accurate and linguistically equivalent interpretations of texts are explored. PREREQ: Acceptance into the Sign Language Interpreting Program or permission of instructor. F

CSD 3302 Specialized Terminology in English for Interpreters: 3 semester hours.

Students will learn specialized English terminology used in specific settings, i.e., medical, legal, academic, and legislative. Emphasis is on comprehension and application to the interpreting process. PREREQ: CSD 3301 with a B- or better or permission of instructor. S

CSD 3310 Speech Science: The Acoustical Nature of Sound and Speech: 3 semester hours.

Introduction to the nature and acoustical properties of sound and speech: generation, propagation, and modification. Explores speech production and characteristics of speech acoustics as they relate to typical and atypical speech production and perception. Speech production subsystems of respiration, phonation, articulation, and resonance are examined in detail through the analysis of acoustic and physiological data. Examines seminal and contemporary theories of speech production and perception, research findings, clinical applications, and measurement and analysis of typical speech and voice production and perception. F, D

CSD 3315 Clinical Processes Pediatric: 2 semester hours.

Assessment and treatment principles, methods, and procedures in speech language pathology with focus on the pediatric population. PREREQ: CSD 3321 and CSD 3330, or permission of instructor. S

CSD 3321 Clinical Phonetics and Phonology: 3 semester hours.

Basic concepts in applied phonetics and phonology, emphasizing applications in communication disorders and differences. Introduction to International Phonetic Alphabet. COREQ: CSD 3321L. F

CSD 3325 Speech Sound Development and Disorders: 3 semester hours.

Introduction to childhood speech development and disorders. Basic clinical principles and procedures for diagnosis and treatment of disorders of speech sound production. PREREQ or COREQ: CSD 3325L. PREREQ: CSD 3321 with a grade of 'C' or better or permission of instructor. S

CSD 3325L Speech Sound Development and Disorders Lab: 1 semester hour.

Required laboratory portion of CSD 3325 for emphasis in pre-speech-language pathology. Skill development in use of International Phonetic Alphabet in the transcription of typical and disordered speech. PREREQ or COREQ: CSD 3325. PREREQ: CSD 3321 with a grade of 'C' or better or permission of instructor. S

CSD 3330 Language Science: 3 semester hours.

Introduction to the nature, structure and function of language with an emphasis on the structure of the English language. Includes an introduction to language analysis and language diversity. D

CSD 3331 Translation: 3 semester hours.

Translation theories and techniques for sight and frozen-text (e.g., video) sources are analyzed and applied in meaning transfer. Special attention to genre, register, culture and avoidance of source language interference. PREREQ: Admission to the Sign Language Interpreting program. F

CSD 3332 Consecutive Interpreting: 3 semester hours.

Practice in and application of consecutive interpreting techniques. Students will apply theory to consecutive interpreting and discuss the implications of this form of interpreting on interpreter roles, responsibilities and with a variety of consumers. Protocol and appropriate settings for this approach are reviewed in simulated interpreting scenarios. PREREQ: CSD 3331 with a B- or better or permission of instructor. S

CSD 3335 Language Development and Disorders: 3 semester hours.

Study of the development of phonology, morphology, semantics, syntax, pragmatics and relevant nonverbal and cognitive aspects of language. Review of current theories and research. Includes etiology and characteristics of primary, secondary and acquired language disorders in children. PREREQ: CSD 3330 or permission of instructor. S

CSD 3340 Communication Development and Disorders: Lifetime Perspective: 3 semester hours.

An overview of speech and language development across the lifespan and a survey of speech and language disorders. The course will focus on how communication development and disorders may impact services provided by audiologists and other health professionals. Class intended for students not pursuing a speech language pathology graduate degree. D

CSD 3341 Audiometry and Hearing Science: 3 semester hours.

Introduction to basic hearing science, sound measurement, audiometry, tympanometry, hearing disorders, public school screening, and methods of aural rehabilitation. Review of role of audiology in human services. S

CSD 3345 Ethics and Decision-Making for Interpreters: 3 semester hours.

Students engage in exploration of their current ethical framework, learn important ethical codes for interpreters and apply these to the essential dispositions for interpreters. Students learn the elements of the Demand-Control Schema framework and how it can be employed to aid in decision-making. PREREQ: Admission to the Sign Language Interpreting program. F

CSD 3346 Specialized Settings and Scenarios in Interpreting: 3 semester hours.

An introduction to interpreting techniques specific to specialized settings (e.g., working with DeafBlind consumers, healthcare, performing arts and educational settings) are discussed along with ASL techniques for accurate interpreting of expository pieces, poetry and other genres. PREREQ: Permission of instructor. S

CSD 3350 Anatomy & Physiology of the Speech and Swallowing Mechanisms: 3 semester hours.

Introduction to the anatomy and physiology of speech production and swallowing. Examination of structures and functions related to respiration, phonation, resonance, articulation, mastication, and deglutition. Focus on typical structures and processes and atypical structure and processes in populations with speech and swallowing disorders. CO-REQ: CSD 3350L. S, D

CSD 3350L Anatomy & Physiology of the Speech and Swallowing Mechanisms Lab: 1 semester hour.

Required corequisite laboratory portion of CSD 3350 Anatomy & Physiology of the Speech and Swallowing Mechanisms. CO-REQ: CSD 3350. S, D

CSD 3351 Linguistics of American Sign Language: 3 semester hours.

Introduction to linguistics and the application to American Sign Language. Topics covered include: phonology, morphology, syntax, and semantics of ASL. Advanced comprehension and expression of ASL addressed in presentations and sessions with language mentors. PREREQ: CSD 2252 or permission of instructor. F, D

CSD 3352 Depiction in American Sign Language: 3 semester hours.

Advanced ASL students learn the elements of depiction, blending and constructed dialogue/action in ASL and how these elements are used as visual representations of aspects of an entity, event, or abstract concept. PREREQ: CSD 3351 with a B- or better or permission of instructor. S

CSD 3374 Service Learning in the Deaf Community: 1 semester hour.

In collaboration with the members of Deaf community, students will demonstrate knowledge of and apply human relations and professionalism competencies in a service-learning project. Students will apply critical and reflective thinking skill and participation in the Deaf community. They will demonstrate fulfillment of their professional and civic responsibilities as interpreters while participating in a community partnership. PREREQ: CSD 3346 D

CSD 4401 Research and Interpreting: 3 semester hours.

Students will read, understand, and critically evaluate research on interpreting. Students are given the opportunity to present research conducted by other researchers and original research. After completion of this class, students will appreciate the link between interpretation research and the practice of interpreting as well as the value of research. PREREQ: CSD 3302 with a B- or better or permission of instructor. F

CSD 4405 Neuroscience for Communication Disorders: 3 semester hours.

Fundamentals of neuroanatomy and physiology related to speech, language, and hearing. Introduction to communication disorders related to neurological damage. F

CSD 4415 Clinical Practicum in Audiology: 1-2 semester hours.

Supervised experience in the evaluation, (re)habilitation, and counseling of persons with hearing disorders. Students will also participate in weekly clinical staffing. May be repeated for up to 6 credits. PRE-or-COREQ: CSD 4416. F, S

CSD 4416 Audiology Methods and Applications: 1 semester hour.

Introductory training and experience in audiologic clinical procedures. PREREQ: Completion of CSD 3341 and permission of instructor. F

CSD 4417 Interdisciplinary Evaluation Team: 1 semester hour.

Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Equivalent to DHS 4417, NURS 4417, PSYC 4417, and SOWK 4417. PREREQ: Permission of instructor. S

CSD 4420 Clinical Processes Adult: 2 semester hours.

Assessment and treatment principles, methods and procedures in speech language pathology with focus on the adult population. PREREQ: CSD 3315. F, Su

CSD 4425 Speech Language Pathology Methods and Application: 2 semester hours.

Application of assessment and treatment principles, methods, and procedures in clinical and language disorders through classroom experiences, observation, and clinical experiences. For CSD majors only. PREREQ: CSD 3315, CSD 3325, CSD 3335, and CSD 4420 or permission of the instructor. S

CSD 4431 Simultaneous Interpreting: 3 semester hours.

Approaches to and practice in simultaneous interpreting are employed. Strategies for information chunking and management, effort management, processing time and message equivalences are explored. SI is applied in simulated interpreting scenarios. PREREQ: CSD 3331 with a B- or better or permission of instructor. F

CSD 4432 Senior Seminar in Interpreting: 6 semester hours.

Intensive interpreting practice during in-class and simulated interpreting scenarios. Application of mechanics and theory of: team interpreting; interpreting protocols in different environments; working in deaf/hearing teams; and the impact of ethical codes on interpreting decisions. PREREQ: CSD 4431 with a B- or better or permission of instructor. S

CSD 4440 Special Topics Workshop: 1-3 semester hours.

Presentation of professionally related topics in workshop format. Meets for a minimum of 16 contact hours per credit with appropriate outside assignments, readings, or papers. May be repeated for up to 6 credits. Graded S/U. D

CSD 4441 Professional Interpreting Practice and Relationships: 3 semester hours.

Practice and application of ethical guidelines and standards of conduct expected of a professional interpreter. Discusses theoretical issues involved in interpreting as a profession. Business practices and relationships are addressed. PREREQ: CSD 3345 with a B- or better or permission of instructor. F

CSD 4445 Aural Rehabilitation: 3 semester hours.

Aural rehabilitation of the hearing impaired. Consideration of amplification, speech reading, auditory training, and other aspects of the process. F, S, Su

CSD 4451 Advanced Discourse in American Sign Language: 3 semester hours.

Builds a strong foundation in discourse analysis through the use of materials developed by native users of ASL. Students will examine meaning and intent in the source language and replicate discourse found in specific genres and registers while learning advanced vocabulary. PREREQ: CSD 3351 with a B- or better or CSD 3352 with a B- or better or permission of instructor. F

CSD 4457 Interpreting in Community Settings: 3 semester hours.

In this survey of community settings, students learn the history of community interpreting, techniques specific to community settings and application of ethical codes to community settings. PREREQ: Admission to the Sign Language Interpreting program and permission of instructor. D

CSD 4458 Introduction to Interpreting in Healthcare Settings: 3 semester hours.

Principles of accurate interpretation in medical environments, healthcare systems, application of Demand-Control Schema to healthcare settings and ASL healthcare vocabulary are taught in this basic medical interpreting course. Students will examine their readiness and suitability for interpreting in healthcare settings. PREREQ: Admission to Sign Language Interpreter program and permission of instructor. D

CSD 4460 Educational Audiology: 3 semester hours.

Overview of school-based audiology services including working within the public school system and with related professionals, legal issues, and options for providing comprehensive services to children with hearing loss and their families. S, Su

CSD 4470 Field Observation and Theoretical Application of Interpreting: 2 semester hours.

Utilizing a generalist skill base, students will observe professional interpreters providing service; simulate provision of interpreting services in authentic settings and participate at events designed for professional development of interpreters. Analysis of scenarios will be conducted employing a demand-control schema framework. May be repeated for up to 8 credits. PREREQ: Permission of advisor. F, S

CSD 4474 Interpreting Internship: 8 semester hours.

To graduate from the sign language interpreting program, students must successfully complete an internship where they are placed with a mentor interpreter for at least 300 hours of documented preparation for, observation of, and actual interpreting under supervision. Students participate in weekly online discussions regarding the application of concepts they have learned during the program and are evaluated by their site supervisors/mentor interpreters. PREREQ: CSD 4431 with B- or better and permission of advisor. S

CSD 4480 Genetics for Health Care Professionals: 2 semester hours.

An in-depth, interdisciplinary review of the impact of genetics on patients and patient care and the biological, social, ethical and legal issues surrounding genetics and genomics. Equivalent to NURS 4480 and DHS 4480. Su

CSD 4482 Independent Study: 1-4 semester hours.

Study of problems selected by students and faculty. May be repeated for up to 8 credits. D

CSD 4491 Seminar: 1-4 semester hours.

Reading, preparation, and discussion of reports and projects in all areas of speech and hearing science, speech pathology, and audiology. May be repeated for up to 12 credits. D

CSD 4498P Professional Education Development: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

Community Paramedics (CPAR)

Courses**CPAR 3398 Special Topics: 1-3 semester hours.**

Addresses the special needs of the industry, enabling students to upgrade technical skills that are not included in the current program curriculum. Examines and analyzes selected topics in Community Paramedics. PREREQ: Paramedic license or certification. D

CPAR 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

CPAR 3400 Introduction to Community Paramedics: 2 semester hours.

Outlines various aspects of a Community Paramedic program, including the role of the CP within the healthcare team, communication skills, the Patient Care Centered Home and the societal, financial and cultural factors influencing healthcare. D

CPAR 3410 Introduction to Community Assessment: 1 semester hour.

Introduces the concepts of a community needs assessment and healthcare gap analysis; while identifying future local Community Paramedic clinical sites, partnerships and stakeholders. PREREQ: Paramedic License or Certification. D

CPAR 4410 Community Assessment: 2 semester hours.

Guides the student through the process of a community needs assessment. The student shall complete a gap analysis in their home community and create an effective resource map based upon their findings. PREREQ: Paramedic License or Certification. D

CPAR 4420 Pathophysiology for the Community Paramedic: 1 semester hour.

Expands on the pathological conditions of chronic conditions most commonly encountered in a primary care or hospital discharge perspective. PREREQ: Paramedic License or Certification. D

CPAR 4440 Community Paramedic Clinical Practicum: 3 semester hours.

Provides clinical experience opportunities which may include private practice, sub-acute specialties, mental health, home and public health. May include a portion of time in simulated laboratory sessions. PREREQ: Paramedic License or Certification. D

CPAR 4498 Special Topics: 1-3 semester hours.

Addresses the special needs of the industry, enabling students to upgrade technical skills that are not included in the current program curriculum. Examines and analyzes selected topics in Community Paramedics. Equivalent to EMS 4498. PREREQ: Paramedic License or Certification. D

CPAR 4499 Experimental Course: 1-6 semester hours.

The content of these courses is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Comparative Literatures (CMLT)

Courses**CMLT 2207 Contemporary European Culture: 3 semester hours.**

European culture in French, German, and Spanish-speaking countries is examined in terms of its historical bases and its contemporary expressions in customs, institutions, lifestyles, literature, art, and music. Taught in English. Satisfies Objective 9 of the General Education Requirements. D

CMLT 2208 Cultures of the Spanish Speaking World: 3 semester hours.

Topics in art, history, literature and film of Spain, Spanish-America and Latino USA. Taught in English. Satisfies Objective 9 of the General Education Requirement. D

CMLT 2209 Cultures of East Asia: 3 semester hours.

Overview of the cultures of China, Japan, and Korea, intended to help the student understand each within the framework of East Asian civilization, their historical importance and the crucial role they play in the world today. Satisfies Objective 9 of the General Education Requirements. D

CMLT 2220 Introduction to International Film Studies: 3 semester hours.

An introduction to the world of international film and the cultural, historical, and artistic issues the art form embodies. Focus on interpretations of nationality and multiculturalism through the medium of film. D

CMLT 3335 World Film Studies: 3 semester hours.

Based on the premise of film as text. Examines the creative process, aesthetic principles, and historical background, through the screening of representative films and the reading of theory and critical analysis of European, Francophone, African, and Latin American cinema. Taught in English. PREREQ: Permission of instructor. D

CMLT 3360 Critical Theory: 3 semester hours.

The application of critical theory to the reading of world literature. Taught in English. PREREQ: ENGL 1102. D

CMLT 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

CMLT 4415 Studies in National Literatures: 3 semester hours.

Studies in important literatures and cultures not covered by regular course offerings. May include literatures in translation and literature written in English outside of America and the British Isles. Equivalent to ENGL 4455. May be repeated for up to 6 credits with different content. D

CMLT 4435 Topics in World Film Studies: 3 semester hours.

Rotating topics in world film studies. Consult Class Schedule for topic being taught. May be repeated with different content. PREREQ: Permission of instructor. D

CMLT 4488 Comparative Literature Seminar: 3 semester hours.

Advanced work in the areas of cultural studies, literature, and research methods. May be conducted in English. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

CMLT 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Computer Aided Design (CADD)

Courses

CADD 0101 Drafting Technology Theory I: 2 semester hours.

Basic drafting fundamentals and theory. Includes lettering, linework, spatial visualization, multiview drawings, sections, auxiliaries, dimensioning, and notation. COREQ: CADD 0108 and CADD 0109. F

CADD 0108 Introduction to CAD: 4 semester hours.

Basic CAD skills taught in the 2-D AutoCAD environment to include computer skills, drawing environment, annotation, shape creation and manipulation, and plotting. COREQ: CADD 0101. F

CADD 0109 Drafting Applied Algebra: 2 semester hours.

Algebraic solutions, word problems, equations and graphing concepts, ratio and proportion, and metric system relating to design drafting applications. PREREQ: TGE 0100A, MATH 0025, or equivalent. F

CADD 0111 Drafting Technology Theory II: 2 semester hours.

Additional drafting fundamentals and theory to include size tolerancing, isometric projection, welding symbology, gearing, threads and fasteners, manufacturing processes, and axonometric projection. PREREQ: CADD 0101. COREQ: CADD 0108. F

CADD 0119 Drafting Applied Descriptive Geometry: 2 semester hours.

Descriptive geometry applications related to design drafting explored. PREREQ: CADD 0109 or CADD 0209. F

CADD 0121 Mechanical Drafting Technology Theory I: 2 semester hours.

Drafting theory of welding symbology, geometric dimensioning and tolerancing, working drawings, assemblies, piping concepts, advanced dimensioning and tolerancing principles. Introduction to fundamentals of flat pattern layouts and 3D modeling. PREREQ: CADD 0111. COREQ: CADD 0122. PREREQ or COREQ: CADD 0129. S

CADD 0122 Mechanical Drafting Technology Lab I: 3 semester hours.

Apply Mechanical Drafting Technology Theory I including welding symbology, geometric dimensioning and tolerancing, working drawings and 3D modeling using CAD systems with emphasis on drawing details, assemblies, and subassemblies. Applications of advanced dimensioning and tolerancing principles, flat pattern layouts, revolutions, and piping. PREREQ: CADD 0108. COREQ: CADD 0121. S

CADD 0129 Drafting Applied Analytic Geometry: 2 semester hours.

Analytic geometry applications including intersections and revolutions. Solutions of problems relating to design drafting are emphasized. PREREQ: CADD 0119. S

CADD 0137 Mechanical Drafting Technology Theory II: 2 semester hours.

Instruction in drafting theory including advanced instruction in parametric 3D modeling using CAD systems. PREREQ: CADD 0121. COREQ: CADD 0138. PREREQ or COREQ CADD 0139. S

CADD 0138 Mechanical Drafting Technology Laboratory II: 3 semester hours.

Apply Mechanical Drafting Technology Theory II including application of Parametric Modeling Theory to create parametric 3D models using CAD systems. PREREQ: CADD 0122. COREQ: CADD 0137. S

CADD 0139 Drafting Applied Trigonometry: 2 semester hours.

Applications and solutions in trigonometry and vectors relating to design drafting. PREREQ: CADD 0129. S

CADD 0207 Architectural Design Theory I: 2 semester hours.

Fundamentals of residential architectural design, floor plans, elevations, room layout, aesthetic design, site plans, Universal Design, the National CAD Standard, and electrical symbology. COREQ: CADD 0208 and CADD 0209. F

CADD 0208 Architectural Design Laboratory I: 3 semester hours.

Apply Architectural Design Theory I including documentation and modeling of residences using CAD systems. COREQ: CADD 0207. F

CADD 0209 Estimation Concepts: 2 semester hours.

Introduction to statistics and probability and cost estimation concepts. Solutions of problems relating to design drafting are emphasized. F

CADD 0217 Architectural Design Theory II: 2 semester hours.

Commercial architectural concepts and design theory. Commercial building design relating to design drafting emphasized. PREREQ: CADD 0207. COREQ: CADD 0218. F

CADD 0218 Architectural Design Laboratory II: 3 semester hours.

Application of Architectural Design Theory II including documentation and 3D modeling of commercial buildings using current Building Information Modeling (BIM) software. PREREQ: CADD 0208. COREQ: CADD 0217. F

CADD 0227 Structural Steel Drafting Theory: 2 semester hours.

Concepts of structural steel drafting and detailing including erection drawings and detailing of steel members. PREREQ: CADD 0217. COREQ: CADD 0228. S

CADD 0228 Structural Steel Drafting Laboratory: 3 semester hours.

Apply Structural Steel Drafting Theory including preparing structural steel detailing drawings using CAD systems, and structural steel drafting and detailing using a 3D modeling system. PREREQ: CADD 0218. COREQ: CADD 0227. S

CADD 0247 Design Integration Theory: 2 semester hours.

Concepts including Mechanical, Electrical, and Plumbing (MEP) building systems and graphic presentation methods explored. PREREQ: CADD 0227. COREQ: CADD 0248. S

CADD 0248 Design Integration Laboratory: 3 semester hours.

Applications of MEP building systems and graphic presentation methods including rendering and animation using CAD systems. PREREQ: CADD 0228. COREQ: CADD 0247. S

CADD 0295 CADD Internship: 1-16 semester hours.

Industrial work experience via a cooperative program for selected students. PREREQ: CADD major or permission of coordinator. F, S, Su

CADD 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

CADD 0298 Special Topics: 1-8 semester hours.

Addresses specific needs of industry, enabling student to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

Computer Science (CS)

Courses

CS 1181 Computer Science and Programming I: 3 semester hours.

Problem solving methods and algorithm development with an emphasis on programming style. Secure software design/coding concepts for resilient software. Equivalent to INFO 1181. Satisfies Objective 7 of the General Education Requirements. PRE-or-COREQ: MATH 1143 or MATH 1147. F, S

CS 1187 Applied Discrete Structures: 3 semester hours.

Discrete structures in CS and EE. Boolean algebra and logic; sets, functions, and relations; iteration, recursion, and induction; algorithms; programming in pseudocode; basic counting principles; graphs and trees; and other selected topics from discrete mathematics. Equivalent to MATH 1187. PREREQ: CS 1181/ INFO 1181. S

CS 1337 System Programming and Assembly: 3 semester hours.

Effect of computer architecture on the performance and correctness of code including data representation, machine language, compilation, code optimization, memory hierarchy, linking, pipelining, virtual memory, I/O and storage, and operating systems. Assembly programming. PREREQ: CS 1181. F

CS 2235 Data Structures and Algorithms: 3 semester hours.

Implementation, usage, and design concerns of important data structures and their operations. Implementation and discussion of basic search and sorting algorithms. Discussion will include both $O(n \log n)$ and linear sorting algorithms. Incorporates aspects of time complexity and asymptotic analysis of algorithms. Students will be required to develop small to medium sized programs. PREREQ: CS 1181. F,S

CS 2263 Advanced Object-Oriented Programming: 3 semester hours.

Advanced software development with an object-oriented focus. Design, implementation, and testing of several large programs using current technologies. Includes a discussion of the philosophy, application, and examples of object-oriented concepts and techniques; comprehensive survey of software engineering design patterns. PREREQ: CS 2235. S

CS 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

CS 3305 Introduction to Computational Theory: 3 semester hours.

Finite state automata, regular languages, lexical analysis; push-down automata, context-free languages, parsing; Turing machines and unrestricted grammars; computability complexity, NP-completeness. PREREQ: CS 1187/MATH 1187. F

CS 3316 Social Issues and Professional Practices in Computing: 3 semester hours.

Societal impact of computer technology, the computer scientist's place in society, ethical issues. Reading, discussion, and writing seminar. Essential skills for finding, applying for, and obtaining internships in CS. PREREQ: ENGL 3307 or ENGL 3308. F

CS 3321 Introduction to Software Engineering: 3 semester hours.

Techniques and tools for conceiving, designing, testing, deploying, maintaining, and documenting large software systems with particular focus on the structured analysis and design phases including task analysis, human factors, costs, and project and team management. PREREQ: CS 2263. F

CS 3337 Advanced Systems Programming: 3 semester hours.

Continuation of CS 1337, Systems Programming and Assembly. Introduction to fundamental concepts in networks, operating systems, basic client/server implementation, and parallel programming. PREREQ: CS 1337. S

CS 3393 Computer Science Internship: 1-3 semester hours.

Internship program coordinated by Computer Science faculty providing significant exposure to computer science issues and techniques. May not be used to fulfill computer science major or minor requirements. PREREQ: CS 2263 and CS 3316, and permission of instructor. D

CS 4412 Advanced Algorithms: 3 semester hours.

Further exploration of advanced topics in algorithms and data structures. Application of time complexity and mathematical analysis of algorithms, including best, worst, and average case analysis. Discussion and application of several algorithm design techniques including Brute force, Greedy, Divide-and-conquer, decrease-and-conquer, Dynamic programming, Transform-and-conquer, Backtracking and branch-and-bound, Probabilistic, and Approximation Algorithms approaches. PREREQ: CS 2263, CS 3305 and MATH 1175. S

CS 4418 Bioinformatics: 3 semester hours.

Examines computational methods for analyzing biological systems. Dynamic programming, Markov models, Neural Networks and Bayesian analysis are used to predict secondary structure, tertiary structure and active sites for drug docking given molecular DNA sequence analysis. PREREQ: CS 4412. D

CS 4420 Computer Security and Cryptography: 3 semester hours.

Public key and private key cryptography, key distribution, cryptographic protocols, requisite mathematics and selected topics in the development of security and cryptography. PREREQ: CS 4412. D

CS 4421 Software Architecture and Requirements Engineering: 3 semester hours.

An introduction to the design and implementation of large software systems. Includes the application of software architecture patterns, architectural tactics, analysis of software architectures, selection of architectural patterns to meet functional and non-functional requirements, and the use of architecture to meet quality standards. The course will also include methods of documenting and recovering existing architectures. Students, working in teams, will develop and evolve a large software product through multiple architectural patterns using current methods and tools found in the software industry. PREREQ: CS 3321. D

CS 4422 Software Testing and Formal Methods: 3 semester hours.

An introduction to the theory and techniques used in software testing and formal design method. Includes topics related to code coverage, program analysis, test design, and advanced concepts such as mutation testing, metamorphic testing, and test automation. The second half of the course focuses on formal modelling techniques for the specification, verification and validation of software designs. PREREQ: CS 3321. D

CS 4423 Software Evolution and Program Analysis: 3 semester hours.

An exploration of the theory and issues surrounding the maintenance and improvement of existing software systems. Topics will include the identification and triage of software bugs, patching and deploying fixes to existing software systems, refactoring software in large code bases, and the processes for managing change and maintenance of software systems. The second half of this course will focus on the identification of issues in software using program analysis. Specifically, focusing on current techniques used in static and dynamic analysis of software to identify maintainability, security, and performance issues. The course will culminate in two projects, one being the successful modification and refactoring of a large software system and the second in the development of a basic dynamic analysis tool. PREREQ: CS 3321. D

CS 4424 Secure Software Engineering: 3 semester hours.

Introduction to the Secure Software Development Lifecycle and the tools and techniques used in practice to design and develop software from a security standpoint. This course will also discuss methods of analyzing software for security vulnerabilities, detecting threats through current testing techniques, and the management and mitigation of risk in the software development process. PREREQ: CS 3321. D

CS 4442 GUI Development: 3 semester hours.

Planning and construction of Graphical User Interfaces and discussion of essential software engineering concepts. Includes the use of a modern toolkit language. PREREQ: CS 3321. D

CS 4451 Database Theory Design and Programming: 3 semester hours.

Data models, relational algebra and calculus, SQL and stored procedures, database design, ER diagrams, normalization theory, data storage, index structures, performance analysis, concurrency control. Database programming language access. Uses a different programming language. PREREQ: CS 4412. D

CS 4458 Computer Graphics: 3 semester hours.

Graphics, transformation matrices, lighting models, object hierarchies, visible surface determination, ray tracing. PREREQ: MATH 2240 and CS 4412. D

CS 4470 Parallel Processing: 3 semester hours.

Topics in high-performance computing: parallel architectures, SIMD, MIMD, SMP, NUMA models, message passing, cache coherency issues, MPI, PVM, parallel programming languages, cluster and grid approaches, applications and experience programming on a cluster. PREREQ: CS 3337. D

CS 4471 Operating Systems: 4 semester hours.

Theory, design, and implementation of software systems to support the management of computing resources. Concurrency, mutual exclusion and synchronization, CPU scheduling. Process, memory, and security. I/O files, and device management. Scripts and shells. Extensive systems programming including implementation of a portion of an operating system. PREREQ: CS 3337. D

CS 4472 Artificial Intelligence: 3 semester hours.

Introduction to the history, philosophy, and general algorithms for artificial intelligence. PREREQ: CS 4412. D

CS 4473 Computational Creativity: 3 semester hours.

Introduction to the the art, science, philosophy and engineering of computational systems which, by taking on particular responsibilities, exhibit behaviours that unbiased observers would deem to be creative. PREREQ: CS 2263. D

CS 4478 Machine Learning: 3 semester hours.

Introduction to the philosophy, utility, and models of machine learning, such that students are able to understand the basic concepts and issues of machine learning. Students will be prepared to use machine learning approaches in real world applications and/or to continue in a graduate research program. Topics covered include neural networks, decision trees, nearest neighbor learning, data mining, feature selection, clustering, ensembles, reinforcement learning, genetic algorithms, and deep learning. PREREQ: CS 4412 and MATH 2240. D

CS 4479 Natural Language Processing: 3 semester hours.

An introduction to Statistical Natural Language Processing (Stat. NLP) for solving problems involving natural (human) language. NLP and language technologies have become an important part of the programmer's toolbox when working with text, speech, and other language data. PREREQ: CS 4412. D

CS 4481 Compilers: 3 semester hours.

Design and construction of compilers. Theory and pragmatics of lexical, syntactic, and semantic analysis. Interpretation. Code generation for a modern architecture. Run-time environments. Includes a large compiler-implementation project. PREREQ: CS 3305 and CS 4412. D

CS 4488 Capstone Project: 3 semester hours.

Analysis, specification, design, implementation, and testing of a large software project. Formal approach and tools. Software lifecycle. Human computer interaction. Project and team management. Uses a different programming language. PREREQ: INFO 4407, and PRE-OR-COREQ: CS 3337 and CS 4412. D

CS 4492 Special Problems in Computer Science: 3 semester hours.

Research and reports on problems or topics in computer science. May be repeated for up to 9 credits with different content. PREREQ: Permission of instructor. D

CS 4494 Undergraduate Research: 1-3 semester hours.

Students will engage in a research project under the supervision of a research instructor, learning fundamental skills in conducting and publishing research in computer science. May be repeated for up to 9 credits with different content. PREREQ: Consent of instructor. D

CS 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Computerized Machining Tech (MACH)

Courses

MACH 0110 Machine Tool Lab I: 3 semester hours.

Machine Tool Lab I introduces students to the engine lathe and gives them practice on basic setup, safety, operation and maintenance of the machine. It prepares students for operations utilized in the advanced lathe practice labs. Related skills include supporting equipment. COREQ: MACH 0111. F, S

MACH 0111 Machine Tool Theory I: 2 semester hours.

Machine Tool Theory is a study of conventional lathe operations including facing, turning, boring, grooving, knurling, and thread and taper cutting. Related skills include supporting equipment. COREQ: MACH 0110. F, S

MACH 0112 Machine Math I: 3 semester hours.

Basic math principles of fractional and decimal numbers as related to machine shop measuring, blueprint reading, taper turning, threading and cutting speeds and feeds. Course covers basic algebra. F, S

MACH 0115 Applied Machining Geometry: 2 semester hours.

Study of the principles and applications of geometry to solve problems including print interpretation, threads, tapers, chords, arcs, areas, and volumes in a machine shop environment. PREREQ: MACH 0112. F, S

MACH 0120 Machine Tool Lab II: 3 semester hours.

Machine Tool Lab II introduces the student to safety practices, maintenance, and operation of milling machines. In addition, students will receive instruction and practice on supporting equipment. Emphasis is on setup, safety, maintenance, and manipulation of all controls. COREQ: MACH 0121. F, S

MACH 0121 Machine Tool Theory II: 2 semester hours.

Machine Tool Theory II is a study of the various milling machine operations. These include milling machines and the devices that attach to these mills for various operations. Also included is the operation of support equipment. COREQ: MACH 0120. F, S

MACH 0123 Blueprint Reading: 1 semester hour.

Introduction to identifying blueprint information needed to produce a machined part, through the interpretation of lines, symbols, and numbers as shown on two and three view orthographic drawings. F, S

MACH 0131 CNC Mill Setup: 2 semester hours.

Hands-on introductory course in the operation of Computer Numerical Control (CNC) vertical milling centers. Includes the safety practices, maintenance, setup and operation of CNC Mills. PREREQ: MACH 0120. F, S

MACH 0135 Applied Machining Trigonometry: 2 semester hours.

More advanced math course introducing trigonometry which is used in conjunction with geometry to solve machine shop applications such as threading, tapering, measuring, and milling speed/feed problems. PREREQ: MACH 0115. F, S

MACH 0141 CNC Lathe Setup: 2 semester hours.

Hands-on introductory course in the operation of Computer Numerical Control (CNC) lathes. Includes the safety practices, maintenance, setup and operation of CNC lathes. PREREQ: MACH 0110. F, S

MACH 0145 Geometric Dimensioning and Tolerancing I: 1 semester hour.

Introduction to Geometric Dimensioning and Tolerancing symbols and their meaning. PREREQ: MACH 0123. F, S

MACH 0220 CAD and CAM Applications I: 3 semester hours.

A hands-on lab utilizing computers for programming CNC machining centers for production purposes. COREQ: MACH 0221. F, S

MACH 0221 CAD and CAM Theory I: 3 semester hours.

Introductory theory course in the utilization of CAD/CAM systems. COREQ: MACH 0220. F, S

MACH 0225 Interpreting Technical Data: 1 semester hour.

Study of tables, charts, formulas, thread calculations, and related information as required of a machinist working in industry. Su

MACH 0230 CNC Mill Operations: 8 semester hours.

Set-up and operation of computer numerically controlled (CNC) vertical milling centers. Build jigs, set tooling, and use pre-written programs to produce CNC parts. PREREQ: MACH 0261. D

MACH 0240 CNC Lathe Operations: 8 semester hours.

Set-up and operation of computer numerically controlled lathes. Set the tooling and use pre-written programs to produce CNC parts. PREREQ: MACH 0261. D

MACH 0245 Geometric Dimensioning and Tolerancing II: 1 semester hour.

Study of geometric symbols and their application on modern blueprints. Also includes dimensioning to geometric tolerancing parameters. PREREQ: MACH 0145. F, S

MACH 0261 CNC Introduction to Theory: 2 semester hours.

An introductory course in basic programming of computer controlled machine tools. Emphasis is theory only. COREQ: MACH 0265. F, S

MACH 0265 Introduction to CNC Machine Practice: 4 semester hours.

A hands-on introductory course in the operation of Computer Numerical Control (CNC) vertical milling centers. Includes the safety practices, maintenance, setup and operation of CNC Mills. COREQ: MACH 0261. F, S

MACH 0270 CNC Machining Practice I: 4 semester hours.

An introductory course in basic computer skills, programming, set-up and operations of computer numerically controlled machine tools. PREREQ: Recommendation of program coordinator. COREQ: MACH 0271. F, S

MACH 0271 CNC Programming Theory I: 2 semester hours.

This course prepares the student in the programming of computer numerically controlled machine tools. Includes computer application of absolute/incremental, EIA/ISO, and conversational address systems. PREREQ: Program coordinator recommendation based upon demonstrated proficiency on conventional machine tools. COREQ: MACH 0270. F, S

MACH 0272 CNC Math I: 3 semester hours.

An advanced math course covering the basic use of geometric/trigonometric principles for identifying and solving all types of machine shop triangulation problems for the purpose of manufacturing parts on conventional and CNC machines. PREREQ: MACH 0135. F, S

MACH 0275 CAD and CAM Theory II: 2 semester hours.

Programming CNC machines utilizing CAD/CAM systems. Course familiarizes the student with applications, theory, and operation of CAD/CAM. PREREQ: MACH 0220 and MACH 0221. F, S

MACH 0280 CAD and CAM Applications II: 4 semester hours.

Application of CAD and CAM II with emphasis on efficient use of CAD/CAM generated programs to set up and operate CNC mills and lathes. PREREQ: MACH 0220. COREQ: MACH 0275. F, S

MACH 0281 CNC Programming Theory II: 1 semester hour.

An advanced course in the programming, set-up and operations of computer numerically controlled machine tools and accessory devices. MACH 0281 is a continuation of MACH 0271. COREQ: MACH 0290. PREREQ: MACH 0271. F, S

MACH 0285 CAD and CAM Theory III: 2 semester hours.

Advanced programming for CNC machines utilizing CAD/CAM systems. Course familiarizes students with theory and application of CAD/CAM to surfacing and multi-axis toolpaths. PREREQ: MACH 0275. COREQ: MACH 0291. F, S

MACH 0290 CNC Machining Practice II: 3 semester hours.

An advanced course in the programming, set-up and operations of the computer numerically controlled machine tools. MACH 0290 is an advanced continuation of MACH 0270. COREQ: MACH 0281. PREREQ: MACH 0270. F, S

MACH 0291 CAD and CAM Applications III: 4 semester hours.

Application of information learned in prior CAD/CAM applications courses. Emphasis on efficient use of CAD/CAM generated programs including surfacing and 4th and 5th axis toolpaths, to setup and operate CNC mills and lathes. PREREQ: MACH 0280. COREQ: MACH 0285. F, S

MACH 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

MACH 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

MACH 0299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Cosmetology (COSM)

Courses

COSM 0116 Introduction to Principles and Practices of Cosmetology: 8 semester hours.

Fundamentals of hair chemistry and biology; introduction to basic permanent waving chemistry, hair cutting, and hair styling. Classroom and lab are integrated. COREQ: COSM 0117. F, S

COSM 0117 Beginning Principles and Practices of Cosmetology: 8 semester hours.

This course builds upon concepts taught in COSM 0116 - Principles and Practice. This course will continue with the basic fundamentals of hair design, hair chemistry and biology, and interpersonal skills. Classroom and lab will be integrated. COREQ: COSM 0116. F, S

COSM 0126 Fundamental Principles and Practices of Cosmetology: 8 semester hours.

Combination of classroom, lab, and live work on the clinic floor dealing with customer needs and practical applications. PREREQ: COSM 0116. COREQ: COSM 0127. F, S

COSM 0127 Fundamental Principles and Practices of Cosmetology II: 8 semester hours.

In a combination of lab, live work, and classroom work, students will perform services on clientele, learn retail, customer relations, scheduling appointments, and dispensary duties pertaining to all phases of cosmetology. PREREQ: COSM 0117. COREQ: COSM 0126. F, S

COSM 0150 Foundations of Nail Technology: 8 semester hours.

Nail care, disease(s) of the nail, chemistry, biological concepts, and anatomy and physiology of nails. PREREQ: Admitted to Nail Technology Program. D

COSM 0151 Applied Practices in Nail Technology: 8 semester hours.

Public safety standards, sanitation procedures, and applications of current and emerging techniques in artificial nails, manicuring, and pedicuring. PREREQ: Admitted to the Nail Technology Program. PRE-or-COREQ: COSM 0150. D

COSM 0156 Fundamental Principles and Practices of Cosmetology III: 2 semester hours.

Continuation of concepts and practices in cosmetology, using a combination of classroom, lab, and live work on the clinic floor dealing with customer needs and practical applications. PREREQ: COSM 0116. COREQ: COSM 0157. Su

Counseling (COUN)

Courses

COUN 1150 Career and Life Planning: 1 semester hour.

Centers on theories and actual processes of effective decision-making with direct application to participants' short and long range life goals. Course will emphasize self-understanding and methods for gathering appropriate external information. Career decisions are emphasized. F, S

COSM 0157 Fundamental Principles and Practices of Cosmetology IV: 6 semester hours.

Continuation of the concepts and practices in cosmetology, using a combination of classroom, lab, and live work on the clinic floor dealing with customer needs and practical applications. PREREQ: COSM 0117. COREQ: COSM 0156. Su

COSM 0236 Advanced Principles and Practices of Cosmetology I: 8 semester hours.

Advanced techniques and concepts of cosmetology, including salon development, the salon business, and state laws and regulations. PREREQ: COSM 0156. COREQ: COSM 0127. F, S

COSM 0237 Advanced Principles and Practices of Cosmetology II: 8 semester hours.

State board preparation and advanced techniques and concepts of cosmetology. PREREQ: COSM 0157. COREQ: COSM 0236. F, S

COSM 0238 Cosmetology Instructor Training: 14 semester hours.

Candidates assume instructional and management responsibilities in supervised settings, including lesson planning, audio visual aid preparation, theory instruction, practical demonstration, testing and evaluation, and clinic floor supervision. PREREQ: Current license as a cosmetologist or nail technologist; twelve credit hours of general education from Goals 1, 2, and 12; two years of work experience as a licensed cosmetologist; and permission of program coordinator. Graded S/U. D

COSM 0279 Seminar: 1-16 semester hours.

This course is designed as a review for re-examination and/or refresher course for cosmetologists from Idaho or other states in preparation for the Idaho State Board of Cosmetology Examination. Graded S/U.

COSM 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

COSM 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

COUN 1198P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

COUN 2200 Multicultural Development: 1 semester hour.

Acquaints students with information related to the appreciation of individual differences as it relates to race, gender, and national origin in a pluralistic society. D

COUN 2201 Introduction to Leadership: 1 semester hour.

Contemporary approaches to leadership with an emphasis on the practical application of theoretical models. Graded S/U. D

COUN 2210 Human Relations at Work: 3 semester hours.

The development of knowledge and skills to enhance cooperation between employers and employees in various work settings. Exploration of current thought on the nature, process, and diversity of human interaction as it applies to the world of work. D

COUN 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

COUN 3300 Interpersonal Skills in Health Professions: 2 semester hours.

Theory and practice in the use of effective interpersonal communication skills and styles for health care providers. D

COUN 3350 Self Fulfilling Behavior: 1 semester hour.

Course objective is to assist the student in developing satisfying personal and interpersonal emotional skills and habits. Combines instruction in principles of mental health with practical methods for applying principles to problems of everyday life. PREREQ: Permission of instructor. Graded S/U. D

COUN 4423 Vocational Guidance and Counseling: 3 semester hours.

Study of occupational trends, job opportunities, factors involved in selecting an occupation and means of evaluating interests in terms of capabilities. D

COUN 4484 Guidance Principles and Practices: 3 semester hours.

Survey of the various guidance practices in secondary education. Each service is discussed from the point of view of its role in the total educational program. D

COUN 4485 Independent Problems: 1,2 semester hour.

Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors. Experience in research composition. PREREQ: Permission of instructor. D

COUN 4490 Introduction to Counseling Services: 1 semester hour.

Introduction to the counseling profession, including an overview of the curriculum, experience and skills needed to be a successful licensed counselor. F, S

COUN 4491 Seminar: 1-3 semester hours.

Critical analysis of the literature in one or more areas. Limited enrollment. May be repeated up to 8 credits. PREREQ: Permission of instructor. May be graded S/U or with letter grades in separate sections. F, S, Su

COUN 4494 Elementary School Guidance: 2 semester hours.

Study of (1) the function of guidance in relation to children's needs; (2) principles and techniques of elementary school guidance; (3) analysis of representative programs of guidance in the elementary schools; and (4) research related to elementary school guidance and resulting trends. D

COUN 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

COUN 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Dance (DANC)

Courses

DANC 1100 Ballet I: 2 semester hours.

Beginning barre, center floor work, and across the floor movement combinations including adagio, petit allegro, and grand allegro. Development of a ballet vocabulary of movement, musicality and music awareness, performance quality and intent. Focus upon classical and/or contemporary ballet dependent upon instructor of record. Assumes prior dance training. DAAC 1100 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 1104 World Dance Local Identity: 3 semester hours.

Compare traditional and contemporary cultures of Native America, Africa, Asia, the Americas, Oceania, and Europe; examine movement as the primary extension system, and the body as a tool of communication central to the social, political and religious life of community. Includes frameworks for observation; cross-cultural examinations of work, war, contest, social display and worship; diaspora, and global imperialism. F, S

DANC 1105 Survey of Dance: 3 semester hours.

Historical development of dance cross-culturally from early to modern times. A study of language, literature and forms of dance through readings, demonstrations, and performances. Relationship of dance to the fine arts and other disciplines. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

DANC 1107 Theatre and Dance Showcase: 0 semester hours.

Attendance at weekly showcase hour. Enrollment in this course is required of all students in Theatre and Dance majors and minors. Graded S/U. F, S

DANC 1110 Elements of Movement: 2 semester hours.

Introduction to the Elements of Movement (body, space, time, energy) as described in the theories of H'Doubler Movement Analysis and Laban Effort/Shape and Space Harmony. Exploration of how the Elements of Movement may be manipulated to create movement phrases and develop character and emotional performance. F

DANC 1120 Jazz Dance I: 2 semester hours.

Development of the jazz dance technique with focus on rhythmic complexity of movement combinations, the ability to perceive movement quickly and accurately, and performance quality and intent. Class will consist of core training; isolations; strength, flexibility, and speed; floor work; turns; dynamic, fluid and percussive movement. Assumes prior dance training. DAAC 1100 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 1130 Modern Dance I: 2 semester hours.

Contemporary modern dance with focus upon lifted center; fluid and articulate spine; strength and flexibility; falls, suspension and balance; musicality and music awareness developed through exercises at the barre, center floor work and movement combinations across the floor. Style of modern dance technique dependent upon instructor of record. Assumes prior dance training. DAAC 1100 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 1141 Dance for Musical Theatre: 2 semester hours.

A movement course designed to provide an overview of the dance forms encountered in theatrical productions. S

DANC 1191 Dance Production: 1 semester hour.

Supervised work in productions. Enrollment must be approved by a dance faculty member and does not presume casting in a given production. Equivalent to THEA 1191. May be repeated for up to 8 credits. F, S, Su

DANC 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

DANC 2200 Ballet II: 2 semester hours.

Continued development of barre exercises, center floor work, and across the floor movement combinations including adagio, petit allegro, and grand allegro. Continued development of ballet vocabulary of movement and movement qualities, musicality and music awareness, performance quality and intent. Focus upon classical and/or contemporary ballet dependent upon instructor of record. May be repeated for up to 6 credits. PREREQ: DANC 1100. F, S

DANC 2205 Dance in the Modern Era: 3 semester hours.

Concentrated study of the history of dance in the 20th and 21st centuries and its direct relationship to events and trends of the Modern Era through readings, films, demonstrations, and live performances. PREREQ: At least Sophomore standing. Partially satisfies Objective 4 of the General Education Requirements. AF

DANC 2210 Dance Composition I: 3 semester hours.

Explore various techniques and processes used to create movement studies and choreographic work at the beginning level. Students explore improvisational processes and design and present choreography created for individuals and groups. May be repeated for up to 8 credits. PREREQ: DANC 1110. S

DANC 2220 Jazz Dance II: 2 semester hours.

Continued development of the jazz dance technique with focus on rhythmic complexity of movement combinations, the ability to perceive movement quickly and accurately, performance quality and intent. Class will consist of increasing difficulty in core training; isolations; strength, flexibility, and speed; floor work; turns; dynamic, fluid and percussive movement. May be repeated for up to 6 credits. PREREQ: DANC 1120. F, S

DANC 2230 Modern Dance II: 2 semester hours.

Continued development of contemporary modern dance technique with focus upon lifted center; fluid and articulate spine; strength and flexibility; falls, suspension and balance; musicality and music awareness developed through exercises at the barre, center floor work and movement combinations across the floor. Style of modern dance technique dependent upon instructor of record. May be repeated for up to 6 credits. PREREQ: DANC 1130. F, S

DANC 2290 Contact Improvisation: 2 semester hours.

Beginning techniques of contact improvisation including focus on momentum, flow, gravity, and partnering skills. May be repeated for up to 4 credits. AS

DANC 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

DANC 3300 Ballet III: 2 semester hours.

Intermediate level barre exercises, center floor work, and across the floor movement combinations with increasing difficulty. Higher level of focus upon technique, performance quality and performance intent. Focus upon classical and/or contemporary ballet dependent upon instructor of record. Pointe work optional based on instructor and students. May be repeated for up to 6 credits. PREREQ: DANC 2200. F, S

DANC 3301 Performance and Society: 3 semester hours.

Examination of performance as praxis, the embodiment of theory. Draws upon the canon of 20th century theories and the performance projects they influenced to explore the performance art tradition and to create original interdisciplinary intermedia work that is reflective and reflexive of society. F

DANC 3311 Theatre Movement Workshop: 2 semester hours.

Exploration of techniques of movement improvisation and the text/movement synthesis of physical theatre. Equivalent to THEA 3300. PREREQ: DANC 1110. F

DANC 3320 Jazz Dance III: 2 semester hours.

Intermediate level jazz technique with increased rhythmic complexity of movement combinations, turns and body isolations. Increasing difficulty in perceiving movement quickly and accurately, and a higher level of performance quality and intent will be demonstrated. May be repeated for up to 6 credits. PREREQ: DANC 2220. F, S

DANC 3330 Modern Dance III: 2 semester hours.

Intermediate level technique: lifted center; fluid and articulate spine; strength and flexibility; falls, suspension and balance; musicality and music awareness developed through increased difficulty of barre exercises, center floor work and movement combinations across the floor. Style of modern dance technique dependent upon instructor of record. May be repeated for up to 6 credits. PREREQ: DANC 2230. F, S

DANC 3360 Methods of Dance for Children: 3 semester hours.

Study of a variety of dance activities suitable for early childhood through grade 6. Students plan and teach dance to children. Interdisciplinary approaches to incorporate dance into an educational setting are used. AF

DANC 3380 Dance Management and Production: 2 semester hours.

Overview of skills necessary to manage and produce formal dance productions; design of costumes, lights, sets and sound; house and stage management. Exploration of business and administration including auditioning, resumes, fundraising, advertising, promotion, community outreach, and documentation. D

DANC 3390 Workshop Cultural Forms: 1-2 semester hours.

Workshops aimed at the development and breadth of dance skills cross-culturally. May be repeated for up to 6 credits with different titles. F, S

DANC 3391 Dance Production: 1 semester hour.

Supervised work in productions. Enrollment must be approved by a dance faculty member and does not presume casting in a given production. Equivalent to THEA 3391. May be repeated for up to 8 credits. F, S, Su

DANC 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

DANC 4401 Aesthetic Issues in Dance: 3 semester hours.

An examination into the aesthetics of human movement as they relate to the human body biologically, socially, politically, historically and culturally. S

DANC 4410 Dance Composition II: 3 semester hours.

Explore various techniques and processes used to create movement studies and choreographic work at an intermediate/advanced level. Students continue to explore improvisational processes based in the Elements of Movement. Students present their work in a concert at the end of the semester. PREREQ: DANC 2210 and THEA 3300. F

DANC 4460 Dance Teaching Methods and Curriculum Design: 3 semester hours.

Study of curricular designs, methods, materials utilized in teaching dance in schools. Practical experience in teaching others. Develop basic skills in a variety of dance forms such as creative, folk, square. AS

DANC 4485 Independent Study in Dance: 1-3 semester hours.

Individual work under the direction of a dance faculty member. Field and/or library study on specific dance related topics of interest to students who want further studies in dance. May be repeated up to 6 credits. PREREQ: Permission of instructor. F, S, Su

DANC 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Dance Activity (DAAC)

Courses

DAAC 1100 Dance Basics: 1 semester hour.

Introduction and exploration of the basic terms and concepts of dance fundamental to ballet, jazz, modern and social dance techniques. Through the techniques of ballet barre, center floor work, and across the floor movement combinations, students will practice conditioning, strength, flexibility, alignment coordination, rhythm, musicality, body and spatial awareness. F, S

DAAC 1110 Ballroom Dance I: 1 semester hour.

Beginning techniques in twostep, Fox Trot, Waltz, Polka, Cha Cha Cha, Swing, and others. Taught at beginning skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. F, S

DAAC 1111 Ballroom Dance II: 1 semester hour.

Intermediate techniques in twostep, Fox Trot, Waltz, Polka, Cha Cha Cha, Swing, and others. Taught at intermediate skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. S

DAAC 1115 Ballroom Dance Performance: 1 semester hour.

Advanced ballroom dance students learn to choreograph and perform a "Couples" dance routine; learn how to select music, costumes, and stage individual performances for formal presentation. F

DAAC 1125 Latin Dance I: 1 semester hour.

Learn footwork, turns, patterns, proper posture, weight transfer, frame, connection and techniques of leading and following while learning many different Latin Dances and Music which may include Salsa, Merengue, Tango, Bachata, Rhumba, and Samba. Informal performance opportunities available. F, S

DAAC 1135 Middle Eastern Dance: 1 semester hour.

Modern Middle Eastern Dance derives from the ancient cultures of the Orient to India to the Middle East. Learn basic techniques including proper stance, posture, isolations, hip and upper body movement, arm positions and traveling patterns, shimmies, turns and traveling steps while exploring aspects of music and culture specific to the varying regions presented in class. Introduction to use of finger cymbals and veil work. F, S

DAAC 1140 Tap Dance I: 1 semester hour.

Introduction to basic steps of tap technique, including coordination, rhythmic variations, and performance skills through a series of tap combinations. Tap shoes are required. Informal performance opportunities available. F, S

DAAC 1141 Tap Dance II: 1 semester hour.

Continuation of DAAC 1140, increasing in complexity of steps of tap technique. Students learn coordination, rhythmic variations, and performance skills through a series of tap combinations. Tap shoes are required. Informal performance opportunities available. F, S

DAAC 1150 Folk and Square Dance I: 1 semester hour.

Steps/combinations taught at various skill levels. Folk dances from around the world, square dances from America are included. Informal performance at end of semester. D

DAAC 1151 Folk and Square Dance II: 1 semester hour.

Steps/combinations taught at various skill levels. Folk dances from around the world, and square dances from America are included. Informal performance at end of semester. PREREQ: DAAC 1150 or equivalent. D

DAAC 1160 Recreational Dance I: 1 semester hour.

Recreational dance forms such as line dance, country western, mixers, and round dances will be taught in a social setting. Partners not required. D

DAAC 1161 Recreational Dance II: 1 semester hour.

More recreational dances in line dance, country western, mixers, and round dances will be taught in a social setting. Partners not required. PREREQ: DAAC 1160 or equivalent. D

DAAC 1175 Pilates Dance Conditioning-Matwork: 1 semester hour.

A Pilates based fitness and dance conditioning floor work-out balances strength with flexibility. Designed by Joseph Pilates in the 1920's, Pilates tones the body's major and minor muscles, increases circulation, and enhances movement performance. F, S

DAAC 1176 Pilates Dance Conditioning-Equipment: 1 semester hour.

A Pilates based fitness and dance conditioning work-out with equipment balances strength with flexibility while toning the body's major and minor muscles, increasing circulation, aiding correct alignment and movement efficiency for optimal performance potential. Includes training on the Wunda Chair, the Pilates Reformer, and the Cadillac. F, S

DAAC 1180 Hip Hop I: 1 semester hour.

Beginning techniques in step, break, and other elements of this social form. Students participate in improvisation and performance activities to present at an end of semester informal presentation. F, S

DAAC 1181 Hip Hop II: 1 semester hour.

Intermediate techniques in step, break, and other elements of this social form. Students participate in improvisation and performance activities to present at an end of semester informal presentation. F, S

DAAC 1182 Hip Hop Performance: 1 semester hour.

Intermediate level course designed to develop students' technique, performance and repertoire within the specialized styles of hip hop. Focus upon intermediate/advanced hip-hop dance techniques, patterns, routines, and choreography in preparation for formal performances. F

DAAC 1195 Swing Dance: 1 semester hour.

Swing techniques taught at a beginning skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. F, S

DAAC 1199 Experimental Course: 1-9 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Dental Hygiene (DENT)

Courses

DENT 2201 Principles of Dental Hygiene: 2 semester hours.

Prevention of dental diseases, role of the dental hygienist and oral healthcare team are presented at the pre-professional level. Dental hygiene career content assists in formulating a career decision. F, S

DENT 2220 Introduction to the Dental Office: 2 semester hours.

Introduction to dental terminology and office procedures including duties and responsibilities of various dental personnel through lectures, activities and field experiences. F

DENT 3307 Prevention and Management of Dental Emergencies: 3 semester hours.

Presentations, discussions, cases, and active learning strategies provide a foundation for critical decision making in the management of medically compromised patients during oral health care. Emphasis on precautions and treatment alterations for patients with medical complications and protocols managing a medical emergency. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 3313C. F

DENT 3308 Oral Histology and Embryology: 2 semester hours.

Study of the embryologic and histologic development of the face and oral structures and the histologic response of oral tissues specifically related to health and disease. Utilization of laboratory, microscopic and diagnostic aids. F

DENT 3309 General and Oral Pathology: 3 semester hours.

Study of common oral lesions and neoplasms including general, dental, and oral pathological processes with emphasis on etiology and oral manifestations of systemic disease. Critical application of patient history, laboratory, radiographic, and other diagnostic aids. PREREQ: DENT 3307, DENT 3308 and DENT 3313. S

DENT 3311 Tooth Morphology: 2 semester hours.

Morphological characteristics and development of the teeth and oral structures. Emphasis on occlusal and root anatomy for application of advanced clinical practice. F

DENT 3312 Head and Neck Anatomy: 3 semester hours.

Descriptive anatomical study of regions of the head and neck, including skeletal, blood, and nervous tissues. Special emphasis on structures related to clinical dental hygiene procedures. COREQ: DENT 3311. F

DENT 3313 Clinical Dental Hygiene I: 3 semester hours.

Introduction to the dental hygiene process of care. Emphasis on infection control protocols, beginning assessment, instrumentation principles and prevention therapies. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 3313C. F

DENT 3313C Clinical Dental Hygiene I Clinic: 3 semester hours.

Preclinical application of principles, techniques, and concepts presented in DENT 3307 and DENT 3313. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 3307 and DENT 3313. F

DENT 3314 Clinical Dental Hygiene II: 2 semester hours.

Continued application of the dental hygiene process of care. Emphasis on expanding on principles of patient communication and implementation of dental hygiene care for a variety of clients. PREREQ: DENT 3313, DENT 3313C, and DENT 3315. COREQ: DENT 3314C. S

DENT 3314C Clinical Dental Hygiene II Clinic: 3 semester hours.

Clinical application of the dental hygiene process of care for clients with periodontal health, gingivitis, and early periodontitis. Emphasis on assessment, dental hygiene diagnosis, planning, implementation and evaluation. PREREQ: DENT 3313, DENT 3313C, and DENT 3315. COREQ: DENT 3314. S

DENT 3315 Preventive Dentistry: 2 semester hours.

Basics of oral disease etiology and methods for disease management. Theoretical and practical knowledge of applied prevention strategies that improve oral health and positively impact self-care behavior. F

DENT 3316 Dental Materials: 2 semester hours.

Survey of physical and chemical properties of dental materials. Manipulation and practical application used in general restorative dentistry also are included. Restricted to Dental Hygiene major. F

DENT 3318 Oral Radiology: 2 semester hours.

Survey of principles of x-ray production, radiographic equipment and radiographic safety protocols. Application of principles and techniques of exposing, processing, and interpreting traditional and digital oral radiographic surveys. PREREQ: DENT 3312, DENT 3313, and DENT 3313C. COREQ: DENT 3318L. S

DENT 3318L Oral Radiology Laboratory: 1 semester hour.

Applied instruction and supervision for exposing, processing, evaluating, and interpreting oral radiographs. Emphasis on developing beginning competency prior to clinical experiences. PREREQ: DENT 3312, DENT 3313 and DENT 3313C. COREQ: DENT 3314C and DENT 3318. S

DENT 3319 Preclinical Restorative Procedures: 2 semester hours.

Didactic and laboratory application of dental materials and dental hygiene restorative therapies. Applied laboratory experiences with amalgam, tooth colored and temporary restorations; four-handed dentistry, impressions and study models are integrated. PREREQ: DENT 3311 and DENT 3316. S

DENT 3320 Pain Management: 2 semester hours.

Didactic and clinical instruction in pain management theory and procedures for administration of local anesthesia and analgesia agents. Emphasis on field and nerve block anesthesia and nitrous oxide analgesia techniques. PREREQ: DENT 3307 and DENT 3312. S

DENT 3321 Periodontology: 2 semester hours.

Concepts of periodontology involving assessment, etiology, risk factors, and classification of periodontal diseases; basic treatment planning, and implementation of periodontal therapy. PREREQ: DENT 3308, DENT 3313, and DENT 3313C. COREQ: DENT 3314 and DENT 3314C. S

DENT 3330C Interim Clinic: 2 semester hours.

Continued clinical application of dental hygiene procedures emphasizing total patient care. For students who require additional clinical course experience for DENT 3314C, DENT 4403C or DENT 4404C sufficient for progression or graduation. May be repeated once. F, S, Su

DENT 3340C Enhanced Strategies in Clinical Care: 1 semester hour.

Continued clinical application of the dental hygiene process of care. For students who desire enrichment of clinical experiences for preparation prior to DENT 4404C or completing clinical board examinations. PREREQ: Permission of department. Graded S/U. Su

DENT 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

DENT 4401 Research Methods: 2 semester hours.

Fundamental and working knowledge of the scientific method employed in oral health research. Development of lifelong learning skills through critical analysis of research findings. PREREQ: MATH 1153 and ENGL 1102. F

DENT 4402 Advanced Periodontology: 2 semester hours.

Continued study of periodontal diseases and therapy with emphasis on critical application of advanced disease processes and treatment planning for moderate to severe periodontal cases with medically compromised health status. PREREQ: DENT 3314, DENT 3314C, and DENT 3321. COREQ: DENT 4403 and DENT 4403C. F

DENT 4403 Advanced Clinical Theory I: 2 semester hours.

Advanced clinical theory and procedures for all phases of dental hygiene practice including nonsurgical periodontal therapy, ultrasonic scaling, instrument recontouring, assessment procedures and dietary counseling. PREREQ: DENT 3314 and DENT 3314C. COREQ: DENT 4403C. F

DENT 4403C Advanced Clinical Practice I Clinic: 4 semester hours.

Continued application of the dental hygiene process of care through critical application and decision-making. Emphasis on continued skill development in nonsurgical periodontal therapy, self-care education, ethical and professional judgment, self-assessment and peer evaluation. PREREQ: DENT 3314 and DENT 3314C. COREQ: DENT 4403. F

DENT 4404 Advanced Clinical Theory II: 2 semester hours.

Continued study of advanced clinical care. Emphasis on advanced instrumentation, interprofessional collaborations and communication, practice management and professional and career development. PREREQ: DENT 4403 and DENT 4403C. COREQ: DENT 4404C. S

DENT 4404C Advanced Clinical Practice II Clinic: 4 semester hours.

Advanced application of the dental hygiene process of care through critical application and decision-making. Emphasis on continued skill development in nonsurgical periodontal therapy, self-care education, ethical and professional judgment, self-assessment and peer evaluation. PREREQ: DENT 4403 and DENT 4403C. COREQ: DENT 4404. S

DENT 4405 Dental Hygiene Seminar: 1 semester hour.

Practical application of scientific methods to design and present oral health research in interprofessional forums, in addition to current theories and topics in dental hygiene practice. PREREQ: DENT 4401. S

DENT 4408 Ethical and Legal Principles: 2 semester hours.

The study and application of legal, ethical, and moral responsibilities of health care professionals as related to the practice of dental hygiene. Licensure, legal terminology and the Idaho Dental Practice Act will be discussed. F

DENT 4411 Application of Restorative Therapies: 2 semester hours.

Didactic and laboratory application of advanced procedures emphasizing pain control methods, preventive and restorative expanded functions and four-handed dentistry procedures. PREREQ: DENT 3319 and DENT 3320. COREQ: DENT 4411C. F

DENT 4411C Restorative Care I: 1 semester hour.

Clinical application of advanced pain control methods, restorative and preventive therapy and four-handed dentistry procedures. Restricted to Dental Hygiene major. PREREQ: DENT 3319 and DENT 3320. COREQ: DENT 4411. F

DENT 4412C Restorative Care II: 1 semester hour.

Advanced clinical application of pain control methods, preventive and restorative therapy and four-handed dentistry procedures. Restricted to Dental Hygiene major. PREREQ: DENT 4411 and DENT 4411C. S

DENT 4413 Community Health and Special Needs Populations: 3 semester hours.

Concepts of dental public health, health promotion and education, research, preventive counseling, and patient management along with modifications of dental hygiene care for individuals with transient or lifelong special needs emphasizing the elderly, people with disabilities, and individuals from diverse cultures. Applied methods are used to create a community health program that supports a sustained improvement in oral health behaviors, knowledge and attitudes for population groups. PREREQ: DENT 3314, DENT 3314C, and DENT 3315. COREQ: DENT 4401 and DENT 4403C. F

DENT 4414 Community Outreach Experiences: 2 semester hours.

Field experiences for providing oral health services to populations in need, and promoting oral health through educational programs. Implementation and evaluation of oral health programs with dissemination of actual outcomes to the professional community and stakeholders. PREREQ: DENT 3315 and DENT 4413. S

DENT 4421 Leadership and Health Policy: 2 semester hours.

Focus on the concept of leadership at the health policy and systems level. Principles, theories and strategies of leadership relevant to health care professionals are presented. Professional development for lifelong learning is addressed. Restricted to senior year professional status or Dental Hygiene major. S

DENT 4422 Educational Strategies and Applied Methods: 2 semester hours.

Exploration of educational principles and methods of teaching and instructional design for a variety of settings and population groups. Topics include analyzing, planning, developing, implementing and evaluating instruction; practical application of instructional strategies including formative and summative evaluation in the classroom and clinical settings are included. Restricted to senior year professional status or Dental Hygiene major. F

DENT 4424 Principles of Interprofessional Practice Management: 3 semester hours.

Exploration of professional issues influencing dental hygiene practice including administrative roles and responsibilities of planning, implementing, managing, and evaluating health care programs and practices. Financial aspects of practice management are included. Practical application of interprofessional collaboration and management principles are used to implement and evaluate health care programs and practices. Restricted to senior year professional status or Dental Hygiene major. S

DENT 4481 Independent Studies in Dental Hygiene: 1-3 semester hours.

Students will select an area of special interest to pursue through independent study. The student normally is required to present a report giving results of his/her work. May be repeated to a maximum of 12 credits. F, S, Su

DENT 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Diagnostic Medical Sonography (DMS)

Courses

DMS 4400 Introduction to Sonography: 1 semester hour.

This course provides an introduction to the profession of sonography and examines the role of the sonographer. An introduction will be provided for pulse-echo imaging, general sonography, cardiac sonography, vascular technology and typical career opportunities available in this field. Su

DMS 4401 Abdominal Sonography I: 2 semester hours.

This course covers sonographic anatomy and scanning procedures of the abdomen and superficial structures. Emphasis is placed on pathology, the various disease processes, and their sonographic appearance in the areas of soft tissues, blood vessels and organs of the abdominal cavities. Activities structured follow the guidelines of the ARDMS Abdomen (AB) Examination. Su

DMS 4402 Abdominal Sonography II: 1 semester hour.

This course covers sonographic anatomy and advanced scanning procedures of the abdomen and superficial structures. Emphasis is placed on pathology, the various disease processes, and their sonographic appearance in the areas of soft tissues, blood vessels and organs of the abdominal cavities. Activities structured follow the guidelines of the ARDMS Abdomen (AB) Examination. PREREQ: DMS 4401. F

DMS 4404 OB/GYN Sonography I: 1 semester hour.

This course covers the anatomy and scanning procedures of the female pelvis and the developing fetus in the first, second, and third trimesters of pregnancy. Emphasis is placed on pathology, various disease processes, and their sonographic appearance. Activities structured follow the guidelines of the ARDMS Obstetrics & Gynecology (OB/GYN) Examination. Su

DMS 4405 OB/GYN Sonography II: 1 semester hour.

This course covers the anatomy and advanced scanning procedures of the female pelvis and the developing fetus in the first, second, and third trimesters of pregnancy. Emphasis is placed on pathology, various disease processes, and their sonographic appearance. Activities structured follow the guidelines of the ARDMS Obstetrics & Gynecology (OB/GYN) Examination. PREREQ: DMS 4404. F

DMS 4406 OB/GYN Sonography III: 1 semester hour.

This course covers the anatomy and advanced scanning procedures of the female pelvis and the developing fetus in the first, second, and third trimesters of pregnancy. Additional information on anatomy, pathophysiology, sonographic theory, and sonographic technique will be covered. Emphasis is placed on pathology, various disease processes, and their sonographic appearance. Activities structured follow the guidelines of the ARDMS Obstetrics & Gynecology (OB/GYN) Examination. PREREQ: DMS 4405. S

DMS 4407 Sonography Physics and Instrumentation I: 1 semester hour.

This course covers the fundamentals of sonography principles and instrumentation, clinical safety, physical principles, and pulsed echo instrumentation. Various types of transducers used to acquire images will be introduced. Information gained in this course will be used to further sonographic practice and activities are structured to follow the guidelines of the ARDMS Sonography Principles & Instrumentation (SPI) Examination. COREQ: DMS 4410. Su

DMS 4408 Sonography Physics and Instrumentation II: 1 semester hour.

This course covers advanced sonography principles and instrumentation, QA, clinical safety, physical principles, and pulsed echo instrumentation. Image artifacts will also be examined. Information gained in this course will be used to further sonographic practice, and to pass the ARDMS sonography principles & instrumentation (SPI) exam. PREREQ: DMS 4407. COREQ: DMS 4411. F

DMS 4409 Sonography Physics and Instrumentation III: 1 semester hour.

This course covers advanced sonography principles and instrumentation, QA, clinical safety, physical principles, and pulsed echo instrumentation. Current technology will be examined, including the continuing progression of contrast agents and 3D/4D and emerging imaging advancements and techniques. More emphasis will be placed on critical thinking skills, troubleshooting, and image evaluation. Information gained in this course will be used to further sonographic practice, and to pass the ARDMS sonography principles & instrumentation (SPI) exam. PREREQ: DMS 4408, COREQ: DMS 4412. S

DMS 4410 Fundamentals of Sonography Lab I: 1 semester hour.

In the laboratory setting, students will apply their knowledge to develop psychomotor and critical thinking skills required to properly perform commonly ordered sonography examinations. This will include hands on scanning exercises and completion of laboratory assignments and competency assessments. Students will acquire knowledge of anatomical landmarks, standard exam protocols, scanning techniques, patient care skills, and proper machine operation and maintenance. COREQS: DMS 4400 and DMS 4407. Su

DMS 4411 Fundamentals of Sonography Lab II: 1 semester hour.

In the laboratory setting, students will apply their knowledge to develop psychomotor and critical thinking skills required to properly perform commonly ordered sonography examinations. This will include hands on scanning exercises and completion of laboratory assignments and competency assessments. Emphasis will be placed on developing scanning techniques for patients with varying body habitus size, limited mobility, patients unable to communicate, or other non-routine scenarios. Students will acquire knowledge of anatomical landmarks, standard exam protocols, scanning techniques, patient care skills, and proper machine operation and maintenance. PREREQ: DMS 4410. COREQ: DMS 4408. F

DMS 4412 Fundamentals of Sonography Lab III: 1 semester hour.

In the laboratory setting, students will apply their knowledge to develop advanced psychomotor and critical thinking skills required to properly perform atypical sonography examinations along with interventional procedures such as biopsies, thoracentesis, paracentesis, abscess drainages, and other sterile tray procedures. This will include hands on scanning exercises and completion of laboratory assignments and competency assessments. Students will acquire knowledge of anatomical landmarks, standard exam protocols, scanning techniques, patient care skills, and proper machine operation and maintenance. PREREQ: DMS 4411. COREQ: DMS 4409. S

DMS 4413 Sonography Case Studies I: 1 semester hour.

This course covers a number of common case studies and teaching files presented with images in different projections to point out specific features, anomalies, pathology, or disease processes. Information gained in this course will be used to further sonographic practice and to assist the student in passing the ARDMS specialty examinations. Su

DMS 4414 Sonography Case Studies II: 1 semester hour.

This course covers a number of uncommon case studies and teaching files presented with images in different projections to point out specific features, anomalies, pathology, or disease processes. Information gained in this course will be used to further sonographic practice and to assist the student in passing the ARDMS specialty examinations. PREREQ: DMS 4413. Su

DMS 4415 Sonography Case Studies III: 1 semester hour.

This course covers a number of rare case studies and teaching files presented with images in different projections to point out specific features, anomalies, pathology, or disease processes. Students will develop a pathology poster board to submit in the state-level exhibit competition. Information gained in this course will be used to further sonographic practice and to assist the student in passing the ARDMS specialty examinations. PREREQ: DMS 4414. Su

DMS 4416 Vascular Sonography: 2 semester hours.

This course covers a review of ultrasound vascular diagnosis, including peripheral veins and arteries, carotid and vertebral arteries, abdominal vessels, and transcranial Doppler. Information gained in this course will be used to further sonographic practice and develop an understanding of the vascular system. F

DMS 4417 Superficial Structures in Sonography: 1 semester hour.

This course covers sonographic anatomy and scanning procedures for superficial structures including the thyroid gland, lymph nodes, hernias, testicles/scrotum, and musculoskeletal anomalies. Emphasis is placed on pathology, the various disease processes, and their sonographic appearance. Activities structured follow the guidelines of the ARDMS. S

DMS 4418 Breast Sonography: 1 semester hour.

This course covers the anatomy and scanning procedures of the breast. Pathology identified through screening or diagnostic mammography, breast quadrants, and the clock positions used to identify and isolate breast abnormalities will be reviewed. Emphasis is placed on pathology, various disease processes, and their sonographic appearance (normal vs. abnormal). Emphasis is on professional and technical qualities required of becoming a competent sonographer and learning the basics of performing sonographic breast examinations. Activities structured follow the guidelines of the ARDMS Breast (BR) Examination. S

DMS 4419 Sonography Specialty Areas: 1 semester hour.

This course provides advanced applications and theory in perinatology, pediatric imaging, cardiac sonography, vascular technology and typical career opportunities available in these fields. S

DMS 4451 Research Principles in Sonography: 2 semester hours.

This course provides a foundation for critical analysis of research and medical literature while developing advanced writing and critical thinking skills. Statistical research concepts and procedures are combined with an emphasis on practical health care applications and dissemination of knowledge. Papers generated in this course will be submitted for professional peer review/evaluation at national and state level conference essay competitions. F

DMS 4476 Sonography ARDMS Registry Review: 1 semester hour.

Sonography students will review activities structured following the guidelines of the ARDMS to earn the credentials of Registered Diagnostic Medical Sonographer (RDMS). Specific focus concentration areas include: Sonography Principles & Instrumentation (SPI) Examination, Abdomen (AB) Examination, Breast (BR) Examination, and the Obstetrics & Gynecology (OB/GYN) Examination. S

DMS 4491 Applied Sonography I: 6 semester hours.

Sonography students will attend clinical rotations for 32 hours per week. Emphasis is on professional and technical qualities required of becoming a competent sonographer and learning the basics of performing sonographic examinations. Activities structured follow the guidelines of the ARDMS. Clinical rotation schedules will be determined by the clinical coordinator. Su

DMS 4492 Applied Sonography II: 8 semester hours.

Sonography students will attend clinical rotations for 32 hours per week. Emphasis is on professional and technical qualities required of becoming a competent sonographer and learning the basics of performing sonographic examinations. Activities structured follow the guidelines of the ARDMS. Clinical rotation schedules will be determined by the clinical coordinator. PREREQ: DMS 4491. F

DMS 4493 Applied Sonography III: 8 semester hours.

Sonography students will attend clinical rotations for 32 hours per week. Emphasis is on professional and technical qualities required of becoming a competent sonographer and learning the basics of performing sonographic examinations. Activities structured follow the guidelines of the ARDMS. Clinical rotation schedules will be determined by the clinical coordinator. PREREQ: DMS 4492. S

Diesel/Diesel Electric (DESL)

Courses**DESL 0101 Safety and Introduction to Shop Practices: 2 semester hours.**

Theory and application of shop safety, tool and equipment usage, precision measuring, basic welding, and oxy-acetylene skills. D

DESL 0102 Introduction to Electrical: 1 semester hour.

Fundamental electrical theory concepts and basic electrical system formulas. F, S

DESL 0103 Electrical Systems: 3 semester hours.

Troubleshooting and repair procedures for heavy-duty electrical systems, including electrical principles as they relate to the components used in trucks and heavy equipment, wiring schematics, and lighting along with the associated testing and repair procedures for each system. Topics include basic electricity fundamentals, starters, charting systems, batteries, troubleshooting, and lighting systems. F, S

DESL 0107 Basic Diesel Electrical Systems: 2 semester hours.

Theory, application, and practice in basic electricity and electronic principles to include wiring circuits, charging, and starting systems found in diesel powered vehicles. Emphasis will be given to diagnosis of electrical systems and use of diagnostic equipment. D

DESL 0109 Cab Climate Control: 2 semester hours.

Fundamentals of mobile air conditioning and heating systems including electronic climate controls and principles, basic refrigeration concepts, evacuation and recharging, and repair and testing of systems. Students will become familiar with environmental regulations and proper disposal of refrigerants. D

DESL 0113 Diesel Engine Fuel Systems: 2 semester hours.

Introduces diesel fuel systems, mechanical fuel pumps, governors, air-to-fuel ratios, and the chemistry of combustion. Classroom theory will be followed by practical lab application including setting valve lash, adjusting injector settings, and other tune-up related procedures to increase efficiency and decrease pollution. D

DESL 0115 Diesel Hydraulics I: 2 semester hours.

Provides an introduction to diesel hydraulics and their operation. Basic principles of flow, pressure, and conversion of fluid power into mechanical power; relationship of Pascal's Law and relating it to the fundamentals of hydraulic principles; and identification of the components in a basic hydraulic circuit and variations of those circuits used in modern hydraulic systems. D

DESL 0125 Heavy Duty Power Trains: 8 semester hours.

Provides training in heavy duty power train components from engine flywheel through the final drives on heavy duty truck, construction equipment, and farm implements. Practical theory and application to perform repair procedures, troubleshooting, diagnosing, failure analysis, preventative maintenance, and adjustments of heavy-duty power trains. Manually operated, power-shift actuated, differentials, and planetary final drives will be covered. Introduction to maintenance and repair of heavy duty brake systems is included. D

DESL 0184 Diesel Engine Technology: 5 semester hours.

Instruction in diesel power theory fundamentals and operation of diesel engines in mining, agriculture, and trucking applications. Classroom theory is combined with laboratory sections consisting of overhaul procedures, repair, diagnostic testing, and final adjustment of components or systems. D

DESL 0186 Diesel Engine Electrical Systems: 2 semester hours.

Provides instruction in theory and application of computerized engine management systems, understanding the relationship of electronic components to overall engine performance, and employ diagnostic equipment to test and monitor engine systems. COREQ: DESL 0184 and DESL 0190. PRE-or-COREQ: DESL 0101. D

DESL 0190 Diesel Engine Emission Systems: 1 semester hour.

Provides instruction in theory and application of new federal emissions compliance standards for diesel powered vehicles. Topics include principles of exhaust treatment, testing of emission control devices, emissions monitoring, troubleshooting, and corrective action for emissions compliance and maximum power output. PREREQ: DESL 0101. D

DESL 0215 Advanced Hydraulics: 6 semester hours.

Addresses troubleshooting hydraulic and hydrostatic drive systems. Fundamentals of GPS operation as they relate to hydraulic controls in agriculture and construction equipment. Emphasis on the proper use of diagnostic procedures, electronic test equipment, and interpretation of schematic drawings. Perform tests and make repairs to mechanical or electronic components. Students will use a variety of electronic meters to diagnose and correct problems. COREQ: DESL 0107. PREREQ: DESL 0101 and DESL 0115. D

DESL 0217 Advanced Engine Electronics Systems: 4 semester hours.

Provides instruction in theory and operation of electronic control systems, electronic control modules, and electronic governors. Practical application and use of multi-meters, engine diagnostic software, and troubleshooting techniques are provided. COREQ: DESL 0109, DESL 0113, DESL 0125, DESL 0184, DESL 0186, and DESL 0190. PREREQ: DESL 0101 and DESL 0107. D

DESL 0231 Live Work Capstone Class: 8 semester hours.

Synthesis of all prior learning. Provides opportunities for diagnosis, troubleshooting, and service of diesel powered equipment by repairing customer equipment in a controlled lab environment. Includes diagnosis of faults, preparation of service reports, ordering parts, installation of parts for repair, and final testing of all work performed. D

DESL 0232 Internship Capstone Class: 8 semester hours.

Used as a final phase of training in an actual equipment repair facility performing all types of repair work. The participant will utilize all previously learned skills in an industrial setting and will be closely supervised. F, S, Su

DESL 0241 On Site Power Generation I: 8 semester hours.

Principles, diagnosis, repair and trouble shooting on operable on-site power generation equipment. F, S

DESL 0243 On Site Power Generation II: 8 semester hours.

A continuation of DESL 0241. F, S

DESL 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

DESL 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Dietetics (NTD)

Courses

NTD 1101 Introduction to Dietetics: 1 semester hour.

History of the profession, academic pathway, outline of internship expectations, career opportunities, and professional ethics. S

NTD 1139 Consumer Nutrition: 3 semester hours.

Introduction to nutrition, relationships among food choices, levels of nutrition, health of the individual and family. Experiences in dietary analysis, label and advertising critiques, and discussions of current trends. Designed for non-science majors. D

NTD 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

NTD 2205 Foods and Meal Management: 3 semester hours.

Discussion of the fundamental processes centering on the physical and chemical properties of foods, their selection and preparation, with emphasis on how foods fit into menu planning for nutritious meals. Food safety, food resource management, food regulations and label reading are also covered. COREQ: NTD 2205L. S

NTD 2205L Foods and Meal Management Lab: 1 semester hour.

Application of food principles discussed in lecture to include food preparation, food chemistry experiments, recipe sampling and comparison. All food preparation is done using appropriate food safety practices. S

NTD 2239 Nutrition: 3 semester hours.

Descriptive survey of nutrients required by the human body and the health consequences of nutrition practices. Study of food sources and proper dietary selection needed to fulfill human needs. Partially satisfies Objective 5 of the General Education Requirements. F, S, SU

NTD 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

NTD 3312 Quantity Foods: 3 semester hours.

Principles and procedures for preparation of quantity food. Experiences in food production facilities with coordination of management principles through cost control, supervision, and food production. PREREQ: NTD 2205 and NTD 2205L. COREQ: NTD 3312L. F

NTD 3312L Quantity Foods Laboratory: 1 semester hour.

Practical application of food production methods in various facilities. COREQ: NTD 3312. F

NTD 3340 Nutrition for Health Professionals: 3 semester hours.

Nutrition through the lifecycle, function of nutrients in the body, medical nutrition therapy in the treatment and prevention of diseases. PREREQ: BIOL 3301 or BIOL 3302 or HO 0111. F, S

NTD 3360 Nutrition Through the Lifecycle: 3 semester hours.

Nutrition in pregnancy, lactation, infancy, childhood, adolescence, adulthood and senior adulthood. Physiological changes during the lifecycle and changing nutrient needs. PREREQ: NTD 2239. F

NTD 4400 Nutrition Assessment and Instruction: 3 semester hours.

Assessment of nutrition status of individuals through anthropometric, clinical, and dietary assessment and discussion of theories of behavioral modification, models and techniques, communication skills in nutrition instruction. PREREQ: NTD 3360. S

NTD 4401 Medical Nutrition Therapy I: 3 semester hours.

Application of nutrition principles and the nutrition care process in the prevention and treatment of obesity, diabetes mellitus, cardiovascular disease, nutrition support, and diseases of the respiratory tract, gallbladder, and pancreas. PREREQ: Acceptance into Didactic Program in Dietetics, NTD 3360, NTD 4400. F

NTD 4402 Medical Nutrition Therapy II: 3 semester hours.

Application of nutrition principles and the nutrition care process in the treatment of renal, liver, gastrointestinal, neoplastic, and neurological diseases, critical care and pediatric nutrition needs. PREREQ: NTD 4401. COREQ: NTD 4402L. S

NTD 4402L Medical Nutrition Therapy II Lab: 1 semester hour.

Application of the nutrition care process, nutrition assessment principles, and nutrition instruction. PREREQ: NTD 4401. COREQ: NTD 4402. S

NTD 4407 Principles of Community Nutrition: 3 semester hours.

Introduction to nutritional programming and education in community and public health settings. Emphasis on principles of needs assessments, program planning, implementation and evaluation. Discussion of national nutrition status, food insecurity and identification of those at highest risk. PREREQ: NTD 3360, or NTD 2239 and permission of instructor. F

NTD 4408 Applications in Community Nutrition: 3 semester hours.

Application of nutritional programming and education in community and public health settings. Emphasis on conducting needs assessments, program planning, implementation and evaluation, nutrition presentations and nutrition counseling skills development. PREREQ: NTD 4407. S

NTD 4409 Professional Readings: 1-3 semester hours.

Identification and investigation of conceptual ideas about the relationship of programs, trends, legislation, and developments in food and nutrition. PREREQ: Permission of instructor. D

NTD 4410 Management in Dietetics: 3 semester hours.

Principles and concepts of management practice and use of resources in dietetic operations. PREREQ: NTD 3312; MGT 3312 and ACCT 3303 suggested. S

NTD 4439 Sports Nutrition: 3 semester hours.

Nutrition recommendations for competitive and recreational athletic performance. Rationale for nutrition practices through an examination of individual nutrient metabolism. Controversies and misinformation addressed. PREREQ: NTD 2239. D

NTD 4457 Experimental Foods: 3 semester hours.

Development of experimental methods and their application to cookery and food technology; preparation of student for independent investigation in foods; acquaintance with literature in the field. Two hours lecture/four hours laboratory. PREREQ: Junior standing, NTD 2205 and NTD 2205L. F

NTD 4461 Nutritional Biochemistry I: 3 semester hours.

Advanced study of nutrition science, including protein, carbohydrate, lipid, vitamin, and mineral metabolism. Introduction to research methodology and professional literature. PREREQ: NTD 2239, CHEM 1101, CHEM 1102, and CHEM 1103 or higher levels of chemistry including inorganic, organic, and biochemistry. F

NTD 4470 Dietetics Senior Seminar: 2 semester hours.

Current issues in food and nutrition. Discussion of research and application to practice. PREREQ: Senior in Dietetics. F

NTD 4481 Special Problems in Nutrition and Dietetics: 1-2 semester hours.

Students select problems on the basis of special needs, interests, or abilities and work on them independently in the laboratory, library, or community, with regular conferences with the advisor. PREREQ: Permission of instructor. D

NTD 4485 Nutritional Biochemistry II: 3 semester hours.

Human metabolism in health and disease. Emphasizes interrelationships among hormones, carbohydrates, proteins, lipids, vitamins and minerals within tissues and organs. PREREQ: NTD 4461 or permission of instructor. S

NTD 4486 Dietetic Internship Seminar I: 6 semester hours.

Advanced studies in given areas of community nutrition, clinical nutrition and food systems management. Students investigate and present current research problems. Oral and written reports required. Graded S/U. COREQ: NTD 4488. F

NTD 4487 Dietetic Internship Seminar II: 6 semester hours.

Advanced studies in given areas of community nutrition, clinical nutrition and food systems management. Students investigate and present current research problems. Oral and written reports required. Graded S/U. PREREQ: NTD 4486 and NTD 4488. COREQ: NTD 4489. S

NTD 4488 Internship in Dietetics I: 11 semester hours.

Supervised field experience at regional health care facilities, food service establishments, and community programs. Graded S/U. PREREQ: Admission into Dietetic Internship program. COREQ: NTD 4486. F

NTD 4489 Internship in Dietetics II: 11 semester hours.

Continuation of NTD 4488 with supervised field experience at regional health care facilities and food service establishments and community programs. Emphasis on entry level skills in clinical, community, and administrative dietetics. Graded S/U. PREREQ: NTD 4486 and NTD 4488. COREQ: NTD 4487. S

NTD 4492 Special Problems in Nutrition and Dietetics: 1-2 semester hours.

Students select problems on the basis of special needs, interests, or abilities and work on them independently in the laboratory, library, or community, with regular conferences with the advisor. PREREQ: Permission of instructor. D

NTD 4495 Dental Nutrition: 1 semester hour.

This course reviews the role of nutrition in attaining and maintaining optimum oral health. The course explores how the essential nutrients influence oral health, nutrition in special populations, and nutrition and disease processes that can influence oral health. This course is only available to students in the Idaho Dental Education Program in the Department of Dental Science. S

NTD 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Division of Health Sciences (DHS)

Courses

DHS 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

DHS 4401 Mindfulness in Health Science: 1-2 semester hours.

Basic mindfulness practice to increase stress tolerance, compassion and immune system functioning. Students will learn meditation, mindful movement and other practices for their own benefit and will learn to teach them to others. May be repeated. F

DHS 4402 Survey of Aging Issues: 3 semester hours.

Introduction to the broad spectrum of issues involved in the study of aging. Theories of aging, health promotion, demography, and multicultural aging are some topics presented in survey fashion. PREREQ: Junior standing. F

DHS 4403 Interprofessional Systems in Geriatric Management: 3 semester hours.

Application of principles and concepts necessary to integrate theory into the practice of care coordination and management of the older adult. The scope and competencies of healthcare professionals in caring for the older adult are explored. PREREQ: Junior standing; C or better in DHS 4402. S

DHS 4404 Geriatric Interprofessional Collaborative Practice Internship: 2 semester hours.

Practical experience in health care arenas focusing on the older adult. This includes a capstone project related to the application of principles and concepts of interprofessional collaborative practice. PRE-or-COREQ: DHS 4403. PREREQ: Junior standing; C or better in DHS 4402. S

DHS 4405 Effects of Mindfulness Practice: 1 semester hour.

This course examines physical, medical, psychological, and neurophysiological effects of mindfulness meditation on the patient and clinician, from an interprofessional perspective. S

DHS 4406 The Mindful Practitioner: 2 semester hours.

This seminar for the clinical practitioner in health professions discusses the direct effects of mindful meditation practice on clients and practitioners, and provides advanced mindfulness practice training. F

DHS 4407 Experience in Human Anatomy: 1 semester hour.

Provides experience with prosected human cadaver specimens under direct supervision and guidance by DHS faculty member. PREREQ: Permission of instructor. F, S

DHS 4408 Mindful Self-Compassion: 2 semester hours.

This seminar for the clinical practitioner and students in health professions discusses the direct effects of mindful meditation and compassion practice on clients and practitioners, and provides advanced mindfulness and compassion practice training. S

DHS 4409 Mindful Education Creating Compassionate Community: 1 semester hour.

This seminar for the education professionals and students discusses the direct effects of mindful meditation practice on educators and their students, K-12, and provides advanced mindfulness training and explores strategies for integrating these practices into the classroom. S

DHS 4410 Fundamentals of Mindfulness: 2 semester hours.

This course provides the student with core skills and practice in multiple forms of mindfulness meditation. The course emphasizes developing functional application of mindfulness practices in all daily activities. F

DHS 4411 Introduction to Mindfulness Practice: 1 semester hour.

This course provides the student with core skills and practice in mindfulness meditation. Skills developed include examination of the 4 foundations of mindfulness and practice in the varied forms of meditation. F,S

DHS 4417 Interdisciplinary Evaluation Team: 1 semester hour.

Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Equivalent to CSD 4417, NURS 4417, PSYC 4417, and SOWK 4417. PREREQ: Permission of instructor. S

DHS 4426 Evidence Based Research in Health Sciences: 3 semester hours.

Study of the use of current research evidence in health care decision-making. Topics include critical analysis of health-related information, biostatistics, and application of evidence-based practice to health care. PREREQ: MATH 1153 or MGT 2216. F, S

DHS 4480 Genetics for Health Care Professionals: 2 semester hours.

An in-depth, interdisciplinary review of the impact of genetics on patients and patient care and the biological, social, ethical and legal issues surrounding genetics and genomics. Equivalent to CSD 4480 and NURS 4480. Su

DHS 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Economics (ECON)

Courses

ECON 1100 Economic Issues: 3 semester hours.

Introduction to current economic issues and how they affect individuals and society. Inflation, unemployment, government spending, taxes, wages, discrimination, retirement, welfare, education, profits, poverty, pollution, quality of life, and other issues will be discussed. This course may not be taken if both ECON 2201 and ECON 2202 have been taken. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

ECON 2201 Principles of Macroeconomics: 3 semester hours.

Introduction to the U.S. economy. Includes analysis of demand and supply as well as the topics of natural output, unemployment and inflation. Examines the roles of governmental spending and taxation and monetary policy conducted by the Federal Reserve. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

ECON 2202 Principles of Microeconomics: 3 semester hours.

Introduction to demand and supply with applications to elasticity, consumer behavior, the cost structure of firms, the behavior of firms in industries that range from having monopoly power to being competitive, and the role of government in a market economy. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

ECON 3301 Macroeconomic Theory: 3 semester hours.

Examines and analyzes aggregate economic activity as measured by the unemployment rate, inflation rate, and total output. Monetary and fiscal policy are explored and evaluated for stabilization purposes; economic growth is explained. PREREQ: MATH 1143 and ECON 2201. F

ECON 3302 Microeconomic Theory: 3 semester hours.

Examines and analyzes how rational buyers make optimal choices given their budgetary constraints and preferences. Examines and analyzes how sellers make profit-maximizing decisions under different market structures. Explains how these individual choices are coordinated into outcomes which result in an efficient allocation of limited resources. PREREQ: ECON 2202. S

ECON 3306 History of Economic Doctrines: 3 semester hours.

Overview of the academic and philosophical development of economic thought since its inception to modern times. Readings will come from original sources including Aristotle, Aquinas, Smith, Malthus, Ricardo, Marx, Mill, Marshall, Veblen, and Keynes. D

ECON 3323 Economic History: 3 semester hours.

Qualitative and quantitative analysis of how society has dealt with the ever changing landscape of structural change and economic growth. How institutions evolve in response to the conflict of perpetuating the status quo and anticipating new technology reveals insights attainable only with an economics perspective. D

ECON 3341 Contemporary Labor Economics: 3 semester hours.

Apply economic theories to issues affecting workers in the 21st century. These include labor's supply and demand, wages, human capital, unemployment, collective bargaining, fringe benefits, and government legislation. PREREQ: ECON 2202. D

ECON 3352 Environmental Economics: 3 semester hours.

Analysis of the interaction between the natural environment and the economy, including how our decisions, values and institutions affect the quality of the environment. Examine the conditions required for a market allocation to be efficient, the reasons why a market economy could fail to provide an efficient allocation of environmental resources, how this market failure results in environmental degradation, and the economics of various environmental policies. PREREQ: ECON 2202. S

ECON 3362 Theory of Interest: 3 semester hours.

Interest rate concepts applied to solving time value of money problems such as: valuation of bonds and annuities (level, arithmetic increasing/decreasing, geometric increasing/decreasing), loan amortization, capital budgeting, portfolio returns (dollar-weighted and time-weighted) and portfolio management (immunization). Introduction to financial instruments, including derivatives, and the no-arbitrage concept. Suitable for students pursuing a career in actuary, insurance or risk management. PREREQ: ECON 2201, ECON 2202; MATH 1160 or MATH 1170; and MATH 1153 or MGT 2216. F

ECON 3384 Mathematics for Economics: 3 semester hours.

Introductory study of mathematical methods that are frequently used in economics. Includes their application to basic economic theory. PREREQ: ECON 2201 and ECON 2202 or permission of instructor. D

ECON 3393 Economics Internship: 1-3 semester hours.

Internship program coordinated by faculty providing significant exposure to Economics issues. May not be used to fulfill major requirements. F, S

ECON 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ECON 4404 Games Conflicts Cooperation and Strategy: 3 semester hours.

Use game theory to model conflicts, cooperation and strategy, with applications in economics, business, political science, psychology, sociology, anthropology and biology. Equilibrium concepts, information structures, static and multi-period games will be discussed. PREREQ: ECON 2201 and ECON 2202 or permission of instructor. D

ECON 4409 Industrial Organization: 3 semester hours.

Industrial organization extends the theory of the firm to examine firms' strategic behavior, including methods to differentiate products and aggressive pricing schemes, and the government's response to these activities. PREREQ: ECON 2201 and ECON 2202. D

ECON 4411 Political Economy: 3 semester hours.

A critical introduction to the relationship between economic institutions and social analysis. The social implications of different views on economic concepts, such as the division of labor, capital, and value, are investigated from a classical, neoclassical and an institutional perspective. PREREQ: ECON 2201 and ECON 2202. D

ECON 4431 Money and Banking: 3 semester hours.

The study of financial instruments, money, interest rates, the banking industry, and the structure and monetary policies of the Federal Reserve Bank. An examination of past and present monetary policy. PREREQ: ECON 2201 and ECON 2202. F

ECON 4433 Economic Development: 3 semester hours.

A study primarily focused on differences between affluent areas of the world and developing nations and how this knowledge can be used to improve economic performance globally. In addition, a portion of the course will examine regional economic development models. PREREQ: ECON 2201 and ECON 2202. D

ECON 4434 International Trade: 3 semester hours.

Explain international trade patterns of goods, services and factors. Study government trade policies, trade laws, and national and international trade institutions. Study trade strategy from the perspective of governments and business. Understand the different levels of economic integration among countries and the political economy of trade policies and trade conflicts/cooperations. PREREQ: ECON 2201 AND ECON 2202. OS

ECON 4435 International Finance: 3 semester hours.

Study foreign exchange market and theories of exchange rate determination. Discuss the effectiveness of fiscal and monetary policies in an open economy and the implications of international macroeconomic policy coordination/conflict for government officials and business. Learn about foreign exchange hedging and risk management for country and business. Study lessons from recent international financial crises. PREREQ: ECON 2201 and ECON 2202. ES

ECON 4438 Public Finance: 3 semester hours.

Study of government revenues, expenditures, and debt management, including an analysis of the effects of these governmental activities on the American economy. PREREQ: ECON 2201 and ECON 2202. OF

ECON 4439 State and Local Finance: 3 semester hours.

Study of taxation, borrowing and spending by state, city, county and other local governments. Taxing and spending patterns are evaluated and compared by states. PREREQ: ECON 2201 and ECON 2202. D

ECON 4440 Economics of Health Care: 3 semester hours.

Introduction to the economics of health and health care. Explores the health care sector and health policy issues from an economic perspective, and discusses how economic principles can be used to analyze health care issues and explain the behavior of patients, medical care providers, third-party payers, and employers in health care markets. PREREQ: ECON 2202. F

ECON 4474 Capstone Economic Concepts, Study, and Issues: 3 semester hours.

Discussion driven capstone class that integrates selected topics in economics. Students will be required to do economic research, and write on and discuss current economic issues. PREREQ: At least senior standing. S

ECON 4485 Econometrics: 3 semester hours.

Overview of the practice of econometrics, which combines economic theory, analytical reasoning and statistical techniques to better understand and interpret economic, social science and experimental data. The primary purposes of econometrics are the estimation of equation coefficients, hypothesis testing, and forecasting. PREREQ: ECON 2201, ECON 2202, and either MGT 2216 or MATH 1153. F

ECON 4491 Seminar: 1-3 semester hours.

F

ECON 4492 Special Problems in Economics: 1-3 semester hours.

Reading, discussion, and reporting on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: Senior status in Economics and permission of instructor. D

ECON 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Education (EDUC)

Courses

EDUC 1110 Education and Schooling in the U.S.: 3 semester hours.

Survey of historical, sociological, and political issues related to public education and the system of schooling in the U.S. Partially satisfies Objective 6 of the General Education Requirements. F, S

EDUC 1150 Educational Careers: 1 semester hour.

An introduction to careers in education via faculty presentations, guest speakers, collaborative learning activities, and assignments. The course is intended for candidates interested in exploring careers in education. F, S

EDUC 1170 Tutoring Reading: 1 semester hour.

Intensive reading strategies for the tutelage of children or adults. Interactive learning, lecture and demonstrations enable candidates to provide basic tutoring skills in literacy. Meets tutoring requirements for America Reads and other volunteer reading initiatives. Can be repeated for up to 2 credits. PREREQ: Permission of instructor. Graded S/U. D

EDUC 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

EDUC 2201 Development and Individual Differences: 3 semester hours.

Examination of human development/individual differences as a basis for reflecting on learning. Requires 16 hours of field experience in designated settings. PREREQ: 26 credits completed; 2.75 GPA; "C" or higher in ENGL 1101 or ENGL 1101P. F, S, Su

EDUC 2204 Families Community Culture: 3 semester hours.

Examination of interactions among school, family, community, and culture as a basis for reflecting on the social contexts of learning. Requires 15 hours of field experience and travel to designated settings with diverse populations. Satisfies Objective 9 of the General Education Objectives. F, S, Su

EDUC 2210 Peer Tutor Training: 1 semester hour.

Introduction to individual and small group tutoring with adult students. Emphasis on teaching strategies, communication skills, ethics, and learning styles. Graded S/U. F, S

EDUC 2215 Using Technology in a Digital World: 3 semester hours.

Provides strategies and techniques to function effectively in a dynamic technological era, promotes development of practical computer-related skills in various software packages for immediate application to varied curricular areas and future workplaces, facilitates the development and application of problem-solving skills, and addresses the economic, ethical, legal, and social issues related to the use of technology in education and other professional fields. F, S, Su

EDUC 2235 Introduction to Elementary Art Methods and Materials: 1 semester hour.

Exploration of media, methods, and materials useful in the integration of art with the elementary curriculum. F, S, Su

EDUC 2295 Field Practicum: 1 semester hour.

Introduction to fieldwork in education. Fieldwork experiences may include individual and small group tutoring, presentations, involvement in Future Educators associations and service learning. Emphasis on teaching strategies, learning styles, and methods of instruction. F, S

EDUC 3301 Inquiring Thinking Knowing: 3 semester hours.

Examination of multiple perspectives on inquiring, thinking, and knowing as a basis for reflecting on educational practice. PREREQ: Admission to Teacher Education Program; EDUC 2201 and EDUC 2204. F, S, Su

EDUC 3302 Motivation and Management: 3 semester hours.

Examination of multiple perspectives on student motivation/management of learning environments as bases for reflecting on educational practice. PREREQ: EDUC 2201, EDUC 2204, EDUC 3308. COREQ: EDUC 3311 and EDUC 4408. F, S, Su

EDUC 3308 Foundations of Educational Knowledge, Planning, and Assessment: 3 semester hours.

EDUC 3308 is the foundational course of the ISU Teacher Education Program and is intended to be taken the first semester after admittance to the TEP. EDUC 3308 consists of two components: an ISU classroom component and a minimum 100-hour fieldwork component. For the ISU classroom component, teacher candidates will be introduced to foundational educational concepts and terminology, including: lesson and unit planning and analysis; Idaho Core and content standards; Danielson Framework for Teaching; educational assessment (assessing student learning, assessing curriculum effectiveness); strategies for teaching and learning; and APA. In the fieldwork component, teacher candidates will be placed in K-12 schools according to their majors/endorsements and their overall Fieldwork Placement Plan. During the EDUC 3308 field experience, candidates will complete focused observations, analyses, application assignments, and teaching assignments. PREREQ: Admission to TEP program; completion of Fieldwork Placement Plan. F, S

EDUC 3309 Instructional Planning Delivery and Assessment: 6 semester hours.

Analysis of multiple planning models, teaching methods, assessment approaches as bases for instructional decision making, delivery, and the assessment of learning. PREREQ: EDUC 3302, and SPED 3350. F, S

EDUC 3310 Efficient Reading: 1 semester hour.

Emphasis on developing flexibility and acceleration of reading speed and refinement of comprehension skills through intensive practice of rapid reading and comprehension building techniques applied to fiction and textbook reading. PREREQ: Permission of instructor. Graded S/U. D

EDUC 3311 Instructional Technology: 3 semester hours.

Analysis of content, strategies, and evaluation for integrating technology into school curricula. Includes word processing, spread sheets, databases, communication, and presentation software. PREREQ: EDUC 3308; IC3 Key Applications Exam. COREQ: EDUC 4408. F, S

EDUC 3321 Integrated Language Arts Methods: 3 semester hours.

Theory and application of teaching methods for word recognition strategies and integrated language arts skills in preK-elementary schools. Thirty-hour laboratory experience required. PREREQ: Admission to Teacher Education Program. PRE-or-COREQ: EDUC 3301, EDUC 3308. F, S

EDUC 3322 Literature for Children across the Curriculum: 3 semester hours.

Study of different types of children's literature, authors, and poets. Emphasis on strategies for implementing literature in grades K-8. Fifteen hour lab required. PREREQ: Admission to Teacher Education Program. F, S

EDUC 3330 Elementary Math Methods: 3 semester hours.

Study of the subject matter of elementary math programs. Emphasis on teaching methods and materials. Field experience required. PREREQ: MATH 2256, MATH 2257, and EDUC 3308. F, S

EDUC 3331 Science Methods for Teachers: 3 semester hours.

This course investigates the scope and sequence of the K-12 science curriculum, instructional strategies, and research into how students learn science. Strategies for teaching the Science and Engineering Practices, Crosscutting Concepts, and Disciplinary Core Ideas and implementing the Idaho State Science Standards K-12 will be explored. Topics include laboratory and field safety, assessment, planning, discussions, integration of literacy and technology, and the adaptation of instructional strategies for use in the K-12 school science classroom. Field experience may be required. PREREQ: EDUC 3308.F, S

EDUC 3334 Secondary School Art Methods and Materials: 3 semester hours.

Demonstrations and practical methods and problems involved in teaching art. Practical work in all art media used at the secondary school level. Equivalent to ART 3334. D

EDUC 3335 Elementary School Art Methods and Materials: 2 semester hours.

Demonstrations and practical methods and problems involved in teaching art. Practical work in all art media used at the elementary school level. Some craft work. Su

EDUC 3336 Social Science Methods: 3 semester hours.

Study of subject content of the social studies program with emphasis on methods and materials used by the teacher, K-12. Field experience required. PREREQ: EDUC 3308. F,S

EDUC 3340 Methodology and Diagnosis in ECE: 1-5 semester hours.

Supervised practice in an approved nursery, day care center, and/or kindergarten based upon the results of diagnostic/prescriptive procedures utilized during prior coursework which indicates the student's progression and needs. PREREQ: Permission of Early Childhood Coordinator and admission to Teacher Education Program. D

EDUC 4401 Content Area Literacy: 3 semester hours.

Synthesis of principles of language and literacy as a basis for teaching in all curriculum areas. PREREQ: Admission to Teacher Education Program. F, S, Su

EDUC 4408 Pre-Internship Field Experience Seminar: 3 semester hours.

Teacher candidates synthesize and apply knowledge gained in previous core teacher education coursework through documenting teaching performances by planning, assessing, and instructing learners in a K-12 school setting. During a field experience, candidates will work collaboratively with other teacher candidates, classroom teachers, and university faculty to develop and teach lessons to meet diverse student needs, Idaho Core and Content Standards, and classroom learning goals. PREREQ: EDUC 3308. COREQ: EDUC 3311. F, S

EDUC 4419 Developmental Literacy: 3 semester hours.

Instructional planning and strategies for reading and writing emphasizing early literacy and language development, comprehension and metalinguistic awareness for all populations pre K-8. Graduate candidates complete three topical article summaries on three different areas of the literacy developmental process and submit a graduate research paper focusing on one aspect of literacy development. PREREQ: EDUC 3321. F, S, Su

EDUC 4420 Advanced and Compensatory Reading in the Content Areas: 3 semester hours.

Advanced training in developmental, remedial reading emphasizing independent strategies in study skills, critical/creative reading, metacognition. Content area application. PREREQ: Teacher experience or permission of instructor. D

EDUC 4424 Assessing Literacy Abilities: 3 semester hours.

Methods of assessment in literacy. Introduction to case study, formal and authentic measures of comprehension, vocabulary, study strategies, and writing. PREREQ: EDUC 4419 or permission of instructor. F, Su

EDUC 4426 Remediation of Literacy Problems: 3 semester hours.

Teaching strategies for remediating problems in literacy. Emphasis on planning, implementing, and evaluating approaches and materials. PREREQ: EDUC 4424. S, Su

EDUC 4460 Foundations of ESL: 3 semester hours.

Study of ESL learner characteristics, historical, philosophical, cultural and linguistic foundations of ESL. Theories of language acquisition and those of leaders in the field will be included. PREREQ: Admission to Teacher Education Program. S

EDUC 4463 ESL Methods: 3 semester hours.

Language assessment, planning, and delivery, for teaching limited English proficient K-12 students. Appropriate methods for students at various developmental stages of language acquisition will be studied. PREREQ: Admission to Teacher Education Program, EDUC 3308, EDUC 4460 or permission of instructor. F

EDUC 4464 ESL Practicum: 1 semester hour.

Field experience in settings with English-as-a-second-language learners. COREQ: EDUC 4463 or permission of instructor. F

EDUC 4470 Advanced Mathematics Methods: 3 semester hours.

Study of methods for teaching K-12 mathematics through the modern math approach stressing modeling, discourse, and reasoning. Consideration is given to instructional and curricular modifications to support all students. PREREQ: Admission to the Teacher Education Program. D

EDUC 4471 Interpersonal Communications: 2 semester hours.

Examination of basic concepts, principles, models, and theories of interpersonal communications and their application to educational settings. D

EDUC 4472 Dynamics of Instructional Groups: 2 semester hours.

Theory, practice, and research associated with dynamics of instructional groups are presented in an experiential format with emphasis on formation, structure, and process. D

EDUC 4481 Contemporary Issues in Education: 1-3 semester hours.

Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4482 Contemporary Issues in Education: 1-3 semester hours.

Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4483 Instructional Improvement for Teachers: 1-3 semester hours.

Study of ways by which teachers can improve instruction in their own classrooms with emphasis on the findings of research and experiences. D

EDUC 4485 Independent Problems in Education: 1-3 semester hours.

Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors in education. Experience in research composition. May be repeated with permission of instructor. PREREQ: Permission of instructor. F, S, Su

EDUC 4486 Content Specialist Practicum: 1 semester hour.

This course provides university supervision for candidates who have been hired by a school district on a content specialist alternative route contract, and will include the state requirements of evaluations, common summative assessment (CSA) and individualized performance learning plan (IPLP). May be repeated. Graded S/U. PREREQ: Permission of instructor. F, S

EDUC 4487 Teacher to New Endorsement Practicum: 1 semester hour.

This course provides university supervision for candidates who are currently certified teachers adding an additional endorsement to their credential and will include the state requirements of the evaluations, common summative assessment (CSA) and individualized performance learning plan (IPLP). May be repeated. Graded S/U. PREREQ: Permission of instructor. F, S

EDUC 4491 Seminar: 1-3 semester hours.

Critical analysis of the literature in one or more areas of education. Limited enrollment. PREREQ: Permission of instructor. F, S, Su

EDUC 4492 Secondary Music Education Student Teaching Internship: 6-12 semester hours.

Candidates assume instructional and management responsibilities in a supervised secondary school music setting. Includes weekly professional development seminar. May be repeated up to 12 credits. PREREQ: Admission to Teacher Education Program, MUSC 3334 and MUSC 3335, and/or approved application. Graded S/U. F, S

EDUC 4494 Elementary Education Student Teaching Internship: 6-12 semester hours.

Candidates assume instructional and management responsibilities in supervised primary/elementary setting. Includes weekly professional development seminar. May be repeated. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4495 Junior High or Middle School Student Teaching Internship: 7-14 semester hours.

Candidates assume instructional and management responsibilities in supervised middle/junior high school setting. Includes weekly professional development seminar. May be repeated. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4496 Secondary Education Student Teaching Internship: 6-12 semester hours.

Candidates assume instructional and management responsibilities in supervised high school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

EDUC 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Electrical Apprenticeship (ELAP)

Courses

ELAP 0100 Electrical Internship Year 1: 10 semester hours.

First year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

ELAP 0101 Electrical Theory Year 1: 3 semester hours.

Theory and instruction in orientation to the electrical trade, safety, basic math, electrical DC theory through combined circuits, introduction to the National Electric Code, and general wiring methods. D

ELAP 0150 Electrical Internship Year 2: 10 semester hours.

Second year (2,000) hours of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

ELAP 0151 Electrical Theory Year 2: 3 semester hours.

Theory and instruction in safety, electrical AC theory through R.L.C., advanced math, motors/generators basics, transformer basics, overcurrent protection, and grounding. D

ELAP 0200 Electrical Internship Year 3: 10 semester hours.

Third year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

ELAP 0201 Electrical Theory Year 3: 3 semester hours.

Theory and instruction in safety, blueprint reading, motor control bases, advanced grounding, advanced transformers/motors/generators, and special occupancy and wiring methods. D

ELAP 0250 Electrical Internship Year 4: 10 semester hours.

Fourth year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

ELAP 0251 Electrical Theory Year 4: 3 semester hours.

Theory and instruction in safety, advanced motor controls, load calculations, leadership skills, high voltage, and National Electrical Code review. D

Electrical Engineering (EE)

Courses

EE 1101 Electrical Engineering and Society: 1 semester hour.

Survey and history of the electrical engineering profession. F

EE 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

EE 2240 Electrical Circuits I: 3 semester hours.

Passive circuit elements. DC circuits. Voltage and current circuits. Circuit laws, theorems and node and loop analysis. Transients in RLC circuits. Computer-aided circuit analysis. PREREQs: MATH 1170 and MATH 2240. F

EE 2240L Electrical Circuits I Laboratory: 1 semester hour.

Laboratory course emphasizing DC circuits with OP-AMP, simple RLC transient phenomena, basic electrical measurements and methods. PRE-or-COREQ: EE 2240. F

EE 2245 Principles of Electrical Circuits: 3 semester hours.

Ohm's and Kirchhoff's laws; analysis of DC and AC circuits, first-order transient circuits, introduction to OP-AMPs and DC motors. Non-EE majors only. PRE-or-COREQ: MATH 1175 and PHYS 2212. F

EE 2274 Introduction to Digital Systems: 3 semester hours.

Number systems; Boolean algebra fundamentals; system reduction, combinational and sequential logic. PREREQ: EE 1101. PRE-or-COREQ: EE 2274L. F

EE 2274L Introduction to Digital Systems Laboratory: 1 semester hour.

Laboratory experience in the construction of basic digital logic circuits and state machines. PRE-or-COREQ: EE 2274. F

EE 3301 Software Methodology and Tools for Electrical Engineering: 3 semester hours.

Introduction to electrical engineering problem solving methods. Typical numerical and analytical problems in electrical engineering are examined. Introduction to mid or low-level procedural compiled languages and their applications to interface with hardware. PREREQ: CS 1181. F

EE 3325 Electromagnetics: 3 semester hours.

Vectors and fields, electrostatics, magnetostatics, electrodynamics, Maxwell's equations, boundary value problems, plane and guided waves. PREREQ: EE 3340, MATH 2275, and PHYS 2212; MATH 3360 recommended. F

EE 3329 Introduction to Electronics: 3 semester hours.

Introduction to semiconductor theory, diodes, bipolar junction transistors and amplifiers, metal-oxide-semiconductor field effect transistors and amplifiers, and frequency response. PREREQ: CHEM 1111. PRE-or-COREQ: EE 3340. S

EE 3340 Electrical Circuits II: 3 semester hours.

AC circuits. Design of passive and active filters. Three-phase circuits. Computer-aided circuit analysis. PREREQ: EE 2240 and MATH 2240. PRE-or-COREQ: EE 3340L and MATH 1175. S

EE 3340L Electrical Circuits II Laboratory: 1 semester hour.

Laboratory experience emphasizing AC circuits including: phasors, power, three-phase, transformers, and frequency response. PRE-or-COREQ: EE 3340. S

EE 3345 Signals and Systems: 3 semester hours.

Linear time-invariant systems, continuous and discrete; Fourier series, Fourier transforms; discrete Fourier transforms; Laplace transforms, z-transforms; state-space analysis. PREREQ: EE 3340. PREREQ or COREQ: MATH 3360. F

EE 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated

EE 4416 Applied Engineering Methods: 3 semester hours.

Applied discrete and continuous probability, random variables, probability distributions, sampling, data description, parameter estimation, hypothesis testing, inference, correlation and linear and multiple regression. PREREQ: MATH 1175. S

EE 4418 Communication Systems: 3 semester hours.

Basic principles of analysis and design of modern analog and digital communication systems, including transmission and reception. PREREQ: EE 3329, EE 3345 and EE 4416. S

EE 4426 Computer Architecture and Organization: 3 semester hours.

Design, implementation, and performance evaluation of modern computer systems; instruction sets; datapath and control optimizations; single-cycle, multiple-cycle, and pipelined processors; hazard detection and resolution; memory hierarchies; peripheral devices. PREREQ: EE 2274, EE 2274L and EE 3301. F

EE 4427 Embedded Systems Engineering: 2 semester hours.

Integration of algorithms, software and hardware to design real-time and embedded systems for signal processing and control. PREREQ: EE 4426 or CS 1337. COREQ: EE 4427L. S

EE 4427L Embedded Systems Engineering Laboratory: 1 semester hour.

Design and implement embedded signal processing and control systems through the integration of algorithms, software, and hardware. PREREQ: EE 4426 or CS 1337. COREQ: EE 4427. S

EE 4429 Advanced Electronics: 3 semester hours.

Introduction to operational amplifiers and their applications, current mirrors, active loads, differential amplifiers, feedback and stability, filters, oscillators, Schmitt triggers, power amplifiers and voltage regulators. PREREQ: EE 3329. PRE-or-COREQ: EE 4429L. F

EE 4429L Advanced Electronics Lab: 1 semester hour.

Transistor biasing, amplifiers and other basic analog circuit designs. PREREQ or COREQ: EE 4429. F

EE 4432 Introduction to VLSI Systems: 3 semester hours.

Photolithography, CMOS Fabrication, MOSFET Operation, CMOS passive elements, design rules and layout, CAD tools for IC design, inverters, static logic and transmission gates, dynamic logic. PREREQ: EE 2274, EE 2274L, and EE 3329. D

EE 4433 Mixed Signal Design and Synthesis: 3 semester hours.

Analog IC design, Passive components, parasitic elements, component matching, IC layout techniques, amplifiers, current sources, comparators, op amps, noise, switched capacitor circuits. Includes lab work using design automation tools. PREREQ: EE 4432. D

EE 4472 Electrical Machines and Power: 3 semester hours.

Theory and application of electrical machinery and transformers. Power and energy relationships in power systems. PREREQ: EE 3340, EE 3340L and EE 3325. COREQ: EE 4472L. F

EE 4472L Electrical Machines and Power Laboratory: 1 semester hour.

Experimental study of the fundamental physical phenomena and characteristics of transformers, induction motors, synchronous and direct current machines. COREQ: EE 4472. F

EE 4473 Automatic Control Systems: 3 semester hours.

Continuous-time control systems using both frequency-domain and state-space techniques. Topics include design methodology, performance specifications, analysis and design techniques. PREREQ: MATH 3360; and EE 3345 or ME 4405. S

EE 4474 Advanced Circuit Theory: 3 semester hours.

Methods of analog electrical circuit analysis and synthesis. Topics include signal flow graphs, multi-port networks, simulation techniques, and topological methods for formulation of network equations. PREREQ: EE 3340. D

EE 4475 Digital Signal Processing: 3 semester hours.

Discrete, fast Fourier and Z-transforms, correlation, convolution, finite and infinite impulse response digital filter design, spectral analysis and adaptive digital filters. Includes projects. PREREQ: MATH 3360 and EE 3345. S

EE 4476 Semiconductor Processing and Fabrication: 3 semester hours.

Silicon semiconductor processing and basic integrated circuit fabrication. Physics, chemistry and technology in basic processing steps in production of integrated circuits. PREREQ: EE 4432 and PHYS 2212. D

EE 4478 Semiconductor Devices: 3 semester hours.

Operating principles of basic building blocks of modern silicon-based semiconductor devices to include p-n junctions, field effect transistors and bipolar junction transistors. PREREQ: EE 4432 and PHYS 2212. D

EE 4479 Advanced Semiconductor Devices: 3 semester hours.

Review of semiconductor band theory. Opto-electronics, quantum mechanics, heterojunctions, power and microwave semiconductor devices. PREREQ: EE 4478 or equivalent. D

EE 4481 Independent Problems: 1-3 semester hours.

Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. Equivalent to CE 4481. PREREQ: Permission of instructor. D

EE 4482 Principles of Power Electronics: 3 semester hours.

Introduction to steady state converter modeling and analysis. Principles of converter dynamics and control including controller design. PREREQ: EE 3329. PREREQ or COREQ: EE 4473. D

EE 4491 Digital Control Systems: 3 semester hours.

Analysis and design of digital control systems, Z-transforms, transient response, stability, root locus, frequency response, design, state-space and state feedback. PREREQ: EE 4473. D

EE 4495 Senior Seminar: 3 semester hours.

Current topics in Electrical Engineering. Initial selection of Senior Design projects. PREREQ: Permission of instructor and successful completion of all required EE courses numbered less than 4000 and ENGL 3307. F

EE 4496 Project Design: 3 semester hours.

Conceptual design of multidisciplinary projects. Design, analysis, and implementation of senior projects proposed and defined in EE 4495. PREREQ: EE 4495. S

EE 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Electrical Engineering Technology (EET)

Courses

EET 2240 Introduction to Electrical Circuits: 3 semester hours.

DC circuits, passive circuit elements, independent and controlled sources. Circuit laws, theorems and methods of analysis. Transients to RLC circuits. Computer-aided circuit analysis. PREREQ: MATH 1170. F

EET 2274 Introduction to Digital Systems: 3 semester hours.

Number systems, Boolean algebra fundamentals, system reduction, design and analysis of combinational and sequential logic circuits. PRE-or-COREQ: EET 2275. F

EET 2275 Introduction to Digital Systems Laboratory: 1 semester hour.

Number systems, Boolean algebra fundamentals, system reduction, design and analysis of combinational and sequential logic circuits. PRE-or-COREQ: EET 2274. F

EET 3329 Introduction to Electronics: 3 semester hours.

Introduction to semiconductor materials and device theory. Diodes, bipolar junction transistors and metal-oxide-semiconductor field effect transistors. Amplifiers and frequency response. PRE-or-COREQ: EET 3340. S

EET 3340 Fundamentals of Electrical Devices: 3 semester hours.

AC circuits. Design and analysis of passive and active filters. Three-phase circuits. Computer-aided circuit analysis. PREREQ: EET 2240. PRE-or-COREQ: EET 3342 and MATH 1175. S

EET 3342 Fundamentals of Electrical Devices Laboratory: 1 semester hour.

Laboratory experience emphasizing basic electrical measurements and methods. CO-or-PREREQ: EET 3340. S

EET 3345 Signals and Systems: 3 semester hours.

Linear time-invariant systems, continuous and discrete. Fourier series, Fourier transforms, Laplace transforms, z-transforms; state-space analysis, discrete Fourier transforms and the FFT. PREREQ: EET 3340. PRE-or-COREQ: MATH 3360. F

EET 4400 Senior Seminar: 1 semester hour.

Current topics in Electrical Engineering Technology. Selection of senior design projects. PREREQ: Permission of instructor. F

EET 4418 Communication Systems: 3 semester hours.

Basic analysis and design principles for modern analog and digital communication systems. PREREQ: EET 3329 and EET 3345. S

EET 4426 Computer Architecture and Organization: 3 semester hours.

Design, implementation, and performance evaluation of computer systems. Instruction sets, datapath and control optimizations. Single-cycle, multiple-cycle, and pipelined processors. Hazard detection and resolution, memory hierarchies, peripheral devices. PREREQ: EET 2274 and EET 2275. F

EET 4427 Embedded Systems Engineering: 2 semester hours.

Design of real-time and embedded systems for signal processing and control through integration of algorithms, software and hardware. PREREQ: EET 4426 or CS 1337. PRE-or-COREQ: EET 4427L. S

EET 4427L Embedded Systems Laboratory: 1 semester hour.

Laboratory experience in design and implementation of embedded signal processing and control systems through the integration of algorithms, software and hardware. PRE-or-COREQ: EET 4427. S

EET 4429 Advanced Electronics: 3 semester hours.

Introduction to operational amplifiers and their applications, current mirrors, active loads, differential amplifiers, filters, oscillators, Schmitt triggers, power amplifiers and voltage regulators. Feedback and stability. PREREQ: EET 3329. F

EET 4472 Electrical Machines and Power: 3 semester hours.

Theory and application of electrical machines and transformers. Power and energy relationships. PREREQ: EET 3340 and EET 3342. PRE-or-COREQ: EET 4472L. F

EET 4472L Electrical Machines and Power Laboratory: 1 semester hour.

Laboratory experience in the study of fundamental physical phenomena and characteristics of transformers, induction motors, synchronous and DC machines. PRE-or-COREQ: EET 4472. F

EET 4473 Automatic Control Systems: 3 semester hours.

Continuous-time control systems using both frequency-domain and state-space techniques. Topics include design methodology, performance specifications, analysis and design techniques. PREREQ: EET 3345. S

EET 4475 Digital Signal Processing: 3 semester hours.

Discrete, fast Fourier and Z-transforms, correlation, convolution, finite and infinite impulse response digital filter design, spectral analysis and adaptive digital filters. Includes projects. PREREQ: EET 3345. S

EET 4496 Senior Project: 3 semester hours.

Conceptual design of multidisciplinary projects. Design, analysis, and implementation of senior projects proposed and defined in EET 4400. PREREQ: EET 4400. S

EET 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Emergency Mgmt (EMGT)

Courses

EMGT 1101 Incident Command System Basic: 3 semester hours.

Basic through advanced emergency management practices used during an emergency situation. Includes the structure of the Incident Command System, the management of facilities, and typing of resources; the National Incident Management System principles; and the roles of supervisors, commanders and general staff in an Incident Command System environment. D

EMGT 1110 Leadership and Influence: 3 semester hours.

Students will determine how to assess differences in personal values and interpersonal influence styles, and to apply situational behaviors in emergency management. Topics include leadership and influence, conflict management, use of power, and group dynamics. D

EMGT 1121 Principles of Emergency Management: 3 semester hours.

Theories, principles, and approaches to emergency management. Gain knowledge and skills for managing emergencies in order to lessen their impacts on society. Discuss the philosophy of comprehensive emergency management, including mitigation, preparedness, response, and recovery. D

EMGT 1122 Emergency Resources Management: 3 semester hours.

Resource management functions to include hazardous materials response resources, within the overall framework of an Emergency Operations Center. Performance-based learning activities applicable to the field of emergency management. PRE-OR-COREQ: EMGT 1121. D

EMGT 2221 Emergency Management Operations: 3 semester hours.

Examine the terminology, players, and management philosophy of the federal Incident Management System. Emergency Operations Center setup, activation, operation, termination, hazardous materials, staffing, training, and briefings. PRE-OR-COREQ: EMGT 1121. D

EMGT 2222 Emergency Planning: 3 semester hours.

Develop an Emergency Operations Plan using a comprehensive, risk-based and all-hazard approach to ensure that local jurisdictions are prepared to respond effectively following an emergency event to include hazardous materials. PRE-OR-COREQ: EMGT 1121. D

EMGT 2223 Mitigation for Emergency Managers: 3 semester hours.

Program to reduce losses from future disasters, emergencies, hazardous materials and other events caused by natural and man-made hazards. Principles and practices of hazard mitigation at the local through federal levels of governance, emphasizing the importance of avoiding or preventing future and recurring losses. PRE-OR-COREQ: EMGT 1121. D

EMGT 2224 Disaster Response and Recovery: 3 semester hours.

Principles that promote effective disaster response operations and management. Examine the nature of disasters, the context of response operations in the United States, and the roles and responsibilities of various emergency management related actors to include hazardous material. Emphasis on the Incident Command System and its interaction with the Emergency Operations Center. PRE-OR-COREQ: EMGT 1121. D

EMGT 2225 Emergency Management Exercise Design: 3 semester hours.

Develop and conduct disaster exercises to test a community's Emergency Operations Plan and operational response capability to include hazardous materials. Emphasis on design, conduct and evaluation of exercises with the goal of developing, implementing, and managing a comprehensive disaster exercise program. PRE-OR-COREQ: EMGT 1121. D

EMGT 2296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

EMGT 2298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

EMGT 3301 Incident Command System Advanced: 3 semester hours.

Principles and procedures for command and control of emergency situations during natural or man-made disasters including interaction of local, state and federal agencies and public and private organizations. Topics covered in this course are: develop organizational structures, establish staffing requirements, prepare incident briefings, conduct planning meetings, identify resources, develop goals, Area Command and Multiagency Coordination, and implement incident action plans. PREREQ: Federal Emergency Management Agency Emergency Management Institute courses: Introduction to the Incident Command System (ICS 100), Incident Command System for Single Resources and Initial Action Incidents (ICS 200), and An Introduction to the National Incident Management System (NIMS 700). Students must provide documentation for the completion of ICS 100, ICS 200, and NIMS 700 to the Emergency Services Department to enroll in EMGT 3301. D

EMGT 3302 Hazards Mitigation: 3 semester hours.

Students will identify possible kinds of disasters and their related risks or consequences. Hazard Analysis provides the foundation for policy decisions regarding disaster mitigation, preparedness, response, and recovery. Topics include hazard and vulnerability analysis, structure and non-structural mitigation, capabilities assessment, planning, project development and management, and public education. Development planning, political advocacy and networking are heavily stressed. PREREQ: EMGT 2223. D

EMGT 3303 Disaster Response and Recovery Advanced: 3 semester hours.

Theoretical examination and practical application of post-disaster management activities including human behavior in emergency situations, warning, evacuation, sheltering, triage, damage assessment, disaster declaration, debris removal, media relations, crisis counseling, individual and public assistance, and other relevant functions. Decision making, incident command, EOC operations, coordination and service delivery strategies are also discussed. PREREQ: EMGT 2224. D

EMGT 3304 Integrated Systems in Emergency Management: 3 semester hours.

Students will explore the interconnectivity and interdependence of local, state and federal emergency management programs. Students will gain an understanding of how organizational theory applies to emergency management to include the four phases of emergency management, the broader homeland security mission and cooperation between various local, state and federal agencies as well as with the private sector and non-governmental organizations. PREREQ: EMGT 2224. D

EMGT 3305 Political and Policy Basis of Emergency Management: 3 semester hours.

Topics include: emergency management and the American political system, government, political, and organizational issues, and intergovernmental relations. Policy formation process in governmental and local settings. PREREQ: POLS 1101. D

EMGT 3306 Hazardous Materials Management: 3 semester hours.

The material in this course focuses on the organizational use of Hazardous Materials, and the impact of their use on the organization and the environment. Issues raised include the overall economic, social and environmental costs of chemical usage. Emphasis is on proactively identifying hazards in the workplace/ jurisdiction and implementing strategies to reduce use and risk. Equivalent to FSA 3336. D

EMGT 3307 Social Dimensions of Disaster: 3 semester hours.

Topics include: disaster mythology pattern, public response to disaster warnings, individual response to disaster, disaster stress and denial, crisis decision making, and disaster recovery and community change. PREREQ: EMGT 2224. D

EMGT 3308 Leading in Organizations: 3 semester hours.

Through this course students will learn leadership environment, vision, concepts and theories to enhance effectiveness at all levels of leadership as it relates to Emergency Management. This course is designed to allow students to view leadership and how it fits into, shapes, or changes an organization's culture. D

EMGT 3309 Crisis Management and Leadership: 3 semester hours.

Students discuss the leadership and decision-making issues and challenges related to preparing for and responding to a catastrophic incident. The class provides an excellent opportunity to share proven strategies and practices and apply lessons learned from past natural and man-made disasters. This course explores the characteristics of crisis and decision-making styles and the role of leadership styles in this relationship. This course examines the four-stage crisis management framework: 1) Landscape Survey: identifying potential crisis vulnerabilities; 2) Strategic Planning: organizing the crisis management team and writing the plan; 3) Crisis Management: addressing the crisis when it occurs, and 4) Organizational Learning: applying lessons from crises so they will be prevented or mitigated in the future. PREREQ: Minimum grade of C- in EMGT 1110. D

EMGT 3320 Public Administration and Emergency Management: 3 semester hours.

Topics include: intergovernmental and private sector relations, paying for large-scale disasters, land-use planning and hazards, legal and liability issues, and implementing emergency management policies. PREREQ: POLS 1101. D

EMGT 3321 Sociology of Disaster: 3 semester hours.

Topics include: theoretical approaches to disaster research, theory of disaster response, and community sociological impact of disasters. PREREQ: SOC 1101. D

EMGT 3322 AgroTerrorism: 3 semester hours.

This course provides students with an understanding of agro-terrorism, including the definition of agro-terrorism, vulnerabilities of crops, livestock, and food supplies. This course explores ways to help prevent, detect, and respond to problems, pests and pathogens that could be used by terrorists to cause plant health disorders, and animal diseases that could be used in agro-terrorism attacks and understand how prevention and preparedness measures work at the local, state, and federal levels. D

EMGT 3323 Business and Industry Crisis Management: 3 semester hours.

Study of business continuity and the role of businesses in emergencies and disasters. Topics include business area impact analysis and risk perception, crisis management, decision making, and communications. D

EMGT 3324 Geologic Hazards and Emergency Management: 3 semester hours.

This course is intended to help create a new generation of emergency managers who are better informed and better prepared to make decisions, obtain relevant information, and better understand how to make effective impacts upon reduction of earthquake hazards. D

EMGT 3325 Flood Plain Management: 3 semester hours.

This course focuses on the identification and assessment of flood-related hazards and vulnerabilities. Topics include: evaluation of the merit and necessity of implementing various structural and non-structural approaches to reduce flood-related disasters, and discussions about mapping, containment devices, land use planning, early warning systems, and insurance. PREREQ: EMGT 2223. D

EMGT 3326 International Disasters: 3 semester hours.

Exploration of issues pertinent to international disasters, including the susceptibility of under-developed countries to natural disasters, the nature of complex emergencies, and the actors involved in humanitarian activity across national borders. Special attention is given to the social, political and economic barriers that perpetuate the vicious cycle of vulnerability as well as the need for long term solutions that promote beneficial forms of development. PREREQ: EMGT 1121. D

EMGT 3327 Social Vulnerability Approach to Emergency Management: 3 semester hours.

Topics include: development of vulnerability analysis, technological and human-induced causes, structural and situational barriers to disaster resilience, community vulnerability and strategies for new ideas and implementation of social change in disasters. PREREQ: SOC 1101. D

EMGT 3328 Nonprofit Sector and Disasters: 3 semester hours.

Discussion of the different types of non-profit organizations involved in disasters. Identification of relevant roles and special challenges including fund raising, volunteer recruiting, training, and service delivery. PREREQ: EMGT 1121. D

EMGT 3329 Technology in Emergency Management: 3 semester hours.

Application of technology that may be applied in emergency planning, response, recovery, and mitigation; current and emerging technology applications; special issues and problems associated with the use of technology in emergency management. Topics include: use of the Internet, spatial analysis applications, network and communication systems, decision support systems, spreadsheets and word processing, and emerging technologies. PREREQ: EMGT 2221. D

EMGT 3330 Incident Command Teams Position Specific: 2 semester hours.
ICS Command and General Staff school will teach the student how to assume position responsibilities, lead assigned personnel, communicate effectively, and complete assigned tasks to meet identified objectives. These skills provide the foundation for our responders to form Incident Management Teams in their regions. PREREQ: EMGT 3301. D

EMGT 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

EMGT 4401 Research and Analysis Methods in Emergency Management: 3 semester hours.

Students will acquire an introduction to current research pertaining to emergency management, gain an understanding of the processes and requirements for conducting empirical research related to emergency management, including outcomes and techniques for measuring these outcomes. Topics include: measurement and data gathering, program evaluation, questionnaire design, and statistical analysis. Students will also learn how to conduct a local risk and vulnerability assessment as well as a program evaluation. PREREQ: MATH 1153. D

EMGT 4402 Critical Infrastructure Public Private Issues: 3 semester hours.

Students will gain an understanding of large, complex, sometimes risky technical systems. Topics include: normal accident and human factors theory, emergency management, disaster assistance and public utility regulation and deregulation, public policy, and management of risk. Students will conduct collaborative research on critical infrastructure systems and organizations, explore how they are planned and designed, and see how they function during and after a natural or technical disaster or attack. PREREQ: EMGT 4401. D

EMGT 4403 Internship: 3-6 semester hours.

Supervised practice experience in a professional emergency management setting. May be repeated for a maximum total of 6 credits. PREREQ: Permission of the instructor and approval of the program director. D (Required for those with less than 2 years practical experience.)

EMGT 4404 Emergency Management Capstone: 3 semester hours.

Building disaster resilient communities. Topics include: building resilience to hazards, developing skills in formulating programs to strength resilience, assessing existing and emerging community conditions that contribute to vulnerability to hazards, working with and effectively communicating with stakeholders, and working as a member of a problem-solving team to lessen the future vulnerability of communities. PREREQ: Permission of instructor and program director. D

EMGT 4420 Legal Issues in Emergency Management: 3 semester hours.

Overview of important federal and state legislation bearing on emergency management in various types of disasters. PREREQ: EMGT 1121. D

EMGT 4421 Public Health Preparedness: 3 semester hours.

Students will learn the requirements of a public health workforce that is well prepared to respond to a wide range of public health disasters. Topics include program planning, regularly exercised plans, disaster management, timely access to information, clear knowledge of individual and agency rules and responsibilities, reliable communication systems, and integrating volunteers. PREREQ: EMGT 1121. D

EMGT 4422 Terrorism in Emergency Management: 3 semester hours.

In-depth investigation into the ideology forces and groups involved in terrorist activity. Analysis of the effects of terrorism, including the similarities and differences to other types of disasters. Attention is given to weapons of mass destruction and the unique challenges to prevent, prepare for, respond to, and recover from terrorist attacks. PREREQ: EMGT 1121. D

EMGT 4430 Incident Management Teams All Hazards: 3 semester hours.

This course focuses on the importance of developing and operating as a functional team and reinforces the critical foundation for IMT. The course emphasizes competency in various ICS positions and extensive hands-on experience necessary for understanding how IMT members work together and how an individual position is integral to the whole system. Requires instructor permission. PREREQ: EMGT 3330. D

EMGT 4498 Special Topics: 1-3 semester hours.

Addresses the special needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. Examines and analyzes selected topics in Emergency Management. D

EMGT 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Emergency Medical Services (EMS)

Courses

EMS 3300 Emergency Medical Services Operations and Management: 3 semester hours.

Principles of personnel management and process that contribute to the effectiveness of an EMS organization. Topics include human resource management, resource allocation, and procurement policy. D

EMS 3310 Development and Strategic Planning: 3 semester hours.

Students will learn the strategic planning process to include the objectives, purpose of goals and major policies, and plans for achieving those goals within the different EMS settings. D

EMS 3320 Disaster Response Planning and Management: 3 semester hours.

Planning for and management of multiple-casualty incidents in the pre-hospital and hospital environment, including development of response plans, triage, medical evacuation procedures, communications, roles of governmental and the private sector, terrorism, and medical care for mass gatherings. D

EMS 3335 Emergency Medical Services Administration: 3 semester hours.

An overview of the management of emergency medical services including organization, budget determination, purchasing, and communication. Emphasis on directing and delegation of decision making including managing stress. Equivalent to FSA 3335. D

EMS 3398 Special Topics: 1-3 semester hours.

Addresses the special needs of the industry, enabling students to upgrade technical skills that are not included in the current program curriculum. Examines and analyzes selected topics in Community Paramedics. PREREQ: Paramedic License or Certification. D

EMS 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

EMS 4409 Emergency Medical Services Internship: 3 semester hours.

In this course, students complete supervised experience divided into two or more of the following EMS concentrations: operations management, systems implementation, regulation, legislation, and product research and development. PREREQ: Permission of the instructor. D

EMS 4498 Special Topics: 1-3 semester hours.

Addresses the special needs of the industry, enabling students to upgrade technical skills that are not included in the current program curriculum. Examines and analyzes selected topics in Community Paramedics. PREREQ: Paramedic License or Certification. D

EMS 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Energy Sys Engr Tech (ESET)

Courses

ESET 0100 Engineering Technology Orientation: 1 semester hour.

An introduction to the opportunities and responsibilities of an engineering technician. Exposure to the various fields of technology through field trips, movies and guest lectures. Introduction to materials, techniques, and college services, which will assist the student in completing a technology program. F, S, D

ESET 0100L Engineering Technology Orientation Lab: 1 semester hour.

A laboratory introduction to the skills of an engineering technician. Includes an overview of safety, tools, electrical wiring, instrumentation and programmable logic controllers. F, S, D

ESET 0101 Electrical Circuits I: 5 semester hours.

Includes measurements and calculation of current, voltage, resistance and power in series, parallel and combination circuits with DC and AC power sources. Voltage and current in resistive-capacitive (R-C) and resistive-inductive (R-L) circuits during switch transitions, AC power circuits including reactance and transformation. Voltage and current in non-resonant and resonant AC circuits and filters. COREQ: ESET 0101L. F, S, D

ESET 0101L Electrical Circuits I Laboratory: 5 semester hours.

Electrical circuits are analyzed, designed and constructed using various DC and AC theories and electrical quantities are measured using appropriate test equipment. COREQ: ESET 0101. F, S, D

ESET 0102 Electrical Circuits II: 5 semester hours.

Continuation of electrical circuit study introducing the fundamentals of semiconductors, amplifier theory, digital logic and logical devices. COREQ: ESET 0102L. F, S, D

ESET 0102L Electrical Circuits II Laboratory: 5 semester hours.

Laboratory applications and experiments in troubleshooting of semiconductor devices and circuits, digital logic and logic device application. COREQ: ESET 0102. F, S, D

ESET 0103 Introduction to Electronics Theory: 1 semester hour.

Fundamentals of DC electronics - soldering, DC analysis, electrical units, Ohm's Law, series and parallel resistive circuits, and related algebraic principles. D

ESET 0103L Introduction to Electronics Lab: 1 semester hour.

Experiments in DC electronic circuits covered in ESET 0103, using electronic components, equipment, and tools. D

ESET 0104 DC Electronics Principles Theory: 2 semester hours.

Fundamentals of DC electronics - voltage and current, meters, network theorems, and related algebraic principles. D

ESET 0104L DC Electronics Principles Lab: 2 semester hours.

Experiments in DC electronic circuits analyzing voltage and current, meters, and network theorems. D

ESET 0105 AC Electronics Principles Theory: 4 semester hours.

Electronics AC fundamentals - magnetism, inductors, capacitors, AC-DC network analysis, and related algebraic principles. D

ESET 0105L AC Electronics Principles Lab: 2 semester hours.

Experiments in basic AC electronic circuits topics covered in ESET 0105, using electronic components, equipment, and tools to analyze current and voltage. D

ESET 0106 Electronic Principles Capstone: 2-8 semester hours.

Fundamentals of DC and AC electronics: safety, soldering, electrical units, Ohm's Law, series and parallel resistive circuits, voltage and current, meters, network theorems, magnetism, inductors, capacitors, and AC-DC network analysis. D

ESET 0107 Principles of Control Devices Theory: 3 semester hours.

Comprehensive study of semiconductors, power supplies, transistor amplifiers, operational amplifiers, and related algebraic principles. COREQ: ESET 0107L. PRE-or-COREQ: ESET 0106. D

ESET 0107L Principles of Control Devices Lab: 3 semester hours.

Experiments involving semiconductors, power supplies, transistor amplifiers, and operational amplifiers. COREQ: ESET 0107. PREREQ: ESET 0106. D

ESET 0108 Principles of Digital Devices: 2 semester hours.

Digital fundamentals including logic gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits, and related algebraic principles. COREQ: ESET 0108L. PREREQ: ESET 0106. D

ESET 0108L Principles of Digital Devices Lab: 2 semester hours.

Experiments involving digital fundamentals including logic gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits. COREQ: ESET 0108. PREREQ: ESET 0106. D

ESET 0110 Introduction to Process Control: 1 semester hour.

An introduction to the basic concepts of process control through the study of control devices, process variables, programmable logic controllers, instrument calibration, motor control, test equipment, and diagrams. PREREQ: ESET 0100. COREQ: ESET 0110L. F, S, D

ESET 0110L Introduction to Process Control Laboratory: 1 semester hour.

A laboratory introduction to the application and use of control devices, programmable logic controllers, and test equipment. Experiments with motor control, instrument calibration, and process control. PREREQ: ESET 0100L. COREQ: ESET 0110. F, S, D

ESET 0111 Principles of AC Circuit Analysis: 3 semester hours.

A/C circuit analysis and related mathematics, including phasor circuit analysis. PREREQ: MATH 1143. F, S, D

ESET 0112 Introduction to Digital Logic: 2 semester hours.

Digital fundamentals including logic gates, Boolean algebra, combinational logic circuits. Binary and hexadecimal number systems. COREQ: ESET 0112L. F, S, D

ESET 0112L Introduction to Digital Logic Laboratory: 1 semester hour.

Experiments involving digital fundamentals including logic gates, Boolean algebra, combinational logic circuits. COREQ: ESET 0112. F, S, D

ESET 0120 Introduction to Energy Systems: 2 semester hours.

Introduction to energy terminology, functions of power generation and mechanical processes, equipment, material, power cycles, mechanical physics and systems, and principles of heat transfer and fluid flow are covered. COREQ: ESET 0120L. F, S, D

ESET 0120L Introduction to Energy Systems Laboratory: 1 semester hour.

Laboratory exercises in the maintenance and function of selected plant equipment, mechanical perspective of primary process equipment, and their sub-components are covered. COREQ: ESET 0120. F, S, D

ESET 0121 Basic Electricity and Electronics: 4 semester hours.

Fundamental principles of electricity, Ohm's law, Kirchhoff's laws, and circuit analysis applied to DC and AC circuits. COREQ: ESET 0121L. F, D

ESET 0121L Basic Electricity and Electronics Laboratory: 3 semester hours.

Basic principles of electrical measurement and testing of DC and AC circuits. COREQ: ESET 0121. F, D

ESET 0122 Electrical Systems and Motor Control Theory: 3 semester hours.

Introduction to electrical system distribution and basic motor control including two- and three-wire control using a variety of devices and motor magnetic controllers. Control relays, time relays, solenoid valves, latching relays, and motor control centers. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0122L. S, D

ESET 0122L Electrical Systems and Motor Control Theory Laboratory: 1 semester hour.

Applications of electrical systems and motor controls. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0122. S, D

ESET 0123 Mechanical Power Transmission: 2 semester hours.

This course covers mechanical drives including chain-drives, belts, gears, and coupled shafts. Proper application and use of bearings, statics, hoists and fasteners are discussed. PREREQ: Permission of instructor. COREQ: ESET 0123L. S, D

ESET 0123L Mechanical Power Transmission Laboratory: 1 semester hour.

This course covers the application of mechanical drives including chain-drives, belts, gears, and coupled shafts. Proper application and use of bearings, statics, hoists and fasteners are discussed. Students will develop machine documentation and mechanical millwright skills. PREREQ: Permission of instructor. COREQ: ESET 0123. S, D

ESET 0124 Mechanical Systems and Machine Design: 2 semester hours.

Design considerations for machine elements used in mechanisms and machines, including advanced strength of materials; material selection; shaft design; selection of gear, chain, and belt drives; design and selection of bearings; design of brakes and clutches; and characteristics and selection of electric motors. D

ESET 0125 Introduction to Structural Welding: 1 semester hour.

An introduction to structural welding with an emphasis on carbon steel. Hands-on practice with cutting and joining through the use of hand-held torches and welders. F, D

ESET 0126 Introduction to Mechanical Drafting and Computer Aided Design: 1 semester hour.

An introduction to mechanical drafting and computer aided design. Course focuses on basic drafting skills and commonly used computer aided design software. This is a laboratory/lecture course. S, D

ESET 0127 Mechanical Power Transmission II: 2 semester hours.

Introduction to the following: machine dynamics, torque, kinematics, and vibration; stress, strain, and failures; lubrication and seals; and machine installation. PREREQ: ESET 0121, ESET 0121L, ESET 0123, ESET 0123L, ESET 0140 or permission of instructor. COREQ: ESET 0127L. S, D.

ESET 0127L Mechanical Power Transmission Laboratory II: 2 semester hours.

Application and testing of machine dynamics, kinematics and lubrication. Project design, management and teamwork is covered. PREREQ: ESET 0121 and ESET 0121L, or permission of instructor. COREQ: ESET 0127. S, D.

ESET 0140 Applied Technical Intermediate Algebra: 5 semester hours.

Topics in algebra, with an emphasis on solving equations and inequalities. Systems of linear equations; quadratic equations and the quadratic formula; polynomial, absolute value, rational, and radical equations and inequalities. Radical and rational exponents. Parabolas, distance formula and circles. All topics will be applied and taught for use in technical applications. PREREQ: C- in MATH 0025, a Math ACT score of 18 or higher, an SAT score of 460 or higher, an ALEKS score of 30 or higher, or 35 on the Algebra section (MAPL 2). F, D

ESET 0141 Applied Mathematics I: 4 semester hours.

Basic math as it applies to Electrical Theory; includes algebraic and trigonometric topics as they relate to DC and AC (sine wave) circuit analysis. COREQ: ESET 0101 or ESET 0121. F, S, D

ESET 0142 Applied Mathematics II: 4 semester hours.

Continuation of ESET 0141. Selected algebraic and trigonometric topics as related to DC and AC (sine wave) circuit analysis with special emphasis on trigonometric solution and vector analysis. COREQ: ESET 0102 or ESET 0127. F, S, D

ESET 0150 Introduction to Wind Energy Systems: 2 semester hours.

Investigate how wind power works, and its reliability, economics, and environmental implications. Discussion includes turbine types, their development, and their current status. The operating experiences and economic status of the industry will be evaluated. Students will be expected to carry out research and present reports on selected turbines. COREQ: ESET 0150L. F, D

ESET 0150L Introduction to Wind Energy Systems Laboratory: 1 semester hour.

Wind energy applications and basic operating principles. Laboratory exercises in maintenance and function of selected wind power systems and process. COREQ: ESET 0150. F, D

ESET 0151 Nuclear Industry Fundamental Concepts: 3 semester hours.

Introduces fundamental concepts used throughout the nuclear industry as an integral part of daily operations. Topics include fundamentals of Conduct of Operations (ConOps), Human Performance Enhancement (HPE), Task Performance Evaluation (TPE), Foreign Material Exclusion (FME), Criticality Safety, General Employee Radiation Training (GERT) and selected safety topics. COREQ: ESET 0151L. F, D

ESET 0151L Nuclear Industry Fundamental Concepts Lab: 1 semester hour.

Laboratory applications to include fundamental operating principles of Pressurized Water Reactors (PWR), Boiling Water Reactors (BWR) and other reactor types, their main and support systems, and the nuclear fuel cycle. COREQ: ESET 0151. F, D.

ESET 0152 Nuclear Careers and Information: 1 semester hour.

Focuses on student preparation for internship and job placement in the nuclear workforce. Topics include: job search, job titles and their descriptions, application, resume, cover letter, interview preparation, networking, and maintaining a portfolio. The course covers major changes and improvements taking place in the nuclear industry. F, S.

ESET 0153 Radiological Control Fundamentals: 3 semester hours.

Focuses on radiological control fundamentals necessary to be a radiological worker in the nuclear industry; including radiation effects, limits, monitoring programs, radiological control area access controls and postings, radiological emergencies and contamination control. Lab focuses on donning and doffing protective clothing, use of radiation and contamination detection instruments, performing exit surveys and demonstrating emergency actions. Lecture and Lab course. PREREQ: ESET 0151, ESET 0151L. S, D

ESET 0160 Introduction to Renewable Energy: 4 semester hours.

An exploration of the technologies of renewable energy, emphasizing physical principles and practical applications of wind, solar, and biomass forms of energy production. COREQ: ESET 0160L. S, D

ESET 0160L Introduction to Renewable Energy Lab: 2 semester hours.

Application of principles and practical applications of wind, solar, and biomass forms of energy production. COREQ: ESET 0160. S, D

ESET 0161 Applications of Physics and Earth Science: 3 semester hours.

Concepts and applications of physics and earth science addressing the function of mechanics, heat, wave motion, electricity, magnetism, light and the dynamic aspects of weather and climate from global to local scales with emphasis on how these affect energy production and use. F, D

ESET 0162 Industrial Health and Safety: 2 semester hours.

An overview of legislation, worker's compensation, hazard recognition, and safety planning. Includes basic engineering solutions. Addresses employee safety training requirements, recordkeeping, safety inspections, and program planning in the construction industry. Includes First Aid training and responder certification. F, D

ESET 0181 Information Technology Fundamentals: 3 semester hours.

Establishes fundamental understanding of information technologies for industrial control systems professionals. Topics include: operating systems, databases, programming, and virtualization. Lecture/Lab. PREREQ: Instructor approval. F, D

ESET 0199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ESET 0200 Applications of Electronic Electrical and Power Systems Control Fundamentals and Safety: 6 semester hours.

Overview and application of electronic sensors, thyristor power control circuits, and networks. Electrical motor control, relays, timers, PLCs, and computer software used to design and verify motor control circuits. Basic process control print reading and device calibration methods. Includes troubleshooting techniques and safety practices. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. Su, D

ESET 0201 Electronics for Instrumentation and Control: 2 semester hours.

Electronic theory and laboratory addressing the components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors, and networks. Laboratory based learning experiences strengthen principles. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. Su, D

ESET 0202 Introduction to Fiber and Electro Optics: 2 semester hours.

Fundamental physics of fiber/electro-optics, electro-optical spectrum, EO detectors, and arrays, IR sources, IR optical systems, light transmission/propagation, nonlinear optics, laser bandwidth, power supplies, optical fibers, fiber installation, testing, and maintenance. Lecture/Laboratory. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. Su, D

ESET 0203 Fundamentals of Electrical Generation: 2 semester hours.

Introduction to generator and prime mover principles covering major sources of utility generation. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0204 Process Control Devices: 2 semester hours.

Electronic control device theory and laboratory including sensors, device communication, controller fundamentals, control loops and loop tuning, device and system calibration and diagnostics, heat transfer, fluid flow, and refrigeration control. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. Su, D

ESET 0205 Fundamentals of Control Logic: 2 semester hours.

Introduction to control logic, relay logic principles, electronics in logic, logic and control drawings, fundamentals of programmable logic controllers (PLCs), and electrical automation concepts. Lecture/Laboratory. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. Su, D

ESET 0206 Health and Safety in Power Generation: 1 semester hour.

Regulatory and practical considerations of occupational health and safety associated with working with power generation systems. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. Su, D

ESET 0210 Principles of Power Generating Systems: 2 semester hours.

Transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis on circuit performance addressing voltage regulation, power factor, and protection devices. Lecture/Laboratory. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0211 Sensors and Control Devices: 2 semester hours.

Theory and application of control devices, sensors, timers, relays. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0212 Electrical Systems Documentation and Standards: 1 semester hour.

Introduction to print reading, technical specifications, print annotation, report writing, and electrical codes. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0213 Motors Generators and Industrial Electrical Systems: 2 semester hours.

The construction, design aspects and theory of operation of DC, single and poly-phase motors, variable frequency motor control, electrical switch-boards and electrical distribution systems. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0214 Motor Control Laboratory: 1 semester hour.

Applications of AC and DC motor control theory and motor protection systems. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0215 Contoller Laboratory: 1 semester hour.

Applications of Programmable Logic Controls and DCS including I-O configuration, Ladder logic design and function block use. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0216 Sensors and Control Device Laboratory: 1 semester hour.

Laboratory applications of sensors (including photoelectric and proximity types), relay and timer circuits, and application of automation devices. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0217 Motor Generator and Electrical Systems Laboratory: 2 semester hours.

Installation, setup, control, maintenance, and troubleshooting of AC and DC motors, electrical device installations and industrial safety and proper tool usage. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0218 Discrete Control Systems: 2 semester hours.

Discrete control concepts of power system operation including motor operated valve control, turbine sequencing and electrical system protection. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0220 Thermal Cycles and Heat Transfer: 2 semester hours.

Introduction to the Rankin, Carnot, and Brayton cycles. Includes principles of heat transfer and fluid flow and thermodynamic principles. PREREQ: ESET 0102 or ESET 0122 or permission of instructor. F, D.

ESET 0221 Boiler Reactor and Turbine Principles: 2 semester hours.

Survey of various boiler types and principles of combustion, overview of reactor principles and steam generation, turbine types and principles of operation. PREREQ: ESET 0102 or ESET 0122 or permission of instructor. S, D.

ESET 0222 Process Control Theory: 3 semester hours.

Electronic instruments-sensors, indicators, transmitters, computing relays, electro-optics, electronic controllers, ratio control, cascade control, recorders, analytical equipment, troubleshooting. COREQ: ESET 0226. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0223 Digital Control Theory: 2 semester hours.

Digital systems, digital control, analog-to-digital and digital-to-analog interfacing, signal conditioning, programmable controllers, computer application. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, S, D

ESET 0224 Measurement Theory: 2 semester hours.

Calibration calculations, pressure scales, level considerations, specific gravity, elevation suppression, closed and open systems, temperature scales, thermocouple and RTD values, bulb and capillary devices, heat transfer, flow with square root linearization, gas flow measurement calculations, mass flow, humidity measurements, PH measurements. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0225 Instrument Calibration Laboratory: 1 semester hour.

Use of test equipment, power supplies, current and volt measurements, use of oscilloscope, capacitor checker, decade box, Wheatstone bridge, transmitter simulator, manometers, pressure calibration devices. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0226 Process Control Devices Laboratory: 1 semester hour.

Set up, maintenance and troubleshooting of electronic sensors, indicators, transmitters, relays recorders, and controllers, transmission with twisted pair, fiber optics, smart systems, and analytical equipment. COREQ: ESET 0222. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0227 Digital Control Systems Laboratory: 1 semester hour.

Computer and programmable controller interfacing with transmitters and final elements, PID loops, auto tuning, set up to complete control loops, computer graphics. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, S, D

ESET 0228 Measurements Laboratory: 1 semester hour.

Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0230 Communication Circuits: 2 semester hours.

Communication and various types of data and information transfer circuits. Analysis of the various types of communication available and their principles of operation. COREQ: ESET 0230L. F, D

ESET 0230L Communications Circuits Laboratory: 1 semester hour.

Laboratory applications and explorations of various communication circuit types. Includes installation and maintenance considerations of the various types of communication available. COREQ: ESET 0230. F, D

ESET 0231 Microcontrollers: 2 semester hours.

Principles of motor controls, microcontroller and programmable logic controller (PLC) programming including I/O devices and integration of process control principles. COREQ: ESET 0231L. F, D

ESET 0231L Microcontrollers Laboratory: 1 semester hour.

Applications of motor controls, microcontroller and programmable logic controller (PLC) programming, including I/O device connections and interface to final elements of process control systems. COREQ: ESET 0231. F, D

ESET 0232 Electrical Machines: 3 semester hours.

Energy storage, transfer, and conversion, force and emf production, coupled circuit analysis of systems with both electrical and mechanical inputs. Applications to electric motors and generators and other electromechanical transducers. COREQ: ESET 0232L. F, D

ESET 0232L Electrical Machines Laboratory: 3 semester hours.

Laboratory applications of electrical machines including testing, evaluation and industry best practices for installation and troubleshooting. COREQ: ESET 0232. F, D

ESET 0233 Electrical Power Systems: 3 semester hours.

The electric power industry, operation of power systems, load flow, fault calculations, economic dispatch and general technical problems of electric power networks. COREQ: ESET 0233L. S, D

ESET 0233L Electrical Power Systems Laboratory: 3 semester hours.

Applications and laboratory studies of power network principles, equipment application and device evaluation. COREQ: ESET 0233. S, D

ESET 0235 Power Electronic Circuits: 2 semester hours.

Electronic theory addressing power electronic components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. COREQ: ESET 0235L. S, D

ESET 0235L Power Electronic Circuits Laboratory: 1 semester hour.

Electronic laboratory addressing the components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. COREQ: ESET 0235. S, D

ESET 0239 Pumps, Valves, and Fluid Flow: 5 semester hours.

Introductory fluid concepts that pertain to pumps, valves, and piping. Includes the operation and maintenance of various industrial pump and valve types. Emphasis is placed on maintenance and repairs of centrifugal pumps and control valves. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0239L. F, D

ESET 0239L Pumps, Valves, and Fluid Flow Laboratory: 4 semester hours.

Applications in the installation, testing, and maintenance of various pump and valve types. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0239. F, D

ESET 0240 Pumps: 3 semester hours.

Introductory fluid concepts that pertain to centrifugal pumps, including pump seals, packing techniques, and bearings are covered. Includes the operation and maintenance of various industrial pump types. Emphasis is placed on centrifugal pump maintenance and repair. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0240L. F, D

ESET 0240L Pump Applications Laboratory: 3 semester hours.

Applications in the installation, testing, and maintenance of various pump types. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0240. F, D

ESET 0241 Valves and Piping: 2 semester hours.

Introduction to basic construction, components, materials, and function of piping and valves common to power generation, industrial, and commercial systems, including valve process control. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0241L. F, D

ESET 0241L Valves and Piping Applications Lab: 2 semester hours.

Applications of valve and piping installation, layout, and maintenance including valve disassembly, reassembly, maintenance, and quality control practices. Valve control system maintenance and operation are covered. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0241. F, D

ESET 0242 Practical Process Measurements and Control: 2 semester hours.

Principles of temperature, pressure, strain, flow, force, and vibration measurements are covered. Techniques of computerized data acquisition, reduction, and statistical precision and tolerance are reviewed. Signal for local indications and process control operation are also covered. Lecture plus laboratory work in selected topics. PREREQ: ESET 0122 or permission of instructor. F, D.

ESET 0243 Hydraulic and Pneumatic Power: 2 semester hours.

Hydraulic and pneumatic power mechanics covering high pressure fluids and the associated power and control systems with symbology, circuit operation, and terminology are covered. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0243L. F, D

ESET 0243L Hydraulic and Pneumatic Power Laboratory: 2 semester hours.

Applications of hydraulic and pneumatic power mechanics with hands-on experience are covered. PREREQ: ESET 0127 and ESET 0127L or permission of instructor. COREQ: ESET 0243. F, D

ESET 0244 Rotating Equipment and Millwright Maintenance: 4 semester hours.

Installation and predictive maintenance techniques that include installations, operation, vibration analysis, lubrication, trend analysis, and troubleshooting techniques are covered. Machine, shaft, and gear alignment practices and methods are discussed. COREQ: ESET 0244L. PREREQ: ESET 0127 or permission of instructor. S, D

ESET 0244L Rotating Equipment and Millwright Maintenance Laboratory: 3 semester hours.

Applications and use of tools and equipment used in the reliability maintenance process. Includes the use of precision maintenance and alignment tools, vibration data collection, oil analysis, and infrared testing. COREQ: ESET 0244. PREREQ: ESET 0127 or permission of instructor. S, D

ESET 0245 Fundamentals of Heat Exchangers: 2 semester hours.

Introduction to construction, operation, and maintenance of various heat exchangers. Includes flow patterns, temperature profiles, and analysis techniques to determine performance and efficiency. PREREQ: ESET 0140, MATH 1108, or permission of instructor. S, D

ESET 0246 Materials and Metallurgy: 2 semester hours.

Lecture, demonstration, and laboratory emphasizing the practical approach to basic principles of materials and metallurgical science, including behavior of materials under various conditions. S, D

ESET 0247 Wind Energy Control Systems: 2 semester hours.

Measurement and control of mechanical and electrical systems, techniques of computerized data acquisition and reduction, electrical interconnection issues, technical challenges, safety issues, and metering associated with renewable resource generation. Discussion of operation, dispatch, and control of wind systems their management and planning. PREREQ: ESET 0231 and ESET 0231L or permission of instructor. COREQ: ESET 0247L. S, D

ESET 0247L Wind Energy Control Systems Laboratory: 1 semester hour.

Applications measurement and control of mechanical and electrical systems used in wind energy. PREREQ: ESET 0231 and ESET 0231L or permission of instructor. COREQ: ESET 0247. S, D

ESET 0248 Power Plant Drawings: 2 semester hours.

Covers the use of and relationship among typical drawings found at a nuclear power plant. Topics include using mechanical, electrical, and isometric drawings; the information contained in the lead sheet of a set of drawings; the use of notes and legends; standard symbology used in engineering drawings; and the use of various types of drawings together in order to perform work, locate components, or use for other typical applications. Lab portion includes creation, application and verification of drawings for LO/TO and work documentation. Lecture/Lab Course. PREREQ: ESET 0151 and ESET 0151L or permission of instructor. F, D.

ESET 0249 Reactor Plant Materials: 3 semester hours.

Provides an understanding of the various materials used in the operation of a nuclear power plant. Topics include phase equilibria of materials, mechanical properties and behavior of materials, stress and strain, chemistry, corrosion, environmental effects on materials, nuclear specific topics include fuel pellets, fuel rod cladding, control rods, radiation effects on materials, enrichment of radioactive isotopes, and fuel pellet fabrication. PREREQ: ESET 0151 and ESET 0151L or permission of instructor. F, D.

ESET 0250 Radiation Detection and Protection: 2 semester hours.

The theory, application, detection, and shielding of the various types of radiation. Includes detection devices such as typical survey meters, core power detectors, and personnel monitoring devices. Discussion of how exposure to radiation can be minimized and the biological impact of radiation. PREREQ: ESET 0151, ESET 0151L, and ESET 0153 or permission of instructor. F, D.

ESET 0251 Reactor Theory Safety and Design: 4 semester hours.

Provides an understanding of the principles of reactor theory. Including the fission process; the neutron life cycle; the concepts of subcritical multiplication, criticality and reactivity; thermal limits and their importance to operation; the functions and construction of fission product barriers; the practical application of the concepts of defense in depth and redundancy; and the roles of the various employees in reactor safety. Lab portion will include startup, shutdown, and normal operation of flow loop using operating and abnormal procedures and ConOps Issues. Lecture/Lab Course. PREREQ: ESET 0248, ESET 0249, ESET 0252 and ESET 0279 or permission of instructor. COREQ: ESET 0250 or permission of instructor. S, D.

ESET 0252 Power Plant Components: 2 semester hours.

Introduces fundamental components and pieces of equipment that are used throughout electrical power generating facilities such as pumps, valves, heat exchangers, motors, and generators. Includes purpose, construction, theory of operation, and typical maintenance requirements of these devices. Lab portion will involve assembly and disassembly of selected components. Lecture/Lab Course. PREREQ: ESET 0151 and ESET 0151L or permission of instructor. COREQ: ESET 0248 or permission of instructor. S, D.

ESET 0253 Introduction to the Smart Electric Power Grid: 2 semester hours.

Overview of the technologies used in Smart Grid to enhance reliability, security, robustness and efficiency of transmission and distribution systems. The course addresses advanced metering infrastructure, home-area networks, micro-grids, real-time pricing, plug-in hybrid vehicles, demand response, and load curve shaping. Included is an in-depth look at the Smart Grid's benefits and potential impact on our energy consumption. COREQ: ESET 0254, ESET 0255, ESET 0256, ESET 0257, ESET 0258, ESET 0259. PREREQ: Smart Grid major or instructor approval. F

ESET 0254 Smart Grid Design and Integration: 2 semester hours.

Overview of Smart Grid design including combination of technology, utility, and consumer considerations. The rapid changes in communications and power infrastructure in the grid will be presented. Included are Smart Grid applications such as Demand Response, real-time pricing, Home Area Networks, Advanced Metering Systems, smart loads and appliances. COREQ: ESET 0253, ESET 0255, ESET 0256A, ESET 0257, ESET 0258, and ESET 0259. F

ESET 0255 Electric Power Transmission and Distribution Systems: 3 semester hours.

Essential information regarding the transmission and distribution of electric power, including components of transmission lines, transformers and switchgear, substations, and electric power distribution systems. Wide-ranging information related to electric service loads as well as operational aspects and costs involved in transmitting and distributing electric power. The potential trends of electric power transmission are also discussed. COREQ: ESET 0253, ESET 0254, ESET 0256A, ESET 0257, ESET 0258, and ESET 0259. F

ESET 0256A Renewable Electrical Energy and Grid Integration: 2 semester hours.

Assesses existing renewable resources such as wind, solar, geothermal, hydro, tidal, wave power, and biomass and their integration into the electric power grid and various energy storage methods to accommodate the intermittent nature of these resources. Economic constraints, environmental benefits, and institutional regulations are considered. COREQ: ESET 0253, ESET 0254, ESET 0255, ESET 0257, ESET 0258, and ESET 0259. F

ESET 0257 Fundamentals of Modern Protective Relaying: 3 semester hours.

Provides a comprehensive understanding of the principles of digital power system relaying and protection applications. Examines the major components of a power system as well as basic theory and protection principles. COREQ: ESET 0253, ESET 0254, ESET 0255, ESET 0256A, ESET 0258, and ESET 0259. F

ESET 0258 Smart Grid Command and Control: 3 semester hours.

Smart Grid is built upon the concept of computerized command and control over a parallel data network to improve efficiency and reliability of electrical power distribution. This course builds understanding of the control network from the generation site to the end appliance in a residential home, including networking theory, efficacy of various radio technologies, protocols, and security issues. COREQ: ESET 0253, ESET 0254, ESET 0255, ESET 0256A, ESET 0257, and ESET 0259. F

ESET 0259 SCADA and Telemetry: 5 semester hours.

Explains the parts and technologies that make up a Supervisory Control and Data Acquisition (SCADA) system and provides tools used in applying the technology to Smart Grid. This course addresses the various components of a SCADA system including sensor and telemetry components, the background and history of component technologies, and the base standards that apply to SCADA installations. In this course students will design a SCADA system for potential application in Smart Grid, identify the limitations of SCADA systems and vulnerabilities of the design, determine the "scan time" required for SCADA systems of various sizes, and evaluate the Human Machine Interface requirements for the system. COREQ: ESET 0253, ESET 0254, ESET 0255, ESET 0256A, ESET 0257, and ESET 0258. F

ESET 0270 Foundations and Principles of Robotic Operation: 2 semester hours.

Mechanics of robotic manipulator/control systems, programming of robot actions, application and troubleshooting techniques of solid-state devices used in logic controlled systems. Principles of industrial measurement/control, robotics, machine language, and A-D/D-A conversion. D

ESET 0271 Radio Frequency and Telecommunications Systems I: 7 semester hours.

Addresses the specific needs of individuals for theoretical study of radio frequency/telecommunications circuits, RF wideband and narrow band amplifiers, electronic switching/programming and digital data communications systems that utilizes laboratory information from ESET 0272. RF/Telecommunications test equipment, radio frequency generation, reception, amplification, modulation, and radiation at appropriate intervals through the HF, VHF, UHF, and SHF radio frequency spectrum. D

ESET 0272 Radio Frequency and Telecommunications I Laboratory: 7 semester hours.

Practical application of radio frequency/telecommunications circuits, RF wideband and narrow band amplifiers, electronic switching/programming and digital data communications that utilizes theory studied in ESET 0271. RF/telecommunication test equipment, radio frequency generation, reception, amplification, modulation and radiation at appropriate intervals through the HF, VHF, UHF, and SHF radio frequency spectrum. D

ESET 0273 Radio Frequency and Telecommunications Systems II: 6 semester hours.

Theoretical application of radio frequency/telecommunications circuits, electronic switching/programming and digital data communications utilizing laboratory/experiments developed in ESET 0274. RF/telecommunication test equipment, mobile telephone, carrier fundamentals, repeater systems, fiber optic principles, microwave, antennas and transmission line system concepts are emphasized. D

ESET 0274 Radio Frequency and Telecommunications Laboratory II: 3 semester hours.

Practical application of radio frequency/telecommunications utilizing ESET 0273, Radio Frequency/Telecommunications Systems II. RF/Telecommunication test equipment, mobile telephone carrier fundamentals, repeater systems, fiber optic principles, microwave, antennas, and transmission line systems concepts are emphasized. D

ESET 0275 Radio Frequency and Telecommunications Laboratory III: 3 semester hours.

Continuation of ESET 0274. D

ESET 0276 Coop: 1-4 semester hours.

Students pursue on-the-job training in the electronic information systems industry which satisfies competencies in lieu of radio frequency/telecommunications lab.

A Coop agreement must be signed by all parties involved, i.e., student, instructor, and employer. D

ESET 0279 Conduct of Operations: 2 semester hours.

A study of Conduct of Operations, to include human performance and safety specific to the nuclear industry. Lecture and Lab course. PREREQ: ESET 0151, ESET 0151L or permission of instructor. S, D.

ESET 0280 Capstone and Case Studies in Nuclear Engineering Technology: 2 semester hours.

An examination of case studies from the nuclear power industry and from other industries. Discussion of precursors to poor decision making and how the proper use of human performance enhancement (HPE) and event free tools can minimize the risks of accidents. Lecture/Lab Course. PREREQ: ESET 0151, ESET 0151L, ESET 0153, ESET 0220, ESET 0242, ESET 0248, ESET 0249, and ESET 0252, and or permission of instructor. COREQ: ESET 0250, ESET 0251 or permission of instructor. S, D.

ESET 0281 Defending Critical Infrastructure and Cyber-Physical Systems: 3 semester hours.

Facilitates application of security concepts, skills, and tools to defend Cyber Physical systems commonly found in critical infrastructure. Identification, selection and use of appropriate defensive technologies. Lecture/Lab. PREREQ: ESET 0282A, ESET 0282B, ESET 0283, ESET 0284. S, D

ESET 0282 Wireless Network Security: 3 semester hours.

Overview of wireless networks with a focus on threats, discussion of proposed solutions and their limitations. Topics will include authentication, secure hand-offs, key management in wireless networks, attacks on MAC protocols, selfish and malicious behavior in wireless routing protocols, secure multicast. COREQ: ESET 0281, ESET 0283, ESET 0284, ESET 0285, and ESET 0286. PREREQ: Prior AAS in Energy System program or instructor approval. S, D

ESET 0282A Introduction to Network Security I: 1 semester hour.

Facilitates competence in networking fundamentals: OSI model, TCP/IP, ports and services. Students identify networking equipment and functions, perform packet capture and conduct basic traffic analysis. Lecture/Lab PREREQ: Prior AAS in Energy System program or instructor approval. F, D

ESET 0282B Introduction to Network Security II: 2 semester hours.

Continuation of ESET 0282A. Through a hands on instruction environment students will learn basic network security principles, common network security problems, and configurations to solve said problems. Lecture/Lab. PREREQ: ESET 0282A or instructor approval. F, D

ESET 0283 Information System Security Design: 3 semester hours.

Examination of the design methods and techniques for the development of safety and security critical information systems. Secure software design and implementation and information infrastructure maintenance and reliability are examined. An overview of the development of specification, design and analysis of mission-critical system attributes. PREREQ: Prior AAS in Energy System program or instructor approval. F, D

ESET 0284 Risk Management for Critical Data Systems: 3 semester hours.

Risk analysis and threat profiling for mission critical information systems. Adversarial analysis and countermeasure synthesis processes are studied. Policy development and implementation strategies and Incident handling and response procedures are discussed. Lecture/Lab Course. PREREQ: Prior AAS in an Energy System program or instructor approval. F, D

ESET 0285 Information System Reliability: 3 semester hours.

Design and analysis methods for high security control and data systems. System reliability and security requirements. Specification of mission-critical system properties. Software and hardware validation, verification, and certification. COREQ: ESET 0281, ESET 0282, ESET 0283, ESET 0284, and ESET 0286. PREREQ: Prior AAS in an Energy System program or instructor approval. S, D

ESET 0286 Critical Network Security: 3 semester hours.

Comprehensive review and analysis of current and developing control and data system networks. Host-based and network-based intrusion detection, anomaly and misuse detection. Network security appliances, including firewalls and access control devices. Procurement and installation of network, hardware and software systems for mission critical enterprises. Survey of wireless technologies and their security implications. Lecture/Lab. PREREQ: ESET 0282, or ESET 0282A, and ESET 0282B, or instructor approval. S, D

ESET 0287 Professional Certification: 3 semester hours.

Guided preparation for professional cybersecurity certification. PREREQ: ESET 0281, ESET 0282, ESET 0283. COREQ: ESET 0281. S, D

ESET 0289 Cyber Physical Systems Security Capstone: 3 semester hours.

Promotes professional development through participation in a professionally-oriented cybersecurity project, internship or employment. Surveys cybersecurity employment field, matching student aptitudes and interests with job types. Develops lifelong professional learning strategies. Fosters professional communication proficiency. May be repeated once. F, S

ESET 0290 Energy Systems Theory I: 8 semester hours.

Theory in application of energy systems control devices, sensors, timers, relays, programmable controllers, electrical code, print reading, single phase, split phase, three phase and variable frequency motor control, and interfacing with devices used in automated electrical power generation facilities. COREQ: ESET 0290L. F, D

ESET 0290L Energy Systems Laboratory I: 5 semester hours.

Experiments in motor control circuits, relay and ladder logic circuits, computer interfacing with programmable controllers, transformers, timers, sensors, variable frequency controllers, thyristor circuits, troubleshooting electrical devices, and adapting relay logic circuits to programmable controllers. COREQ: ESET 0290. F, D

ESET 0291 Energy Systems Theory II: 8 semester hours.

Theory in the application of Energy Systems control devices that measure and control pressure, temperature, level, flow, humidity, PH, viscosity, velocity, volume, density, conductivity and composition; instruction in calibration and test procedures used to install, maintain, and troubleshoot components common to industrial facilities. COREQ: ESET 0291L. S, D

ESET 0291L Energy Systems Laboratory II: 4 semester hours.

Application of Energy Systems control devices including: calibration of transmitters, recorders, indicators, and controllers. Interfacing pneumatic, electrical, electronic, hydraulic, programmable controllers, and computer devices. PID control loop tuning, installation and troubleshooting of working systems. COREQ: ESET 0291. S, D

ESET 0292 Electrical Engineering Technology I: 7 semester hours.

Theory involving communication and various data and information transfer circuits, principles of motor controls, microcontroller and programmable logic controller (PLC) programming, and electrical machines including energy storage, transfer, and conversion applicable to electric motors, generators, and other electromechanical transducers. COREQ: ESET 0292L. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0292L Electrical Engineering Technology I Laboratory: 5 semester hours.

Lab involving communication and various data and information transfer circuits, principles of motor control, microcontroller and programmable logic controllers (PLC) programming, and electrical machines including energy storage, transfer, and conversion applicable to electric motors, generators, and other electromechanical transducers. COREQ: ESET 0292. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. F, D

ESET 0293 Electrical Engineering Technology II: 5 semester hours.

Electrical power industry theory addressing generation, operations and distribution of power systems including electronic components, functions, and configurations of power, amplifiers, oscillators, thyristors, power control and regulation circuits, sensors, and networks. COREQ: ESET 0293L. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0293L Electrical Engineering Technology II Laboratory: 4 semester hours.

Electric power generation lab, electric power distribution lab, and electric power industry lab/industry lab addressing operations of power systems including electronic components, functions, and configurations of power, amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. COREQ: ESET 0293. PREREQ: ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, or permission of instructor. S, D

ESET 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. F, S, D

ESET 0297 Internship: 1-8 semester hours.

On-the-job placement providing work experience for persons pursuing careers in electronics technology. PREREQ: Permission of instructor. D

ESET 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. F, S, D

English (ENGL)

Courses

ENGL 0090 Basic Writing: 3 semester hours.

For students not meeting ENGL 1101 placement requirements. Prepares students for ENGL 1101 by addressing fundamentals at sentence, paragraph, and essay levels, with emphasis on student's own writing. Graded S/U. F, S, Su

ENGL 1100 Introduction to Academic Writing and Speaking for Non-Native Speakers of English: 3 semester hours.

Explores culture-based academic expectations and conventions in communication. Graded S/U. PREREQ: ISU Admission; 500+ TOEFL or permission. F, S

ENGL 1101 Writing and Rhetoric I: 3 semester hours.

Course in which students read, analyze and write expository essays for a variety of purposes consistent with expectations for college-level writing in standard edited English. Partially satisfies Objective 1 of the General Education Requirements. Equivalent to ENGL 1101P. F, S, Su

ENGL 1101P Writing and Rhetoric I Plus: 4 semester hours.

Variation of ENGL 1101 in which students not placing into ENGL 1101 receive intensive supplemental instruction in reading, analyzing, and writing expository essays. Partially satisfies Objective 1 of the General Education Requirements. Equivalent to ENGL 1101. PREREQ: ACT below 18 or SAT 440 or lower or completion of ENGL 0090 with an S. International Students should consult the Chair, Department of English and Philosophy, concerning placement. F, S

ENGL 1102 Writing and Rhetoric II: 3 semester hours.

Writing essays based on readings. Focus on critical reading; research methods; gathering, evaluating, analyzing, and synthesizing ideas and evidence; documentation. Partially satisfies Objective 1 of the General Education Requirements. PREREQ: ENGL 1101 with a C- or better or ENGL 1101P with a C- or better or equivalent. F, S, Su

ENGL 1107 Nature of Language: 3 semester hours.

General survey of structure and use of language. Topics include language origins, descriptive and historical linguistics, language and culture, and history of the English language. Equivalent to ANTH 1107 and LANG 1107. Satisfies Objective 7 of the General Education Requirements. S

ENGL 1115 Major Themes in Literature: 3 semester hours.

Introduction to literature through the study of one or more major themes that cross historical and cultural boundaries. May be repeated for up to 6 credits with different content. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

ENGL 1122 Academic Writing for Non-Native Speakers of English, Part I: 3 semester hours.

Focuses on basic writing tasks. These include summary and response as well as vocabulary and grammar development. Explores culture-based academic expectations and conventions in communications. Equivalent to ENGL 1100. PRE-or-COREQ: ACAD 1104. F, S

ENGL 1123 Academic Writing for Non-Native Speakers of English, Part II: 3 semester hours.

Continuation of the goals of ENGL 1122 and preparation for the demands of ENGL 1101. Introduction to the writing process (prewriting, drafting, revising, editing) and concepts such as audience, purpose, and thesis. Continued emphasis on development of grammar and vocabulary. PREREQ: ENGL 1122 or placement into ENGL 1123. PRE-or-COREQ: ACAD 1104. F, S

ENGL 1126 Art of Film I: 3 semester hours.

Course examines the creative process, aesthetic principles and historical background of cinematic arts. Screening of representative films and examination of critical works and theories are included. Partially satisfies Objective 4 of the General Education Requirements. R2

ENGL 1175 Literature and Ideas: 3 semester hours.

Introduction to the critical reading of various literary genres, with attention to the interpretation and evaluation of representative texts. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

ENGL 2206 Creative Writing Workshop: 3 semester hours.

Introduction to one or more forms of creative writing. R1

ENGL 2210 American Cultural Studies: 3 semester hours.

Themes, symbols, and expressions within American cultures. Interdisciplinary cultural studies approach focuses on interactions among diverse groups and expressive modes such as folklore, elite art, and popular entertainment. Satisfies Objective 9 of the General Education Requirements. R1

ENGL 2211 Introduction to Literary Analysis: 3 semester hours.

Reading of poems, novels, short stories, and plays, exploring a number of critical approaches to each. Emphasis on close reading of short passages, historical contexts of literature, ways genre affects reading practices, and criteria for persuasive interpretations. Includes orientation to finding and evaluating secondary criticism. Students practice analytical skills in a number of short papers. It is recommended that students take ENGL 2211 before taking any 3000- or 4000-level courses. PREREQ: ENGL 1102 or equivalent. F, S

ENGL 2212 Introduction to Folklore and Oral Tradition: 3 semester hours.

Folklore genres and folk groups, including introductory experience in folklore fieldwork focused on study of a genre or group of genres within verbal, customary, or material culture. Equivalent to ANTH 2212. Satisfies Objective 9 of the General Education Requirements. R1

ENGL 2257 Survey of World Literature I Beginnings through 16th Century: 3 semester hours.

Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. Partially satisfies Objective 4 of the General Education Requirements. R1

ENGL 2258 Survey of World Literature II 17th Century to Present: 3 semester hours.

Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. Partially satisfies Objective 4 of the General Education Requirements. R1

ENGL 2267 Survey of British Literature I Beginnings through 18th Century: 3 semester hours.

Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. R1

ENGL 2268 Survey of British Literature II 19th Century to Present: 3 semester hours.

Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. R1

ENGL 2277 Survey of American Literature I Beginnings to 1860: 3 semester hours.

Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2278 Survey of American Literature II 1860 to Present: 3 semester hours.

Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2280 Grammar and Usage: 3 semester hours.

Introduction to the grammar of standard written English. The course is designed to give students an improved knowledge of grammar in order to improve usage and writing skills at both the sentence and paragraph level. S

ENGL 2281 Introduction to Language Studies: 3 semester hours.

Introduction to basic concepts and models for the study of English phonology, morphology, syntax, and lexis. F, S

ENGL 3305 Art of the Film II: 3 semester hours.

In-depth investigation of cinematic art with focus on one or more of the following: genre, historical development, aesthetics, criticism, social impact, and artists. Screening of representative films. May be repeated for up to 6 credits with different content. PREREQ: ENGL 1126 or permission. D

ENGL 3306 Intermediate Creative Writing Workshop: 3 semester hours.

Advanced training in one or more of the forms of creative writing. PREREQ: ENGL 2206 or equivalent. R1

ENGL 3307 Professional and Technical Writing: 3 semester hours.

An intensive course covering skills and conventions pertinent to writing in the professions, including technical writing. Applications in disciplines or subjects of interest to the individual student. Especially appropriate for science, engineering, and pre-professional majors. PREREQ: 45 credits and ENGL 1102. F, S

ENGL 3308 Business Communications: 3 semester hours.

An advanced course in conventions of business communications, emphasizing purpose and audience. Focus on style, semantics, research skills, format, persuasion, and critical analysis and synthesis of data. PREREQ: 60 credits and ENGL 1102. F, S, Su

ENGL 3311 Literary Criticism and Theory: 3 semester hours.

Provides an introduction to theoretical approaches to literature with study of at least 4 or 5 major critical movements. Prepares students for future literature classes and fosters critical thinking, reading, and writing skills. Students will practice applying theoretical/critical approaches by writing multiple short papers and/or an in-depth research paper. It is strongly recommended that all English and English Ed majors take ENGL 3311 before taking any other 3000- or 4000-level literature courses. PREREQ: 60 credits including ENGL 2211. F, S

ENGL 3321 Genre Studies in Drama: 3 semester hours.

Comparative study of selected plays through recognition of generic forms and conventions, their origins and continuing evolution, and their theoretical basis. R2

ENGL 3322 Genre Studies in Poetry: 3 semester hours.

Comparative study of selected poems through recognition of generic forms and conventions, their origins and continuing evolution, and their theoretical basis. Emphasis on lyric poetry. R2

ENGL 3323 Genre Studies in Fiction: 3 semester hours.

Comparative studies of varying forms and conventions in selected prose fiction, with attention to their origins, evolution, and theoretical basis. R2

ENGL 3324 Genre Studies in NonFiction: 3 semester hours.

Comparative study of varying forms and conventions in selected prose nonfiction, with attention to their origins, evolution, and theoretical basis. R2

ENGL 3327 Special Topics in Genre: 3 semester hours.

Focused study of a generic tradition modified by thematic or historical contexts, with emphasis on topics not regularly treated in ENGL 3321, ENGL 3322, ENGL 3323, and ENGL 3324. May be repeated for up to 6 credits with different content. D

ENGL 3328 Gender in Literature: 3 semester hours.

Considers the role of gender in literature, including issues of authorship, reader communities, and literary representations of women and men. R2

ENGL 3341 Bible as Literature: 3 semester hours.

Study of various types of literature found in the Bible, with a view of attaining greater knowledge of and appreciation for this aspect of the literacy heritage. R2

ENGL 3348 Independent Problems: 1-3 semester hours.

Consultation course for upperclassmen interested in problems in language and literature not adequately covered by regular offerings. May be repeated for up to 6 credits with different content. D

ENGL 3353 The West in American Literature: 3 semester hours.

Survey of the literature of Western America since 1800. D

ENGL 3356 Ethnicity in Literature: 3 semester hours.

Study of the construction of ethnicity in literature, with attention to specific concerns relevant to one or more ethnic groups. R2

ENGL 3367 Language in the United States: 3 semester hours.

A survey of the languages of the United States (American Indian languages, immigrant languages, and ethnic and regional varieties of English) along with the social and political aspects of American language use. Equivalent to ANTH 3367. PREREQ: ANTH/LANG/ENGL 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4401 Advanced Composition: 3 semester hours.

An advanced course in which students develop an independent style in writing such types of essays as the personal, biographical, argumentative, and critical. May contain prose analysis. PREREQ: Junior standing. R1

ENGL 4405 Creative Writing in the Schools: 3 semester hours.

Hybrid pedagogy seminar/creative writing workshop. After studying Writers-in-the-Schools curriculum and culturally relevant pedagogy, students will develop brief lesson plans and lead creative writing activities at local K-12 schools. Students will also analyze literary works that explore cultural identity and class issues as well as produce small creative portfolio related to these topics. PREREQ: ENGL 2206. R2

ENGL 4406 Advanced Creative Writing Workshop: 3 semester hours.

Production and discussion of student writing. Study in a specific genre. May be repeated for up to 6 undergraduate credits. PREREQ: ENGL 3306 or permission of instructor. R1

ENGL 4407 Topics in Professional Writing: 3 semester hours.

Topics in professional writing, including standard genres, new media, and emerging trends in research and the workplace. Emphasis on developing practical skills, theoretical knowledge, and finished professional documents related to the topic. May be repeated once with a different topic for a maximum total of 6 credits. PREREQ: Junior standing. R1

ENGL 4409 Literary Magazine Production: 3 semester hours.

Hands-on experience in literary magazine production; editing, proofreading, and design. Strategies for screening and selecting stories, poems, and reviews. Consideration of the role of the small press in national literary culture. PREREQ: ENGL 2206. S

ENGL 4410 Writing Internship: 1-6 semester hours.

On-the-job writing experience in business, industry, or government settings. May be repeated for up to 6 credits. Graded S/U. PREREQ: 90 credits and ENGL 3307, ENGL 3308, or ENGL 3311. F, S, Su

ENGL 4431 Teaching and Writing Projects Special Topics: 3 semester hours.

Aids teachers of all grade levels and all academic subjects in developing skills in teaching writing. Combines composition theory and practical classroom exercises with daily writing and critiques. D

ENGL 4433 Methods Teaching English: 3 semester hours.

Study of the objectives and methods of teaching literature and composition in secondary schools. Ideally taken semester before student teaching. PREREQ: General Education Objective 1, ENGL 2211, ENGL 2280 or ENGL 2281, and 3 additional hours of English. F

ENGL 4440 Philosophy and Literature: 3 semester hours.

Reflections on the relation between poetic and speculative discourse. Topics include forms of consciousness, temporality and narrative, metaphysics of genre. Equivalent to PHIL 4440. R2

ENGL 4441 History of Literary Criticism: 3 semester hours.

Teaches major theorists and debates that have influenced the interpretation of literature. Students read key theoretical texts. Course may use a thematic or chronological approach. D

ENGL 4453 American Indian Literature: 3 semester hours.

Considers literary works by and about North American native people, especially in relationship to history, genre, and culture, including oral traditions. Equivalent to ANTH 4453. PREREQ: Goal 1. R2

ENGL 4455 Studies in National Literatures: 3 semester hours.

Studies in important literatures and cultures not otherwise covered in the curriculum. May include literatures in translation and literature written in English outside of America and the British Isles. Equivalent to CMLT 4415. May be repeated for up to 6 credits with different content. R3

ENGL 4456 Comparative Literature: 3 semester hours.

The analysis of ideas, problems, and techniques common to important writers of various national literatures. R3

ENGL 4461 Studies in Classical Literature: 3 semester hours.

Study of the major literature of the classical Greek and Roman periods, especially in relationship to its cultural backgrounds. R3

ENGL 4462 Studies in Medieval Literature: 3 semester hours.

Study of the major literature of the Middle Ages and its background, with emphasis upon the development of English literature. R2

ENGL 4463 Studies in Renaissance Literature: 3 semester hours.

Study of the major literature of the Renaissance and its background, with emphasis upon the development of English literature. R2

ENGL 4464 Studies in Seventeenth Century Literature: 3 semester hours.

Study of the major literature of the seventeenth century and its background, with emphasis upon the development of English or American or other literature of the period. R2

ENGL 4465 Studies in Eighteenth Century Literature: 3 semester hours.

Study of the major literature of the eighteenth century and its background, with emphasis upon the development of English or American or other literature of the period. R2

ENGL 4466 Studies in Nineteenth Century Literature: 3 semester hours.

Study of the major literature of the early nineteenth century and its background, with emphasis upon the development of English, American or other literature of the period. R2

ENGL 4467 Studies in Late Nineteenth Century Literature: 3 semester hours.

Study of the major literature of the late nineteenth century and its background, with emphasis upon the development of English, American or other literature of the period. R2

ENGL 4468 Studies in Early Twentieth Century Literature: 3 semester hours.

Study of the major literature of the early twentieth century and its background, with emphasis upon English, American or other literature of the period. R2

ENGL 4469 Studies in Contemporary Literature: 3 semester hours.

Study of recent major literature and its background, with emphasis upon English or American or other literature of the period. R2

ENGL 4470 Post-Colonial Literature: 3 semester hours.

Study of post-colonial literary texts, with attention to the role of literature in history, political resistance, and social movements of one or more colonized cultures. R2

ENGL 4472 Proseminar in a Major Literary Figure: 3 semester hours.

Intensive study in a single major author other than Chaucer, Milton, and Shakespeare, demanding some independent study and small group participation. R1

ENGL 4473 Chaucer: 3 semester hours.

Intensive study of selected works of Chaucer. D

ENGL 4474 Milton: 3 semester hours.

Intensive study of selected works of Milton. D

ENGL 4476 Shakespeare: 3 semester hours.

Intensive study of selected works of Shakespeare. R1

ENGL 4477 Shakespeare in Performance: 3 semester hours.

Intensive study of selected works by Shakespeare, with special emphasis placed upon performance issues. Includes field trip to attend live dramatic productions of Shakespearian plays. D

ENGL 4480 Varieties of American English: 3 semester hours.

In-depth study of various dialects of American English, including historical evolution of different dialects, effects of migration on dialects, and influences of non-English immigrant languages on development of American English. Field-work studying the Snake River dialects of Idaho. Equivalent to ANTH 4480. PREREQ: ENGL 1107/ANTH 1107/LANG 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4481 Studies In Grammar: 3 semester hours.

The advanced study of English grammar. Possible theoretical approaches might include generative grammar, functional grammar, relational grammar, and communicative grammar. PREREQ: ENGL 1107/ANTH 1107/LANG 1107 or ENGL 2280 or ENGL 2281. R2

ENGL 4484 Rotating Topics in Linguistics: 3 semester hours.

Rotating topics in different areas of linguistics and linguistic analysis. Consult current schedule of classes for exact course being taught. May be repeated for up to 6 credits. Equivalent to ANTH 4484 and LANG 4484. PREREQ: ENGL 1107/ANTH 1107/LANG 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4486 Old English: 3 semester hours.

Intensive study of the Old English language, with attention to its intrinsic structure and its relation to Middle and Modern English. R2

ENGL 4487 History of the English Language: 3 semester hours.

Study of the linguistic and socio-political changes and developments in the English language. PREREQ: ENGL 1107/ANTH 1107/LANG 1107 or ENGL 2280 or ENGL 2281. R2

ENGL 4488 Introduction to Sociolinguistics: 3 semester hours.

Study of the patterned covariation of language and society, social dialects and social styles in language; problems of bilingualism, multilingualism, creoles and language uses. Equivalent to ANTH 4450. PREREQ: ENGL 1107/ANTH 1107/LANG 1107 or ENGL 2280 or ENGL 2281. F

Env Engr (ENVE)

Courses**ENVE 4404 Environmental Risk Assessment: 3 semester hours.**

Quantitative and qualitative approaches to characterizing and controlling contaminant pathways. Risk assessment requirements and implications in superfund projects for engineers working on remediation. PREREQ: Permission of major advisor. F

ENVE 4408 Water and Waste Water Quality: 3 semester hours.

Principles of chemistry in application to water and wastewater treatment systems for water quality control and reuse. PREREQ: Minimum grade of C- in CHEM 1111 and CHEM 1111L or equivalent. S, D

ENVE 4409 Water and Waste Water Lab: 1 semester hour.

Fundamental analytical procedures for measurement of water and waste water quality. Introduction to materials and protocols associated with general environmental analytical techniques. COREQ or PREREQ: ENVE 4408. D

ENGL 4490 Topics in Folklore: 3 semester hours.

Focused study of an issue in folkloristics or a particular genre of folklore, including history of the scholarship concerning that issue or genre. Rotating topics. May be repeated up to 9 credits with different topics. Equivalent to ANTH 4490. R1

ENGL 4491 Senior Seminar in Literature: 3 semester hours.

Students demonstrate their reading and research skills in this capstone course. Within instructor's chosen theme, students develop a cumulative research project including a substantial paper and oral presentation. PREREQ: ENGL 3311 and 6 additional hours of upper-division English. F, S

ENGL 4492 Folklore and Literature: 3 semester hours.

Study of cross-influences between oral and written literatures. Emphasis may be on a written genre that imitates and draws upon oral genres, a movement or period in which oral tradition strongly influences written forms, or a particular writer who incorporates motifs and storytelling patterns from folklore. Rotating topics. May be repeated for up to 9 credits. R2

ENGL 4493 Senior Seminar Professional Writing: 3 semester hours.

Capstone course for professional writing students. Each student will design and complete a substantial professional writing project. Projects will require a project proposal or outline, reading list, final document, and oral presentation. PRE-or-COREQ: ENGL 4410. R1

ENGL 4494 Senior Seminar in Creative Writing: 3 semester hours.

Capstone course suitable for students working in any creative writing genre. Each student will compile in advance a reading list and project outline in consultation with instructor. During course, the student will complete a substantial creative writing project and give a presentation. Instructor will also assign class-wide readings, some from each student's list. Workshop-based. PREREQ: ENGL 4406 and permission of instructor. R1 S.

ENGL 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

ENVE 4410 Introduction to Environmental Engineering: 3 semester hours.

Introduction to physical, chemical, and biological principles of solid and hazardous waste management, water and wastewater treatment, air pollution control and national environmental regulation. PREREQ: ENVE 4408 or equivalent. F

ENVE 4430 Air Pollution and Solid Waste: 3 semester hours.

Sources, characteristics, regulations, and effects of air pollution and solid waste on environmental quality; analysis and design of control systems, including the recovery of resources from solid waste. PREREQ: Senior standing in Engineering or permission of instructor. D

ENVE 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Family and Consumer Sciences (FCS)

Courses

FCS 1100 Family and Consumer Sciences Professions: 1 semester hour.

An introduction to professional careers in related fields. Candidate and career expectations, career options, leadership, balancing work and family, publications, and research directed toward the development of emancipated professionals. D

FCS 1109 Introduction to Early Childhood Professions: 2 semester hours.

Foundations and professional careers in early childhood education and early childhood special education. S

FCS 1120 Personal Economics: 3 semester hours.

A study of economic decisions facing people in their daily lives as individuals and families. Topics include budgeting, consumer credit, buying or renting a home, medical care, life insurance, retirement planning, investing, and tax management. D

FCS IXXX Transfer elective: 1-3 semester hours.

FCS 2202 Field Experience Internship: 1-32 semester hours.

Working field internship; innovative approaches in preparation of CDA trainees. Experiences in a curriculum center, library, local settings, resource and day care centers, head start programs, nursery schools (public and private), and child development centers. Experience with educational and creative supplies and materials. PREREQ: Approved enrollment in Child Development Associate Program. D

FCS 2207 Infants and Toddlers in Early Childhood Education: 3 semester hours.

Study of developmentally appropriate care and education of infants and toddlers. Field experience required. PREREQ: EDUC 2201 or permission of instructor.

FCS 2209 Early Childhood Environments: 3 semester hours.

Study of home and school environments as foundations for fostering young children's learning. Emphasis on materials, space, schedule, and verbal interactions. Field experience required. PRE-or-COREQ: EDUC 2201. OS

FCS 2229 Textile Products: 3 semester hours.

Study of the interactive relationship among fibers, fabrics, and the construction of textile products. Information applied within the context of home and family use. PREREQ: Permission of instructor. ES

FCS 3314 Interior Design and Housing: 3 semester hours.

Study of individual housing needs and alternatives including practical applications and decision making. Emphasis on social-psychological aspects of housing. Topics include dwelling design, construction, financing, remodeling, and interior furnishings. EF

FCS 3322 Building Positive Relationships: 3 semester hours.

Exploration of the role of decision-making and interpersonal understanding as forces in creating self-formed individuals. Emphasis placed upon building and maintaining positive interpersonal relationships. PREREQ: SOC 1101 and PSYC 1101. D

FCS 3332 Programs in Family and Consumer Sciences: 3 semester hours.

Organization of professional-technical programs as influenced by legislation, State guidelines, association standards, and philosophical frameworks. Lecture and laboratory. OS

FCS 3373 Curriculum and Assessment in Early Childhood Education: 4 semester hours.

Study of assessment and inquiry based curriculum practices which support development and integrate learning in content areas, including literacy, math, science, art, music, drama, and movement. Field experience required. PREREQ: FCS 2209 and admission to Teacher Education Program or permission of instructor. COREQ: FCS 4435. F

FCS 3374 Constructing Social Understanding in Early Childhood Education: 4 semester hours.

Study of psychosocial and linguistic strategies to support learning, problem solving and other positive relationships in families and classrooms. Emergent social studies connections defined. PREREQ: FCS 3373 or permission of instructor. S

FCS 3375 Integrating Practices in Early Childhood Education: 3 semester hours.

Planning, delivery and assessment of learning in early childhood settings. Emphasis on reflective practice and professional collaboration as basis for decision-making. Field experience required. COREQ: FCS 3374 or permission of instructor. S

FCS 4400 Foundations of Early Childhood Special Education: 3 semester hours.

Survey of the history, philosophy, relevant legislation, and interdisciplinary aspects of the field. Major focus on typical and atypical development from birth through five years, integrating all areas of development. F

FCS 4401 Foundations of Early Childhood Education: 3 semester hours.

Examination of social, historical, and philosophical foundations of early childhood education and their respective influences on currently accepted concepts and practices in programs serving young children from birth through age eight. AF

FCS 4411 Concepts and Practices in Blended Early Childhood Programs I: 3 semester hours.

Synthesis of assessment and curriculum practices which support development and learning for all young children. Field experiences required. PREREQ: FCS 3373 or permission of instructor. F

FCS 4412 Concepts and Practices in Blended Early Childhood Programs II: 3 semester hours.

Candidate projects and integration of current policies, issues, and practices affecting young children and families. Introduction to program administration, supervision, and evaluation. Field experiences required. PREREQ: FCS 4411 or permission of instructor. S

FCS 4429 Social and Psychological Aspects of Clothing: 3 semester hours.

Study of clothing as a tool of self-expression and social interaction. Various personal and societal contexts emphasized. OF

FCS 4431 Family Resource Management: 3 semester hours.

Management theory for resource utilization and goal achievement. Issues include stress, communication, and family types. Emphasis on decision-making related to the dynamics of balancing work and family. PREREQ: FCS 4470 or permission of instructor. ES

FCS 4435 Relationships within Families: 3 semester hours.

Building and maintaining positive relationships within families. Critical issues facing individuals and families including communication, cultural diversity, balancing multiple roles, time management and financial planning. EF

FCS 4440 Partnerships with Families of Young Children: 3 semester hours.

Examination of early intervention policies and practices. Emphasis on development and implementation of individual family service plans and service delivery in natural settings. Field experience required. PREREQ: FCS 3373 or permission of instructor. S

FCS 4470 Consumer Economics: 3 semester hours.

Financial management content with a focus on developing effective decision-making processes for managing resources. Topics: The changing American family; consumer protection and recourse; purchasing decisions; consumer credit; fundamentals of savings/investment; and insurance. OF

FCS 4471 Advanced Consumer Economics: 3 semester hours.

Advanced study of social and economic problems affecting individuals and families. Topics: financial security; credit and loans; tax planning; major consumer purchases; risk management; investments; retirement and estate planning. PREREQ: FCS 4470 or permission of instructor. S

FCS 4472 Teaching Consumer Economics: 1-3 semester hours.

Designed to provide educators with current content and resources for developing consumer and economic education curriculum. Teaching techniques discussed and practiced. PREREQ: FCS 4471 or permission of instructor. D

FCS 4481 Special Problems in Family and Consumer Sciences: 1-3 semester hours.

Candidates select problem on the basis of needs, interests, or abilities. Independent work in the laboratory, library, or community. Regular advisor conferences required. PREREQ: Permission of instructor. F, S, Su

FCS 4490 Field Experience in Family and Consumer Sciences: 1-3 semester hours.

Candidates participate in a variety of settings including schools, agencies, businesses, and child care settings. PREREQ: Permission of instructor. F, S

FCS 4493 Early Childhood Education: Student Teaching Internship: 6-12 semester hours.

Candidates assume instructional and management responsibilities in supervised early childhood/primary setting. May be repeated. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

FCS 4494 Partnerships with Professionals: 3-6 semester hours.

Professional cooperative experience with business agency. Seminar plus 126 hours experience, 3 credits; 252 hours, 6 credits. PREREQ: 9 credits in emphasis area, 2.5 GPA, OLP 4457, and permission of instructor. D

Finance (FIN)

Courses

FIN 1115 Personal Finance: 3 semester hours.

Evaluate and analyze personal and public information and databases to develop financial literacy for budgeting, credit, borrowing, planning, insurance, investing and estate planning. Examine financial literacy within the larger context of the regulatory environment, society, data integrity and ethics. Satisfies Objective 8 of the General Education Requirements. F, S

FIN 3303 Financial Concepts: 3 semester hours.

Applications of basic financial decision-making tools that emphasize fundamental financial concepts and literacy. Topics include financial statement analysis, time value of money, capital budgeting, risk and return, the cost of capital, valuation, investing fundamentals, raising capital, and operation of financial markets. Available to non-business majors only. D

FIN 3315 Corporate Financial Management: 3 semester hours.

Corporate finance basics such as financial statement analysis, time value of money, security valuation, capital investment analysis, cost of capital, capital structure, and dividend policy. PREREQ: ACCT 2202, MGT 2216, ECON 2201, and ECON 2202. F, S

FIN 3393 Finance Internship: 1-3 semester hours.

Internship program coordinated by faculty providing significant exposure to finance issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

FIN 4405 Advanced Corporate Financial Management I: 3 semester hours.

Evaluation and analysis for financial decision making. Asset valuation, cost of capital, leasing, dividend policy, mergers and acquisitions, IPOs, asset restructuring and additional topics related to firms' financial decisions and performance. PREREQ: FIN 3315. F, S

FIN 4431 Financial Modeling: 3 semester hours.

Survey of integrative modeling with special applications of computer models. Includes topics from cash flow forecasting, mergers and acquisition, financial structure, and capital budgeting. PREREQ: FIN 3315. D

FIN 4445 Real Estate Finance: 3 semester hours.

Principles and methods of valuing business and residential land and improvements; analysis of sources and methods used in the financing of construction and development. PREREQ: FIN 3315. D

FIN 4448 Financial Management of Depository Institutions: 3 semester hours.

An analysis of the managerial issues which affect the financial performance of depository institutions such as capital adequacy, liquidity and asset/liability management techniques, profitability analysis, funding and investment decisions. PREREQ: FIN 3315. D

FIN 4451 Student Managed Investment Fund I: 3 semester hours.

Management of the D.A. Davidson Student-Managed Investment Fund. Students act as financial analysts. Provides students with the real-world knowledge and judgment crucial to sound investing. Students may apply either FIN 4451 or FIN 4452, but not both, toward their finance electives. PREREQ: FIN 3315. F

FIN 4452 Student Managed Investment Fund II: 3 semester hours.

Continuation of FIN 4451. Management of the D.A. Davidson Student Investment Fund. Students act as financial analysts. Emphasis on security selection, portfolio management, and creation of an annual report. Students can apply either FIN 4451 or FIN 4452, but not both, toward their finance electives. PREREQ: FIN 3315. S

FIN 4464 Entrepreneurial Finance: 3 semester hours.

Develops financial/managerial skills important to students pursuing entrepreneurial careers. Topics include financial issues to entrepreneurial firms and financing sources available to entrepreneurial companies. PREREQ: FIN 3315. D

FIN 4475 International Corporate Finance: 3 semester hours.

Study of financing investment projects abroad including the tapping of overseas capital markets, financing export transactions, hedging foreign exchange risks, and the control alternatives of international business. PREREQ: FIN 3315. D

FIN 4478 Investments: 3 semester hours.

Fundamental principles in the risk-return valuation of financial instruments. Topics include the institutional framework in which securities are traded, modern portfolio theory, asset pricing, derivatives, and portfolio management. PREREQ: FIN 3315. F, S

FIN 4480 Corporate Analysis and Performance: 3 semester hours.

Modeling, measuring and interpreting financial and strategic management of firms for decision making from a short- and long-term perspective. PREREQ: FIN 3315. D

FIN 4484 Options and Futures: 3 semester hours.

Examination of the pricing and use of options, financial futures, swaps, and other derivative securities. PREREQ: FIN 3315. D

FIN 4491 Seminar in Finance: 3 semester hours.

Reading, discussion, and preparation of reports on selected topics. Restricted to senior and graduate students in business who have the consent of the instructor. May be repeated for up to 6 credits with permission of the instructor. D

FIN 4492 Special Problems in Finance: 2-3 semester hours.

Research and reports on selected problems or topics in finance. May be repeated for up to 9 credits with different content and permission of the major advisor and the dean. PREREQ: Senior or Graduate status in Business, and permission of the Dean. D

FIN 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Fire Service Admin (FSA)

Courses

FSA 1101 Building Construction for Fire Protection: 2 semester hours.

Components of building construction related to fire and life safety. Firefighter safety, elements of construction and design of structures, building inspection, preplanning fire operations, and operating at emergencies. D

FSA 1102 Fire Behavior and Combustion: 2 semester hours.

Theories and fundamentals of fire: start, spread, and control. PREREQ: CHEM 1100 or CHEM 1101 or CHEM 1111. D

FSA 1103 Fire Prevention: 2 semester hours.

Comprehensive history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use of fire codes; identification and correction of fire hazards; and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire- and life-safety education. D

FSA 1105 Fire Protection Systems: 2 semester hours.

Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. D

FSA 1106 Principles of Emergency Services: 2 semester hours.

Overview of fire protection. Includes philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; fire strategy and tactics. D

FSA 1107 Principles of Fire and Emergency Services Safety and Survival: 2 semester hours.

This course introduces the basic principles and history of the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. D

FSA 2201 Fire Administration: 2 semester hours.

Organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. D

FSA 2202 Legal Aspects of the Emergency Services: 2 semester hours.

Federal, State and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. D

FSA 2250 Fire Science Integration: 4 semester hours.

This course is an integration course delivered through Idaho State University. The purpose is to take a student who has completed the Associate of Applied Science (AAS) in Fire Science or Associate of Applied Science (AAS) in Fire Service Technology and prepare them for the Bachelor of Science (BS) degree program in Fire Services Administration at Idaho State University. This course is designed to take the student who has the technical foundation learned in the AAS program and prepare them for the critical thinking necessary in the BS program. AAS students who wish to pursue the Bachelor of Science in FSA must take FSA 2250 Fire Science Integration. FSA 2250 is waived for students who have completed an AS or BS degree. FSA 2250 is designed for students who have an AAS in Fire Science. PREREQ: permission of instructor. D

FSA 2296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. D

FSA 2298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

FSA 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

FSA 3323 Fire and Emergency Services Administration: 3 semester hours.

Organization and management in the fire services, including new technologies and changing organizational structures, personnel functions, manpower and training, statistics and reporting systems, and the managing of finances and other resources. PREREQ: FSA 2201. D

FSA 3324 Analytic Approaches to Public Fire Protection: 3 semester hours.

Introduction to systems analysis procedures and applications in fire protection, including systems thinking, statistical analysis, concepts and their application, system models, gathering and presenting data, fire incident analysis, financial analysis, performance surveys, using results, and public fire protection. PREREQ: FSA 1105. D

FSA 3325 Personnel Management for the Fire Service Administrator: 3 semester hours.

Relationships and issues in personnel administration and human resource development within the context of fire-related organizations. PREREQ: FSA 2201, and FSA 2202. D

FSA 3326 Fire Prevention Organization and Management: 3 semester hours.

Techniques, procedures, programs, and agencies involved with fire prevention, including concepts of fire prevention, governmental and non-governmental fire prevention functions, organizing fire prevention efforts, fire safety-related codes, effective fire inspection, and evaluation of fire safety efforts. PREREQ: FSA 1103. D

FSA 3327 Fire-Related Human Behavior: 3 semester hours.

Human behavior in fires and disasters, arson, fire fighting, code compliance, and public fire education. Includes individual and group response during fire emergencies, fire's impact on individuals, families and the community, juvenile fire setters, arson, special populations, and the psychological impact of fire. D

FSA 3328 Disaster Planning and Control: 3 semester hours.

Concepts and principles of community risk assessment, planning, and response to fires and natural disasters. Introduction to disaster and fire defense planning, fire department disaster planning, the incident command system, mutual aid and automatic response, and training and preparedness. D

FSA 3329 Political and Legal Foundations of Fire Protection: 3 semester hours.

Legal, political and social aspects of the government's role in public safety, including the American legal system, legal processes, legal basis for the fire service, tort liability, negligence and fire suppression, safety, negligent operation, and the legal basis for fire safety regulation. PREREQ: FSA 2202. D

FSA 3330 Fire Protection Structures and Systems: 3 semester hours.

Design principles involved in structural fire protection and automatic suppression systems, including fire protection of buildings, fire resistance and endurance, computations and evaluation procedures for fire resistance, flame spread evaluation, and smoke production by burning materials. PREREQ: FSA 1105. D

FSA 3331 Community Risk Reduction for Fire and Emergency Services: 3 semester hours.

Community sociology, the role of fire-related organizations within the community, and their impact on the local fire problems. Introduction of community sociology, the changing nature of fire threat, and fire service relationships within the community. PREREQ: FSA 1103. D

FSA 3332 Fire Investigation and Analysis: 3 semester hours.

Examines technical investigative, legal and management approaches to the arson problem. Topics include an introduction to the principles of incendiary fire analysis, chemistry of fire, fire propagation and development, incendiary fire susceptibility, incendiary fire motivation, psychological and social motives. PREREQ: FSA 1102. D

FSA 3333 Applications of Fire Research: 3 semester hours.

Rationale for conducting fire protection research activities and applications, including fire dynamics and fire safety properties, fire test standards and codes, fire modeling, structural fire safety, automatic detections and suppression, life safety, transportation fire hazards, risk analysis and loss control, firefighter health and safety, fire service applied research. PREREQ: MATH 1153 and FSA 1103. D

FSA 3334 Fire Dynamics: 3 semester hours.

Fire dynamics within the context of fire fighting, including chemistry, physical processes and fluid dynamics, fire and combustion, explosions, ignition and flame spread, flames and fire plumes, suppression, fire dynamics applications to building codes and large-loss fires, special hazards, and fire modeling. PREREQ: FSA 1102. D

FSA 3335 Emergency Medical Services Administration: 3 semester hours.

An overview of the management of emergency medical services including organization, budget determination, purchasing and communication. Emphasis on directing and delegation of decision making including managing stress. D

FSA 3336 Managerial Issues of Hazardous Materials: 3 semester hours.

Federal and state regulations concerning hazardous materials, including health and safety, the hazardous materials management system, the incident command system, politics of hazmat incident management, site management and control, hazard and risk evaluation, personal protective clothing and equipment, and information management. Equivalent to EMGT 3306. D

FSA 4409 Practicum-Internship: 1-3 semester hours.

Supervised experience in fire service administration in a variety of command levels and responsibilities. Open to degree candidates only. The FSA Internship is required for students with less than 5 years in the Fire Services. Graded P/NP.

French (FREN)

Courses

FREN 1101 Elementary French I: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in French and to acquaint them with the culture of the French-speaking countries. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. F, S

FREN 1102 Elementary French II: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in French and to acquaint them with the culture of the French-speaking countries. Practice in the language laboratory is required. PREREQ: FREN 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. F, S

FREN 2200 Intermediate Enrichment: 1-4 semester hours.

Enhances intermediate students' progress in listening, speaking, reading, writing as well as broadening cultural and historical understanding. May be repeated for a maximum of 4 credits. COREQ: FREN 2201 or FREN 2202. PREREQ: C- in FREN 1102. F, S, Su

FREN 2201 Intermediate French I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in French. Contrastive study of culture as reflected in the French language. Practice in the language laboratory is required. PREREQ: FREN 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F

FREN 2202 Intermediate French II: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in French. Contrastive study of culture as reflected in the French language. Practice in the language laboratory is required. PREREQ: FREN 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

FREN 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

FREN 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

FREN 3300 Intensive Conversation: 3 semester hours.

Students who have not had an immersion experience but who have completed intermediate course work focus on developing conversational skills. Emphasis on real-life topics, tasks, and functions. Graded S/U. Restricted to declared FREN major or graduate student. PREREQ: C- in FREN 2202 and permission of instructor. D

FREN 3301 French Conversation and Composition I: 3 semester hours.

Intensive practice speaking and writing French in forms and styles common to economics, politics, science, society, the arts and creative writing of the French-speaking world. PREREQ: FREN 2202 or equivalent. F

FREN 3302 French Conversation and Composition II: 3 semester hours.

Intensive practice speaking and writing French in forms and styles common to economics, politics, science, society, the arts and creative writing of the French-speaking world. PREREQ: FREN 2202 or equivalent. S

FREN 3303 Professional French: 3 semester hours.

Intensive practice speaking, reading and writing in French in business, medical, legal, or other professions. PREREQ: FREN 2202 or equivalent experience. Can be repeated for up to 6 credits with different content. D

FREN 3305 Study Abroad: 1-6 semester hours.

Available only through study overseas. Development of upper-division level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

FREN 3341 Survey of French Literature and Civilization I: 3 semester hours.

Comprehensive overview of the main currents of French cultural history and literature. PREREQ: FREN 2202 or equivalent. Conducted in French. D

FREN 3342 Survey of French Literature and Civilization II: 3 semester hours.

Comprehensive overview of the main currents of French cultural history and literature. PREREQ: FREN 2202 or equivalent. D

FREN 3375 Topics in Culture and Literature: 3 semester hours.

Explore a topic of interest in French literature and culture through the study of a wide variety of literary and cultural texts at an introductory level. May be repeated 3 times with different content. PRE-or-COREQ: C- in CMLT 3360 or FREN 3301 or FREN 3302. F, S

FREN 3381 French Current Affairs: 3 semester hours.

Study of contemporary French culture through an examination of current sociocultural issues in French speaking countries. Conducted in French. D

FREN 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

FREN 4400 French Advanced Grammar: 3 semester hours.

Survey of selected grammar and composition topics on the advanced level. PREREQ: Permission of instructor. D

FREN 4465 French Translation and Interpretation: 3 semester hours.

Theory and principles of translation and/or interpretation and their application in the fields of literature, business, law, and medicine. Topics may vary. May be repeated three times with different content. COREQ: FREN 4465L. PREREQ: Permission of instructor. D

FREN 4465L Translation and Interpretation Laboratory: 1-3 semester hours.

Intensive application of interpretation practices and procedures presented in FREN 4465. May be repeated 3 times with different content. PRE-or-COREQ: C- in FREN 3301 or FREN 3302. COREQ: FREN 4465. D

FREN 4470 Readings in French: 2 semester hours.

Reading, discussion, and preparation of reports on selected topics in French literature. May be repeated for up to 4 credits with different content. Conducted in French. PREREQ: Permission of instructor. D

FREN 4475 Topics in Culture and Literature: 3 semester hours.

Explore a topic of interest in French literature and culture at a more advanced level through the study of a wide variety of literary and cultural texts. May be repeated 3 times with different content. PREREQ: C- in CMLT 3360 or FREN 3301 or FREN 3302. F, S

FREN 4480 Independent Studies in French: 3 semester hours.

A directed project, under the guidance of an instructor, emphasizing individual study or research according to the needs of the student. PREREQ: Permission of instructor. D

FREN 4490 French Senior Seminar: 3 semester hours.

Advanced studies in selected topics from language, culture, literatures or methods of research. May be repeated for up to 6 credits with different content. Conducted in French. PREREQ: Permission of instructor. D

FREN 4493 French Internship: 1-3 semester hours.

Internship coordinated by faculty providing significant exposure to the use of French in a professional environment. May be repeated for up to 3 credits. Graded S/U. D

FREN 4495 Topics in Language and Culture for the Professions: 1-3 semester hours.

Enhance and supplement linguistic and cultural proficiency in a variety of professional contexts. May be repeated for a maximum of 3 credits with different content. PREREQ: Permission of instructor. D

FREN 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Geomatics Tech (GEMT)

Courses

GEMT 2231 Survey Computations: 3 semester hours.

Units of measurement and conversions, check and adjustment of raw data, closure and adjustment of survey figures, calculations for missing elements of a figure, working coordinates and coordinate geometry (COGO), intersections of straight lines and circles, instrument specifications and introduction to adjustment theory. S

GEMT 3310 Boundary Surveying Law: 3 semester hours.

Concept of boundaries, ownership, transfer, boundary law principles, presumptions, easements and reversions, sequential and simultaneous conveyances, case studies, Riparian and littoral rights, state laws, rules for practicing surveying, ALTA survey. PREREQ: GEMT junior status or permission of instructor. S

GEMT 3311 Advanced Surveying: 3 semester hours.

Discuss transverse mercator projection and state plane coordinates, spherical trigonometry and astronomical observation, and coordinate geometry calculations. Control surveys include triangulation, precise traverse, intersection and resection. Collect data using robotic station, digital level, and precise leveling. PREREQ: CET 0226 or permission of instructor. F

GEMT 3312 Public Land Surveying: 3 semester hours.

Study of surveys of public land. Includes a general scheme of subdivision of U.S. public lands and legal aspects of land surveys, riparian rights, and irregularities in subdivision. Studies of Idaho Codes and regulation of public land surveys, corner perpetuation and filing, and recording of surveys. Students do case study and final report. PREREQ: CET 0122. F

GEMT 3313 Surveying Software Applications: 2 semester hours.

Civil/survey software. Topics include data download; batch file creation; editing and processing; COGO functions; field to finish functions; area and lot sizing; INs, DTMs and contours creation; calculation of volumes and basic road design and layout. PREREQ: CET 0226 or permission of instructor. F

GEMT 3314 Research and Evidence in Surveying: 3 semester hours.

Survey of research sources and techniques including field, surveyors' offices, governmental agency, courtroom procedures and practices. Local government agency permit and approval procedures. Surveyor/attorney interaction and roles. Student will work on case studies and prepare a final report. PREREQ: CET 0226. S

GEMT 3315 Surveying Adjustments and Coordinate Systems: 3 semester hours.

Studies matrix inverse; solution of linear equation by matrices, theory and computation of least squares adjustments, coordinate transformation, error ellipses, and statistical testing. PREREQ: MATH 1170, MATH 1153 and CET 0226. S

GEMT 3317 Subdivision Planning and Platting: 2 semester hours.

Land use planning; governmental regulations and permits as applied to subdivisions; subdivision planning, computations and preparation of subdivision plats. PREREQ: CET 0226. PRE-or-COREQ: GEMT 3313. F

GEMT 3319 Writing Legal Descriptions: 1 semester hour.

Covers principles of interpretation, techniques, and forms for descriptions and preparation of land descriptions. Layout, content, and display of plats and descriptions will be covered. PREREQ: Permission of instructor. F

GEMT 4400 Essentials of Surveying: 2 semester hours.

Preparation for fundamentals of surveying exam. May not be used as a technical elective. May be repeated once for a total of 4 credits. PREREQ: Senior in Geomatics, graduate or Civil Engineering Technology, Civil Engineering, or industry experience. Graded S/U. F, S

GEMT 4411 Geodesy: 3 semester hours.

Introduces geometry of ellipsoid, reference coordinate systems, local geodetic coordinate system, reduction of observation to other geodetic values, precise leveling and orthometric height, direct and inverse geodetic position computation and gravity field of earth. PREREQ: GEMT 3311 or permission of instructor. S

GEMT 4413 Land Information System: 3 semester hours.

Model of land information system, reference systems, data capture, structure, quality, and implementation of land information system. Student works on a case study and writes a final report. PREREQ: GEMT 2227 and MATH 1147 or permission of instructor. D

GEMT 4415 Survey Office Practice: 3 semester hours.

Introduction to the broad skills required of a surveyor running a business. Topics covered include formulating a business plan, forms of business organizations, basic financial forms and accounting, concepts of pricing and bidding, personnel management, marketing, contracts and proposals, and project management. PREREQ: Senior standing or permission of instructor. S

GEMT 4416 Surveying Project: 3 semester hours.

An independent study capstone course designed to further develop the skills required of a professional surveyor. Project is selected, designed, and performed under the guidance of a faculty member. A formal presentation and defense of the project to a faculty and peer committee is required. PREREQ: Senior standing or permission of instructor. D

GEMT 4425 Principles of Cartography: 3 semester hours.

Studies history of cartography; theory and practice of cartography including map reading, scales, spatial reference systems, projections, data acquisition, thematic mapping, map simplification, classification, generalization and map design, and computer mapping. PREREQ: GEMT junior status or higher or permission of instructor. S

GEMT 4430 GPS Principles and Applications: 3 semester hours.

Introduction to theory and use of GPS for mapping and survey application. Basic principles of GPS positioning, GPS differential techniques, types of GPS receivers, static, kinematic and RTK procedures, vector processing and adjustment, coordinate creation and output, and export of result. PREREQ: CET 0226 or permission of instructor. F

GEMT 4432 Principles of Photogrammetry: 3 semester hours.

Introduction to vertical photo geometry and its scale, relief and tilt displacement, stereoscopic viewing, parallax measurement, mosaics, orientations, development of planimetric and topographic maps, flight planning, softcopy photogrammetry and introduction to aerial triangulation. PREREQ: CET 0226 or permission of instructor. S

GEMT 4496 Independent Study: 1-8 semester hours.

Designed for creative problem solving and for integrating techniques into geomatics. Topics chosen depend upon student's interest or specific need of individuals in the area of surveying, mapping, geodetic surveying, boundary surveying, geodesy, remote sensing, cartography, and photogrammetry. PREREQ: Permission of instructor. D

GEMT 4498 Special Topics: 1-3 semester hours.

Designed for creative problem solving and for integrating techniques into geomatics. Topics chosen depend upon student's interest or specific need of individuals in the area of surveying, mapping, geodetic surveying, boundary surveying, geodesy, remote sensing, cartography, and photogrammetry. PREREQ: Permission of instructor. D

Geosciences (GEOL)

Courses

GEOL 1100 The Dynamic Earth: 3 semester hours.

Understanding the Earth as a dynamic system. Explores the interaction between four major earth components: the solid earth, the atmosphere, the ocean and biological communities, including humans. Specific focus on climate change, natural hazards, and Earth resources. Partially satisfies Objective 5 of the General Education Requirements. F, S, ASu

GEOL 1100L The Dynamic Earth Lab: 1 semester hour.

Focuses on the Earth System and the interaction of humans with the environment. Topics include: earth, water and energy resources as well as natural and human-caused disasters. COREQ: GEOL 1100. Partially satisfies Objective 5 of the General Education Requirements. F, S, ASu

GEOL 1101 Physical Geology: 3 semester hours.

Geological fundamentals: rocks and minerals, geologic time, plate tectonics, earthquakes, volcanoes, surface processes, earth resources and climatic change. Partially satisfies Objective 5 of the General Education Requirements. D

GEOL 1101L Physical Geology Lab: 1 semester hour.

Classification and recognition of minerals and rocks, landforms on topographic maps and air photos. Geology of Pocatello area. PRE-OR-COREQ: GEOL 1101. Partially satisfies Objective 5 of the General Education Requirements. D

GEOL 1107 Real Monsters: 3 semester hours.

A survey of nature's most impressive animals as viewed through the critical lens of science. Explore animal evolution, empirical limits on form and function, and ecosystem response to catastrophic change using evidence from fossils. Use the scientific method to hone skills of observation, deduction and induction. Satisfies Objective 7 of the General Education Requirements. F, S

GEOL 1118 Geology in the Movies: 1 semester hour.

Geology, natural hazards, and human perception of risk, taught through analysis of disaster films. D

GEOL 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

GEOL 2204 Fluid Earth: 4 semester hours.

Evolution of the Earth from crust to atmosphere, including water, climate and earth surface processes. Hands-on learning through lab and field activities. F

GEOL 2205 Solid Earth: 4 semester hours.

Evolution of the Earth from core to crust, including volcanoes, earthquakes, and mountain building. Hands-on learning through lab and field activities. S

GEOL 2282 Undergraduate Laboratory Experience: 1-3 semester hours.

Participate in various laboratory or field-related tasks related to research projects, gaining practical experience via supervised operation of equipment, computers, and analytical instrumentation. PREREQ: Permission of instructor. Graded S/U. F, S, Su

GEOL 2292 Geosciences Careers Seminar: 1 semester hour.

Discussion of current topics, research, and employment opportunities across the breadth of the geosciences. May be repeated once. F

GEOL 3310 Geologic Field Methods: 3 semester hours.

A hands-on introduction to geologic field methods including seeing rock outcrops in context; using topographic maps, geologic maps, and the Brunton compass; and visualizing geologic structures in three dimensions through in-class exercises and field trips. One weekend field trip is required. PREREQ: GEOL 2205. F

GEOL 3313 Earth Materials I: 3 semester hours.

Introduction to physical and chemical composition of the earth, emphasizing minerals, mineral associations and mineral formation, and lab-based determinative methods of mineralogy from microscopic to planetary scales. PREREQ: GEOL 2205. PREREQ or COREQ: CHEM 1111 and CHEM 1111L. F

GEOL 3314 Earth Materials II: 3 semester hours.

Classifications, processes and environments of formation of igneous, metamorphic and sedimentary rocks. Lab- and field-based determinative methods of rock identification, classification and interpretation. PREREQ: GEOL 3313. S

GEOL 3315 Evolution of the Earth's Surface: 4 semester hours.

Evolution of the Earth's surface in recent geologic time. Physical and climatic processes that govern landscape evolution. Examination of landforms and landscapes to interpret paleo-environments and modern Earth surface processes. Lectures, discussions, laboratory exercises, and field trips. PREREQ: GEOL 2205. S

GEOL 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

GEOL 4402 Geomorphology: 4 semester hours.

Process-response approach to landforms and landscapes. Historical perspectives, endo- and exogenetic processes, equilibrium and relict landforms. Emphasis on interrelations among various geologic sub-disciplines. Field trips, some lab exercises. PREREQ: GEOL 3315 or permission of instructor. COREQ: GEOL 4402L. AF

GEOL 4402L Geomorphology Lab: 0 semester hours.

Assignments to apply principles from GEOL 4402. COREQ: GEOL 4402. AF

GEOL 4403 Principles of Geographic Information Systems: 3 semester hours.

Study of GIS fundamentals, vector and raster data models, introduction to GPS and Global Navigation Satellite Systems, basic spatial analysis, geodatabases, and metadata. Practical application of industry standard software. Requires competence in computer operating systems. COREQ: GEOL 4403L. F, S

GEOL 4403L Principles of GIS Laboratory: 0 semester hours.

Computer lab assignments to apply principles from GEOL 4403. COREQ: GEOL 4403. F, S

GEOL 4404 Advanced Geographic Information Systems: 3 semester hours.

Study of relational databases, spatial analysis, and remote sensing. Practical application of industry standard software. Exercises include digitizing, querying, digital terrain modeling, and image processing. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. F S

GEOL 4405 Volcanology: 3 semester hours.

Aspects of physical and chemical volcanology: types of volcanoes; interpretation of volcanic deposits; properties of magma; generation, rise and storage of magma; volcanic hazards and prediction. PREREQ: One of GEOL 3314, GEOL 4402, GEOL 4421 or GEOL 4452. AF

GEOL 4407 GPS/GNSS Applications in Research: 3 semester hours.

Overview of satellite positioning systems usage. Topics include GPS and Global Navigation Satellite Systems theory, basic mapping concepts, use of mapping-grade receivers and survey-grade systems for data collection. Sample design for data collection and spatial analysis in GIS. PREREQ: GEOL 4403. F

GEOL 4408 GeoTechnology Seminar: 2 semester hours.

GIS applications in natural and social sciences; ethical and legal issues, current status and recent advances in GeoTechnology. Lectures, discussion, readings. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. F, S

GEOL 4409 Remote Sensing: 3 semester hours.

Fundamentals and applications of multispectral, hyperspectral, radar, and lidar remote sensing for the sciences. Emphasis on acquiring, processing, integrating, and interpreting imagery. Requires competence in computer operating systems. D

GEOL 4410 Science in American Society: 2 semester hours.

Observational basis of science; technology's historical influences on scientific developments; perceptions of science in contemporary America; tools/strategies for teaching science. PREREQ: Junior standing and permission of instructor. AF

GEOL 4411 Planetary Petrology: 3 semester hours.

Chemistry, mineralogy, tectonic association and petrogenesis of the principal igneous and metamorphic rock types on Earth and other planetary bodies. PREREQ: GEOL 3314. D

GEOL 4412 Petrology Laboratory: 2 semester hours.

Microscopic identification of igneous and metamorphic minerals and rocks. COREQ: GEOL 4411. D

GEOL 4413 Sedimentary Rocks in Thin Section: 2 semester hours.

A variety of terrigenous, volcanoclastic, and carbonate rocks will be studied. PREREQ or COREQ: GEOL 4411. D

GEOL 4415 Quaternary Global Change: 4 semester hours.

Use and interpretation of landforms, sediments, and fossil life in understanding Ice Age climatic cycles that influenced geologic events and environments during the Quaternary Period. COREQ: GEOL 4415L. AF

GEOL 4415L Quaternary Global Change Lab: 0 semester hours.

Laboratory exercises, problem sets, and field trips investigating Quaternary geoscience. COREQ: GEOL 4415. AF

GEOL 4416 Global Environmental Change: 3 semester hours.

Analysis of the causes and effects of both natural and human-induced environmental change. Integrates knowledge from other Earth Systems Science courses, and examines and analyzes relevant problems in global environmental change using scientific methods. PREREQ: GEOL 2204. D

GEOL 4417 Introduction to Soils and Critical Zone Processes: 3 semester hours.

Introduction to soils with emphasis on soil formation and classification and the physical, chemical and biological properties of soils. PREREQ: CHEM 1112 and CHEM 1112L or permission of instructor. COREQ: GEOL 4417L. AF

GEOL 4417L Introduction to Soils and Critical Zone Processes Lab: 1 semester hour.

Assignments to apply GEOL 4417. PREREQ: CHEM 1112 and CHEM 1112L or permission of instructor. COREQ: GEOL 4417. AF

GEOL 4420 Principles of Geochemistry: 3 semester hours.

Chemistry of the earth; discussion of factors controlling abundance, distribution, and migration of chemical elements within the earth. PREREQ: GEOL 3313, CHEM 1112 and CHEM 1112L, or permission of instructor. D

GEOL 4421 Structural Geology: 4 semester hours.

Structure of the earth's crust. Investigation of behavior of materials; identification and interpretation of earth structures. PREREQ: MATH 1147 or both MATH 1143 and MATH 1144, and GEOL 4452. COREQ: GEOL 4421L. S

GEOL 4421L Structural Geology Laboratory: 0 semester hours.

Assignments to apply principles in GEOL 4421. COREQ: GEOL 4421. S

GEOL 4422 Planetary Geology: 3 semester hours.

Formation of planetary bodies (planets, moons, asteroids and comets), internal and superficial processes, tectonics, and planetary exploration. PREREQ: GEOL 2205 or permission of instructor. D

GEOL 4427 Information Technology for GIS: 3 semester hours.

Study of servers, networks, system administration, relational database design and management, spatial database engines, and serving maps on the internet. The course uses traditional lectures along with demonstrations, and hands-on exercises. PREREQ: GEOL 4403 and GEOL 4403L or instructor approval. S

GEOL 4428 Programming for GIS: 3 semester hours.

Course introduces students Visual Basic programming for GIS. Students will learn the fundamentals of object oriented programming, rapid application development, basic coding, help documentation, and compiling. Students will complete a project where they develop a GIS utility of their choice. PREREQ: GEOL 4403 and GEOL 4403L. F

GEOL 4429 Watershed Hydrology: 3 semester hours.

Precipitation, snowmelt, evapotranspiration, infiltration and unsaturated flow, runoff processes, stream hydraulics, water quality, and modeling. PREREQ: MATH 1147 or MATH 1144, GEOL 2200; or instructor permission. COREQ: GEOL 4429L. AS

GEOL 4429L Watershed Hydrology Laboratory: 1 semester hour.

Laboratory exercises, problem sets, and field trips investigating watershed hydrology. COREQ: GEOL 4429. AF

GEOL 4430 Principles of Hydrogeology: 3 semester hours.

Surface and groundwater occurrence, movement and recovery, water quality and pollution, well construction principles, and computer modeling. PREREQ: MATH 1147 or both MATH 1143 and MATH 1144; and GEOL 2204 or permission of instructor. AS

GEOL 4431 Geobiology and the History of Life: 4 semester hours.

Principles of biology and geology applied to the study of fossil invertebrates. Consideration is given to morphology, classification, evolution, paleoecology, and the stratigraphic significance of fossils. PREREQ: Permission of instructor. COREQ: GEOL 4431L. AF

GEOL 4431L Geobiology and the History of Life Lab: 0 semester hours.

Assignments to apply principles from GEOL 4431. COREQ: GEOL 4431. AF

GEOL 4435 Vertebrate Paleontology: 4 semester hours.

Phylogenetic history of the vertebrates outlined in the light of morphology, classification, evolution, paleoecology, and the significance of fossils. Field trips. Equivalent to BIOL 4435. PREREQ: GEOL 4431, or BIOL 3304 and BIOL 3304L, or equivalent. F

GEOL 4439 Principles of Taphonomy: 3 semester hours.

Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Equivalent to ANTH 4439 and BIOL 4439. PREREQ: Permission of instructor. D

GEOL 4440 Ore Deposits: 3 semester hours.

Nature, mode of occurrence, origin of ores with each type related to a given rock association and as the product of a particular environment. PREREQ: One of: GEOL 3314, GEOL 4452 (recommended), or GEOL 4421. D

GEOL 4450 Field Geology: 6 semester hours.

Five-week summer field camp, applying standard geologic field instruments and geologic concepts to a series of field problems. PREREQ: GEOL 3314 (recommended) or GEOL 4420; GEOL 4421 and GEOL 4452. Su

GEOL 4451 Field Methods in Environmental Sciences: 3 semester hours.

Practical application of field methods. Students learn the techniques and concepts necessary to build water and carbon budgets for a small watershed. PREREQ: Permission of Instructor. D

GEOL 4452 Sedimentation-Stratigraphy: 4 semester hours.

Principles of sedimentation from source to diagenesis. The basis of stratigraphic nomenclature, classification, and correlation of rock units. Laboratory covers unconsolidated sediment, hand specimens, and field techniques. PREREQ: GEOL 3310 and ENGL 1102 or permission of instructor. PREREQ or COREQ: CHEM 1111 and CHEM 1111L. COREQ: GEOL 4452L. F

GEOL 4452L Sedimentation-Stratigraphy Laboratory: 0 semester hours.

Assignments to apply principles in GEOL 4452. COREQ: GEOL 4452. F

GEOL 4454 Basic Engineering Geology: 3 semester hours.

Geology applied to civil engineering projects; rock engineering classification systems and geotechnical parameters such as joint set orientation, ground behavior and underground construction. Preparation of baseline geotechnical reports. Equivalent to CE 4454. COREQ: GEOL 3314 or CE 3332. D

GEOL 4455 Geologic Data Methods: 3 semester hours.

Geotechnical investigations for civil works projects; geologic mapping for civil engineering purposes; development of engineering geologic profiles; core logging; preparation of Geotechnical Data Reports for civil works projects. Equivalent to CE 4455. PREREQ: CE 4454. D

GEOL 4456 Geology of Idaho: 2 semester hours.

Geologic provinces and plate tectonic history of Idaho. Topics include basement, Belt Supergroup, Phanerozoic passive margin, Cordilleran orogen, accreted terranes, Idaho batholith, Challis volcanics, Idaho mineral deposits, Basin and Range, Snake River Plain and Pleistocene floods. PREREQ: GEOL 1100 or GEOL 1101. AS

GEOL 4458 Geology of North America: 3 semester hours.

Regional stratigraphy and tectonics of North America emphasizing National Parks and the Intermountain West. Graduate students will do extensive additional reading in current literature. PREREQ: GEOL 2205. AS

GEOL 4460 Undergraduate Teaching Experience: 1 semester hour.

Supervised teaching in an undergraduate laboratory. Graded S/U. May be repeated for up to 2 credits. PREREQ: Permission of instructor. F, S, Su

GEOL 4465 Petroleum Geology: 3 semester hours.

Occurrence of hydrocarbons, well logs, geophysical methods, generation and migration of petroleum, the reservoir, traps and seals, petroleum basins, nonconventional petroleum resources. PREREQ: GEOL 3310 or permission of instructor. D

GEOL 4471 Historical Geography of Idaho: 3 semester hours.

Influences of geography and geology on Idaho's economic, political and cultural history. May be team taught and include field trips and discussion sections. Equivalent to HIST 4471 and POLS 4471. AF

GEOL 4475 Essentials of Geomechanics: 3 semester hours.

Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Equivalent to CE 4475. PREREQ: GEOL 4421 or CE 3350/ME 3350. D

GEOL 4476 Engineering Geology Project: 1 semester hour.

Team projects studying actual problems in engineering geology. Equivalent to CE 4476. PREREQ: GEOL 4454 or CE 4454. D

GEOL 4480 Special Topics in GIS: 1-3 semester hours.

Visual Basic programming for GIS. PREREQ: GEOL 4403 and GEOL 4403L and permission of instructor. F, S

GEOL 4481 GeoTechnology Internship: 1-3 semester hours.

Choose a project with either Natural Resource or municipal GIS emphasis and work with real-world data at the Internship's off-campus location. Projects focus on using/creating geotechnical data. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. F, S

GEOL 4482 Independent Problems and Studies in Geology: 1-3 semester hours.

Investigation of a geologic problem chosen by the student and approved by the staff. May be repeated for up to 6 credits. D

GEOL 4483 Earthquake Engineering: 3 semester hours.

Mechanism and characterization of earthquakes; seismic risk analysis; site and structural response; applications from points of view of engineer and geologist. Equivalent to CE 4480. PREREQ: GEOL 3313 or CE 3332, or permission of instructor. D

GEOL 4484 Laboratory Teaching Experience: 1 semester hour.

Supervised teaching of a GEOL undergraduate laboratory. PREREQ: 58 credits and permission of instructor. May be repeated for up to 2 credits. Graded S/U. F, S

GEOL 4490 Ecosystem Ecology and Global Changes: 4 semester hours.

Examination of the structure and function of ecosystems and their responses to natural and anthropogenic changes emphasizing energy, water, carbon, and nitrogen cycling. Field trip. Equivalent to BIOL 4490. PREREQ: BIOL 2209 or permission of instructor. PRE-OR-COREQ: CHEM 1111. S

GEOL 4491 Seminar: 1 semester hour.

Field trip or discussion of current geologic literature and geologic problems. May be repeated for up to 3 credits. PREREQ: Permission of instructor. Graded S/U. F, S

GEOL 4492 Earth and Environmental Systems Seminar: 1 semester hour.

Discussion of current topics, research, and employment opportunities in environmental and geosciences. May be repeated once. PREREQ: Junior or senior standing or permission of instructor. D

GEOL 4493 Senior Thesis: 1-4 semester hours.

This is a course supervised by a committee of at least two faculty members, approved by the chairperson(s) of the department(s) involved. The thesis topic may be interdisciplinary, with credits conferred by one or more departments. May be repeated for up to 4 credits. PREREQ: 90 credits and invitation by (or permission of) department chairperson(s). F, S

GEOL 4494 Expedition Seminar: 1 semester hour.

Long-distance field trip to explore the landscape and geologic history of a region, discuss current geologic literature and geologic problems. May be repeated for up to 2 credits. Graded S/U. PREREQ: Permission of instructor. F, S

GEOL 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

German (GERM)

Courses

GERM 1101 Elementary German I: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in German and to acquaint them with the culture of the German-speaking countries. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. F, S

GERM 1102 Elementary German II: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in German and to acquaint them with the culture of the German-speaking countries. Practice in the language laboratory is required. PREREQ: GERM 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. F, S

GERM 2200 Intermediate Enrichment: 1-4 semester hours.

Enhances intermediate students' progress in listening, speaking, reading, writing as well as broadening cultural and historical understanding. May be repeated for a maximum of 4 credits. PREREQ: C- in GERM 1102. COREQ: GERM 2201 or GERM 2202. F, S, Su

GERM 2201 Intermediate German I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in German. Contrastive study of culture as reflected in the German language. Practice in the language laboratory is required. PREREQ: GERM 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F

GERM 2202 Intermediate German II: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in German. Contrastive study of culture as reflected in the German language. Practice in the language laboratory is required. PREREQ: GERM 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

GERM 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

GERM 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

GERM 3300 Intensive Conversation: 3 semester hours.

Students who have not had an immersion experience but who have completed intermediate course work focus on developing conversational skills. Emphasis on real-life topics, tasks, and functions. Graded S/U. Restricted to declared GERM major or graduate student. PREREQ: C- in GERM 2202 and permission of instructor. D

GERM 3301 German Conversation and Composition I: 3 semester hours.

Students work toward mastery of German through readings, compositions, discussions and oral presentations. Subject matter centers on business, science, politics, and society. PREREQ: GERM 2202 or equivalent. F

GERM 3302 German Conversation and Composition II: 3 semester hours.

Students work toward mastery of German through readings, compositions, discussions and oral presentations. Subject matter centers on business, science, politics, and society. PREREQ: GERM 2202 or equivalent. S

GERM 3303 Professional German: 3 semester hours.

Intensive practice speaking, reading and writing German in business, medical, legal, or other professions. May be repeated for up to 6 credits with different content. PREREQ: GERM 2202 or equivalent. D

GERM 3305 Study Abroad: 1-6 semester hours.

Available only through study overseas. Development of upper-division level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

GERM 3341 Survey of German Literature and Civilization: 3 semester hours.

Comprehensive overview of the main currents of German cultural history and literature. Conducted in German. PREREQ: GERM 2202 or equivalent. D

GERM 3342 Survey of Austrian and Swiss Literature: 3 semester hours.

Comprehensive overview of the main currents of Swiss and Austrian cultural history and literature. PREREQ: GERM 2202 or equivalent. D

GERM 3375 Topics in Culture and Literature: 3 semester hours.

Explore a topic of interest in German literature and culture through the study of a wide variety of literary and cultural texts at an introductory level. May be repeated 3 times with different content. PRE-or-COREQ: C- in CMLT 3360 or GERM 3301 or GERM 3302. F, S

GERM 3381 German Current Affairs: 3 semester hours.

Study of contemporary German culture through an examination of current sociocultural issues in the German-speaking world. Conducted in German. D

GERM 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

GERM 4460 German Translation and Interpretation: 3 semester hours.

Theory and principles of translation and/or interpretation and their application in the fields of literature, business, law, and medicine. Topics may vary. May be repeated 3 times with different content. PREREQ: Permission of instructor. COREQ: GERM 4460L. D

GERM 4460L Translation and Interpretation Laboratory: 1-3 semester hours.

Intensive application of interpretation practices and procedures presented in GERM 4460. May be repeated 3 times with different content. PRE-or-COREQ: C- in GERM 3301 or GERM 3302. COREQ: GERM 4460. D

GERM 4470 Readings in German: 2 semester hours.

Reading, discussion, and writing on selected topics in German literature. May be repeated for up to 4 credits with different content. Conducted in German. PREREQ: Permission of instructor. D

GERM 4475 Topics in Culture and Literature: 3 semester hours.

Explore a topic of interest in German literature and culture at a more advanced level through the study of a wide variety of literary and cultural texts. May be repeated 3 times with different content. PREREQ: C- in CMLT 3360 or GERM 3301 or GERM 3302. F, S

GERM 4480 Independent Studies in German: 3 semester hours.

A directed project, under the guidance of an instructor, emphasizing individual study or research according to the needs of the student. PREREQ: Permission of instructor. D

GERM 4490 German Senior Seminar: 3 semester hours.

Advanced studies in selected topics from language, culture, literatures or methods of research. May be repeated for up to 6 credits with different content. Conducted in German. PREREQ: Permission of instructor. D

GERM 4493 German Internship: 1-3 semester hours.

Internship coordinated by faculty providing significant exposure to the use of German in a professional environment. May be repeated for up to 3 credits. Graded S/U. D

GERM 4495 Topics in Language and Culture for the Professions: 1-3 semester hours.

Enhance and supplement linguistic and cultural proficiency in a variety of professional contexts. May be repeated for a maximum of 3 credits with different content. PREREQ: Permission of instructor. D

Global Studies (GLBL)

Courses

GLBL 2200 Simulation: 1 semester hour.

Preparation for, and participation in, a simulation of international affairs. Required for Global Studies majors and minors. May be repeated for up to 2 credits. F, S

GLBL 2202 The World Today: Introduction to Global Issues: 3 semester hours.

This course takes a thematic approach to highlight major Global issues including health, politics, sports, terrorism, women's empowerment, human rights, science, technology, poverty, etc., and how various regions of the world have responded to the stress and storm that often characterize these life challenges with particular focus on the past two decades. Students will critically analyze how cultural, social, economic, and/or environmental exchanges between people from different regions interact in our globalized world today. Satisfies Objective 9 of the General Education Requirements. F, S, Su

GLBL 2203 International Organizations Today: Conflicts and Cooperation: 3 semester hours.

This course examines the role of international organizations in resolving conflicts and promoting cooperation among countries. Students will take a behind the scene look at international organizations such as the United Nations, NATO, World Bank, WTO, OPEC, etc. We will explore their impacts on peace, human rights, trade, and development via current events. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

GLBL 2270 World Regional Geography and Cultures: 3 semester hours.

This course provides an introduction to world regions with an emphasis on geography scholarship, regional analysis, and spatial thinking skills. Students will learn more about the diversity of contemporary global cultures and environments and gain a deeper appreciation of world regions through their environmental, social, cultural, geopolitical, and economic characteristics. Satisfies Objective 9 of the General Education Requirements. F, S

GLBL 2285 Internship in Global Studies: 1-9 semester hours.

This course allows students to undertake a significant experiential learning opportunity, typically with a company, non-profit, governmental, or community-based organization. Through direct observation, reflection, and evaluation, students gain an understanding of the internship site's work, mission, and audience, and how these potentially relate to their academic study, as well as the organization's position in the broader industry or field. F, S, Su

GLBL 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

GLBL 3300 Travel and Study Abroad: 3-6 semester hours.

Travel and study abroad through student exchange programs and other supervised experience. PREREQ: Approval of the Director of International Studies. F, S, Su

GLBL 3301 Seminar in Global Studies: 1-3 semester hours.

Selected topics of international interest. May be repeated for up to 6 credits. D

GLBL 3348 European Union: Institutions & Global Impact: 3 semester hours.

The European Union has ensured peace and prosperity in Europe since the end of World War II. Today, it stands to tackle new challenges such as the refugee crisis, terrorism, and financial stability. The class addresses the emergence and development of the EU as well as the institutional and legal structure of the European Union and challenges it faces today. F,S,Su

GLBL 3350 International Symposium: 1 semester hour.

Active participation in organizing the annual Frank Church Symposium for International Affairs, and attendance at the sessions. May be repeated for up to 8 credits. F, S

GLBL 3355 Global Governance: Superpowers and Globalization: 3 semester hours.

This course will help students understand how states, international organizations, and individuals work together to solve global problems and challenges. The class will look at the systems of rules, norms, and institutions. Surveying areas of global governance and the institutions utilized to manage common affairs, students will study areas of international cooperation such as human rights, disarmament, socioeconomic development, health, or environmental sustainability. At the end of the course, students will be able to critically assess the ability of international actors to tackle today's challenges. F, S, Su

GLBL 3379 Environment and Geography: 3 semester hours.

This course examines the geography of human-environment issues. It presents spatial and thematic approaches to better understand natural resource availability, management, and use with an emphasis on water and land resources issues, landscape studies, natural hazards, and environmental conservation. F, S, Su

GLBL 3380 Gender in Global Affairs (Issues and Impact): 3 semester hours.

This course critically examines the idea that international studies is gender-neutral and explore what it means to introduce gender as an analytical category both in terms of how we approach the study of global affairs and the impact of gendering global affairs on the lives of women around the globe. The course areas of international studies where women's lives and experience are specifically affected such as women in conflict and security, women's human rights, women and development, or sex and world peace. F, S, Su

GLBL 3385 Internship in Global Studies: 1-9 semester hours.

This course allows students to undertake a significant experiential learning opportunity, typically with a company, non-profit, governmental, or community-based organization. Through direct observation, reflection, and evaluation, students gain an understanding of the internship site's work, mission, and audience, and how these potentially relate to their academic study, as well as the organization's position in the broader industry or field. F, S, Su

GLBL 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

GLBL 4400 Simulation: 1 semester hour.

Preparation for, and participation in, a simulation of international affairs. Required for Global Studies majors and minors. May be repeated for up to 2 credits. F, S

GLBL 4420 Global Health and Policy: 3 semester hours.

This course is an examination of global social constructions of health and healthcare focusing on issues such as beliefs, governmental policies, approaches to curative medicine, and gender notions and their impact on healthcare. It introduces students to the culture of different societies and the effects on health. The course provides insights on the impact of culture, politics, economies, and gender relations on health policies. Repeatable with different content. F, S, Su

GLBL 4444 Senior Seminar (various topics): 1-3 semester hours.

Upper level credits to support thesis work of students in Global Studies major degree directed by Global Studies faculty. F, S, Su

GLBL 4466 Cultural Geography: 3 semester hours.

This course examines the spatial patterns, characteristics, and processes of human settlement on the earth using the tools, methods and perspective of the geographer. It utilizes a framework of five key themes in geographic inquiry including nature-culture, mobility, region, globalization, and cultural landscapes. F,S,Su

GLBL 4470 Independent Study: 1-3 semester hours.

This course provides the student with an opportunity to participate in the creation of academic learning experiences geared to individual needs, interests, aptitudes and desired outcomes. Plans must be approved by an appropriate faculty member who supervises and grades the project outcomes (usually completed within one semester). F, S, Su

GLBL 4480 International Parks and Protected Areas: 3 semester hours.

This course is a survey of international parks and protected areas through the lens of geographic methods and inquiry. It traces the evolution of the national park idea from the U.S. to parks around the world, including the U.N. model of World Heritage Sites. Students will gain knowledge about world cultures, environments, and geopolitics as they relate to public lands ownership and management. F, S, Su

GLBL 4485 Internship in Global Studies: 1-9 semester hours.

This course allows students to undertake a significant experiential learning opportunity, typically with a company, non-profit, governmental, or community-based organization. Through direct observation, reflection, and evaluation, students gain an understanding of the internship site's work, mission, and audience, and how these potentially relate to their academic study, as well as the organization's position in the broader industry or field. F, S, Su

GLBL 4488 Global Tourism Geography: 3 semester hours.

This course examines the geography of tourism, travel, and recreation around the world through the themes of place, space and environment. World travel destinations are explored as spaces of globalization, cultural heritage, and ecotourism. The course teaches students specific geographic knowledge so that they may develop a deeper understanding and empathy for cultural values and traditions that exist outside their own culture. PREREQ: GLBL 2270. F, S, Su

Health Care Admin (HCA)

Courses

HCA 1110 Introduction to the Allied Health Professions: 3 semester hours.

Introduction to the allied health professions with emphasis on interrelationships and the team approach to health care. F, S

HCA 1115 US Health System: 3 semester hours.

An introductory, comprehensive overview of the healthcare industry, health and disease, health professions, institutions, populations, and reimbursement, addressed from the three point perspective of history, terminology, and current issues. F, S, Su

HCA 2210 Medical Terminology and Communication: 2 semester hours.

Terminology and vocabulary basic to all areas of medical science, hospital services, and allied health specialties. Develops skills in correct written and oral usage of medical terms. Equivalent to HE 2210. F, S

HCA 2215 Healthcare Leadership: 3 semester hours.

This course actively teaches the relational, operational, and analytical skills key to success in health management. S

HCA 3330 Health Information Systems: 3 semester hours.

An overview of the information system methodologies and approaches in the administration and delivery of health services including data content and structure, quality, and legal issues related to collection, use, and the security of health information. Equivalent to INFO 3330. PREREQ: HCA 1115 and MGT 2216. F

HCA 3340 Healthcare Policy: 3 semester hours.

Investigate the formulation of healthcare priorities, the development of legislation, the implementation of legislative provisions through administrative action, and the modification of health policy within the context of the provision of services. Included is an examination of insurance and reimbursement practiced in today's healthcare industry, their history, current status, and their future. F

HCA 3350 Organizational Behavior in Healthcare: 3 semester hours.

Study of individual and group behavior in HCOs. Topics include social responsibility and ethics; decision making; motivation; leadership; communication; power, politics and stress; organizational culture, change and development. S

HCA 3384 Human Resource Management in Healthcare Organizations: 3 semester hours.

Create and maintain a productive health workforce by understanding the science and practice of managing the employment relationship, including human resource planning, job analysis, recruitment, selection, development, performance planning, compensation, employee relations, and the legal environment. F

GLBL 4493 Senior Thesis: 4 semester hours.

Global Studies majors will write and present a senior thesis under direction of one of the faculty affiliated with the Global Studies Program. F, S

GLBL 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HCA 4410 Management of Healthcare Provider Organizations: 3 semester hours.

Introduction to the body of knowledge and modern-day challenges related to the management of acute care and specialty hospitals, ambulatory and long term care facilities, medical group practices, and integrated healthcare delivery systems. D

HCA 4415 Physician Practice Management: 3 semester hours.

The course will provide an overview of physician practice management concepts with an emphasis on business management concepts including revenue cycle management, supply chain management, business law, human resource management and marketing. PREREQ: ACCT 2202 with a minimum grade of C- and Junior standing. S

HCA 4416 Rural Healthcare Management: 3 semester hours.

This course is designed for students who seek an understanding of the administration, organization and delivery of rural health care in the United States. This course studies the organizational structures, types of governance, and management issues of the in rural America. D

HCA 4417 Managerial Epidemiology and Population Health: 3 semester hours.

This course is the study of the distribution of diseases and pathophysiological conditions of humans and of factors which influence their occurrence. It provides an introduction to epidemiology and explains how to use epidemiological concepts and tools to improve decisions about the management of health services. This course is essential to creating a common vocabulary and approach to disease with physicians and other healthcare providers. D

HCA 4420 The Business of Healthcare: 3 semester hours.

This course provides an introduction and orientation to the business side of healthcare organizations for non-business health professions' students. Topics covered include: the fundamentals of healthcare leadership; healthcare budgeting and finance; healthcare planning and marketing; healthcare regulations, laws, and ethics; healthcare informatics; Human Resource management of healthcare organizations; healthcare quality/performance improvement; and current healthcare megatrends, including the business-related impacts of healthcare reform. PREREQ: ACCT 2202 with a minimum grade of C- and Junior standing. F

HCA 4440 Healthcare Economics and Policy: 3 semester hours.

Introduction to the economic theory, methods, and tools needed to analyze the healthcare industry, including the acute care, physician services, pharmaceutical, and healthcare insurance markets. Explores historical and current issues and trends in U.S. healthcare policy. D

HCA 4450 Special Topics in Healthcare: 1-3 semester hours.

Topics relevant to health professionals. May be repeated for up to 9 credits with different titles or content. Graded S/U. D

HCA 4453 Healthcare Finance: 3 semester hours.

The application of financial management principles, practices, and techniques used in healthcare organizations. An understanding and analysis of how these financial tools are used in decision making and how they are integrated into the healthcare organization's planning process. PREREQ: ACCT 2202 and FIN 3315 or their equivalents. S

HCA 4460 Healthcare Quality and Performance Improvement: 3 semester hours.

An in depth study of the issues, trends, tools and techniques related to patient safety, healthcare quality, and performance improvement. Course will also focus on the role of the leader in establishing and maintaining a culture of excellence and continuous improvement. D

HCA 4465 Healthcare Operations and Quality: 3 semester hours.

This capstone course in health care administration addresses the application of managerial concepts and practices within various health career environments, including acute, ambulatory, mental health, and long-term care organizations. Topics include issues/trends and best practices related to governance, leadership, management; planning and marketing; quality assessment/operations improvement; and maximizing human resources and financial performance. S

HCA 4473 Healthcare Strategic Planning and Marketing: 3 semester hours.

Introduction to basic marketing management issues as they pertain to healthcare. Current marketing trends in the health care marketplace. Consumer orientation, health care marketing plans, and strategy development. Equivalent to HE 4473. S

HCA 4475 Health Law and Bioethics: 3 semester hours.

This course develops a roadmap to facilitate risk management in the provision of healthcare services. Issues addressed include regulation and licensure, liability, selected aspects of public programs, and ethical issues regarding death, reproduction, and research. F, S

Health Educ (HE)

Courses

HE 1160 Women's Rape Aggression Defense: 1 semester hour.

Realistic self-defense tactics and techniques designed for women. Awareness, prevention, risk reduction, risk avoidance, and basic hands-on defense training. R.A.D. is not a Martial Arts program. Equivalent to PE 1160. PREREQ: Permission of Public Safety Office or sponsoring program. F, S

HE 1190 Alcohol and Drug Awareness I: 1 semester hour.

Essential elements of identification and recognition of behaviors relating to substance abuse; discussion of laws pertaining to illegal substance use; costs and programs that deal primarily with the intervention and treatment of drug and alcohol abuse. F, S, Su

HE 2200 Promoting Wellness: 3 semester hours.

A survey of the issues and topics that most affect health and wellness. Particular emphasis is placed on the intelligent self-direction of health behaviors. Topics address individual health assessments and decision-making skills. F, S, Su

HE 2201 Selected Topics in Health Education: 1 semester hour.

Topical courses emphasizing the effects of individual lifestyle choices on health. Topics may include stress and emotional health, consumer health, and trust and self-esteem. May be repeated for up to 3 credits. F, S

HE 2210 Medical Terminology and Communication: 2 semester hours.

Terminology and vocabulary basic to all areas of medical science, hospital services, and allied health specialties. Develops skills in correct written and oral usage of medical terms. Equivalent to HCA 2210. F, S

HE 2211 Health Education Methods Elementary: 1 semester hour.

A study of subject content of the health education program with emphasis on methods and materials to be used by the elementary classroom teacher. F, D

HCA 4480 Long-Term Care Management: 3 semester hours.

A study of long-term care management across the continuum of care. The course defines the various segments of the long-term care system, describes how the system developed, compares it to an ideal system, and projects future trends. Incorporates applicable aspects of current laws and legislation and changes in care delivery. The course includes the unique requirements of leadership and culture in long-term care settings. PREREQ: HCA 1115. F

HCA 4481 Independent Problems in Health Services Administration: 1-3 semester hours.

Student selects an area of special interest through independent study. A report will be required giving results. May be repeated for up to 6 elective credits. PREREQ: HCA major. D

HCA 4489 Healthcare Information Systems Practicum: 3 semester hours.

8 hours per week under the direction of the Department of Family Medicine, with a term project. NOTE: Some facilities may require a background check. When required, this check will be conducted at the student's expense. F, S, Su

HCA 4495 Administrative Internship: 4 semester hours.

An internship is required for successful completion of this program. During the internship experience, students work in a health or human services organization, performing various duties and being exposed to various aspects of managerial careers in health services management. PREREQ: HCA major or graduate status. F, S, Su

HCA 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HE 2221 Introduction to Community and Public Health: 3 semester hours.

Concepts essential to understanding the discipline: competencies, ethics, health education theories and philosophies, and career opportunities for professional health educators in school and community settings. F, S

HE 2230 Introduction to Addictions: 3 semester hours.

Four primary aspects of addiction: the physiology of drugs of abuse and chemical addiction, the assessment and diagnosis of chemical dependency, the treatment of addictive disorders, and topics focused on special populations. D

HE 2232 Helping Theories: 3 semester hours.

Provides an introduction to the essential components and techniques of addiction counseling. Students will learn the basic facilitation model, group techniques, counseling theories, issues faced by beginning counselors, and characteristics of the effective counselor. D

HE 2233 Harmful and Illicit Substances: 3 semester hours.

This course is designed to introduce students to drug classification systems and specific drugs within each classification. The psychological and physical effects, signs and symptoms of use, abuse, dependency, overdose, and withdrawal. D

HE 2234 Blood Borne Illness: 1 semester hour.

Provides a basic understanding of blood borne pathogens/infectious diseases within an addictions framework. Promotes competency and ethical responsibility in assessing client needs in regard to blood borne pathogens/infectious diseases. D

HE 2235 Chemical Dependency and the Family: 3 semester hours.

Provides an overview of functional and dysfunctional families, the impact of chemical dependency on individual and family systems; and treatment modalities and appropriate referral resources. D

HE 2270 Peer Education in Health: 2 semester hours.

Covers methods and techniques of presenting health information to college students. Interview required with instructor prior to enrolling. May be repeated to 4 credits. PREREQ: Approval of instructor. F, S

HE 2287 Healthful Cooking: 2 semester hours.

Nutritional components of food, food preparation techniques, and recipe selection and development, all from a health perspective. Emphasis on food products that are both healthful and flavorful. PREREQ: NTD 1139 or NTD 2239. S

HE 2290 Alcohol and Drug Awareness II: 1 semester hour.

Case studies of active drug users and recovering addicts; in-depth discussion of the family dynamics of drug/alcohol abusers; medical aspects of chemical dependency. F, S, Su

HE 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HE 3310 Screening and Assessment of Substance Abuse: 3 semester hours.

Provides a basic understanding of appraisal techniques within an addictions framework. Promotes competency and ethical responsibility in assessing clients. Enhances the ability to assess client's needs based on clinical knowledge and instrumentation. D

HE 3311 Case Management of Substance Abuse: 3 semester hours.

Provides a basic understanding of case management philosophy and basic case management skills within an addictions framework. Promotes competency and ethical responsibilities. PREREQ: Permission of instructor. D

HE 3312 Ethics for the Addictions Counselor: 3 semester hours.

Provides information regarding ethical and legal issues in the field of chemical dependency counseling. Topics include values and helping relationships, client's rights and counselor responsibilities. D

HE 3313 Practicum for the Chemical Dependency Counselor: 3 semester hours.

Practical experience in a field based setting congruent with the core functions of a chemical dependency counselor including: assessment, counseling, groups, education, and professional responsibility. D

HE 3314 Group Skills for Addiction Counselors: 3 semester hours.

Introduces students to group theory and practice as a treatment modality in counseling clients with chemical dependency issues. D

HE 3340 Fitness and Wellness Programs: 3 semester hours.

A study of the theory, development, and application of components necessary for providing fitness and wellness programs in a variety of settings. PREREQ: HE 2200 and HE 2221. S, D

HE 3340L Fitness and Wellness Programs Laboratory: 0 semester hours.

Assignments to apply principles from HE 3340. COREQ: HE 3340. F

HE 3342 Stress and Emotional Health: 3 semester hours.

Stress response, causes of stress, and stress management techniques/strategies. Effect of the mind on the body relative to various disease states. Includes the connection between spirituality and health; and emotional health-related topics such as anger, depression and stress, and sleep deprivation. F

HE 3383 Epidemiology: 3 semester hours.

The study of the distribution, frequency and determinants of diseases and injuries in human populations with the overall goal of implementing prevention and control programs. PREREQ: MATH 1153 or MGT 2216. F

HE 4401 Issues in Health and Wellness: 1-3 semester hours.

Contemporary health and wellness issues emphasizing education interventions and application. Topics may include: death and dying, computer technology in health, healthy aging, motivation, emergency preparedness, alternative and complementary medicine, international health. May be repeated for up to 6 credits with different content. F, S, Su

HE 4405 Leadership and Policy: 3 semester hours.

Course will introduce and apply public health leadership concepts including: principles of leadership and management, policy, team building, ethics and professionalism, strategic planning, networking, budgeting and finance, and continued professional development. S

HE 4410 Health Behavior Change Theory and Application: 3 semester hours.

Provides a basic understanding of the social, emotional, and lifestyle factors related to health behavior. Strategies designed to identify barriers to behavior and to enhance the health of selected populations are examined. PREREQ: Community and Public Health major, Junior standing, HE 2200, and HE 2221. F, D

HE 4420 Health Program Planning and Implementation: 3 semester hours.

Provides both a theoretical framework for and skill development in organizing, planning, and implementing community health interventions. Key topics include: planning models, assessing community needs, presentation strategies, and budgeting. PREREQ or COREQ: HE 4410. F, D

HE 4425 Patient Education Skills: 2 semester hours.

Foundations and application of organizational and communication skills which promote a positive atmosphere for patient education in clinical and worksite settings. S, D

HE 4430 Curriculum and Methods in Health Education: 3 semester hours.

Curriculum planning, implementation, methodology, and evaluative procedures utilized in the school health education setting. Emphasis will be placed on the integration of content and practical experiences. PREREQ: Permission of instructor. S

HE 4432 Community and Public Health: 3 semester hours.

Aspects of the community that relate to health; identification and analysis of community and public health programs; organizational pattern and functions of voluntary and governmental health agencies; organizing the community for health action; and coordination of community and public health programs. S, D

HE 4435 Health Program Evaluation and Research: 3 semester hours.

The application of research and evaluation models for decision-making program and policy development of community health education interventions. Focus on the individual, family, and social network levels of practice. PREREQ: HE 4420. S, D

HE 4442 Environmental Health in Community and Public Health: 3 semester hours.

Study of a variety of issues related to protecting and preserving the environment with an emphasis on school and community educational programs. S, D

HE 4443 Substance Abuse in Community and Public Health: 3 semester hours.

Study of the physical, psychological, sociological, and environmental factors related to drug use with emphasis on school and community prevention programs. F, D

HE 4444 Human Diseases in Community and Public Health: 3 semester hours.

Address the underlying science of human health and disease including opportunities for promoting and protecting community health across the life course, through individual and community-level interventions and campaigns.

HE 4445 Human Sexuality in Community and Public Health: 3 semester hours.

Study of the multifaceted nature of human sexuality with an emphasis on school and community-level educational programs. S, D

HE 4446 Communication Strategies in Community and Public Health: 3 semester hours.

Student will gain experience in the strategic use of communication and marketing tools to develop, implement, and evaluate communication programs that help people make sound health decisions and effectively manage health behaviors. Students will gain experience using all communication strategies including written and digital tools such as social media, mobile and mass media applications. S

HE 4473 Healthcare Strategic Planning and Marketing: 3 semester hours.

Current marketing trends in the health care marketplace. Consumer orientation; health care marketing plans, strategy development, basic public health and free-enterprise marketing principles. Strategies to promote social change and the importance of core human values of freedom, autonomy, control, and fairness. Equivalent to HCA 4473. S, D

HE 4485 Independent Problems in Community and Public Health: 1-3 semester hours.

Individual work under staff guidance. Field and/or library research on specific health education problems of interest to majors and minors. PREREQ: Permission of instructor. May be repeated for up to 6 credits. F, S, Su

HE 4490 Practicum in Community and Public Health: 4 semester hours.

Practical experience in a field based setting, congruent with student's employment goals. Required for community/worksite health option students. Graded S/U. PREREQ: Senior standing in Community and Public Health and permission of instructor. F, S, Su

HE 4491 Health Education Workshop: 1-3 semester hours.

A critical analysis of one or more areas of health education. Limited enrollment. PREREQ: Permission of instructor. F, S, Su

HE 4498 Professional Education Development: 1-3 semester hours.

A course for the practicing health educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. Graded S/U. D

HE 4498P Professional Education Development: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

HE 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Health Information Tech (HIT)

Courses

HIT 0201 Supervised Professional Practice I: 2 semester hours.

Directed clinical practice in various health information sites under the preceptorship of a practicing professional for 8 hours per week for eight weeks. F, S

HIT 0202 Health Information I: 4 semester hours.

Introduction to the roles and responsibilities of the health information field. Study of the origin, use, content, format, record retention, numbering and filing systems of health information records. Study of computer applications found in health information. Accreditation and licensing standards along with state and federal laws pertaining to health information. F, S

HIT 0203 Health Statistics and Quality Improvement: 3 semester hours.

The collection, calculation and presentation of routine health data in conjunction with the assessment, monitoring, evaluation and improvement of health care. PREREQ: MATH 1123, HIT 0201, and HIT 0202. F, S

HIT 0204 Health Information II: 4 semester hours.

Theory, practice and skills in managing health information and personnel. F, S

HIT 0205 ICD 10 CM Coding: 3 semester hours.

Principles and application of diagnosis coding for statistical and reimbursement purposes utilizing International Classification of Disease-Clinically Modified. PREREQ: HO 0106, BIOL 1101, BIOL 1101L; and HO 0111 or BIOL 3301 and BIOL 3302. F, S

HIT 0206 ICD 10 PCS Coding: 3 semester hours.

Principles and application of procedural coding for statistical and reimbursement purposes utilizing International Classification of Disease Procedure Classification System. PREREQ: HO 0106, BIOL 1101, BIOL 1101L; and HO 0111 or BIOL 3301 and BIOL 3302. F, S

HIT 0207 Supervised Professional Practice II: 4 semester hours.

Directed clinical practice in a health information department under the preceptorship of a practicing professional for 24 hours per week for eight weeks. COREQ: HIT 0203, HIT 0204, and HIT 0213. PREREQ: HIT 0201, HIT 0202, HIT 0205, HIT 0206 and HIT 0209. F, S

HIT 0209 CPT Coding: 3 semester hours.

Principles and application of coding for statistical and reimbursement purposes utilizing Physicians' Current Procedural Terminology in conjunction with documentation standards. PREREQ: HO 0106, BIOL 1101, BIOL 1101L; and HO 0111 or BIOL 3301 and BIOL 3302. F, S

HIT 0213 Advanced Coding and Reimbursement: 4 semester hours.

Practical application of ICD and CPT coding utilizing software and actual patient records. Application of coded data in payment and reimbursement systems, including the basic instructions for filing various types of health care claims and accounts receivable. Students will use medical software to perform competency-based simulations. PREREQ: HIT 0205, HIT 0206, and HIT 0209. F, S

HIT 0214 Coding Practicum: 4 semester hours.

Directed clinical coding practice in a clinical coding environment under the preceptorship of a practicing professional. PREREQ: HIT 0205, HIT 0206, HIT 0213. F, S

HIT 0215 Introduction to Reimbursement: 2 semester hours.

Introduction to processing health insurance claims through medical insurance, payer requirements, state and federal regulations, abstracting of source documents, accurate completion of claims, and coding of diagnoses and procedures/services. Utilizes national diagnosis and procedure coding systems and claims processing software. PREREQ: HIT 0202. F, S

HIT 0220 Informatics Technology I: 3 semester hours.

Introduction to information systems and their importance in the health care industry. Emphasis on information technology, information system characteristics and use. The study of processes supported in health informatics and information to include the electronic health record and the management of information and information systems in the inpatient and outpatient health care settings. F, S

HIT 0224 Informatics Technology II: 3 semester hours.

Data analysis and decision support for health informatics. Database concepts, project management, network concepts, system analysis and design. Content of health records, health informatics and information standards as per regulatory agencies and accreditation. PREREQ: HIT 0220. F, S

HIT 0240 Medical Coding Practicum: 4 semester hours.

Directed clinical coding and reimbursement practice under the preceptorship of a practicing professional for 40 hours a week for four weeks; also includes the successful completion of HIT/HIM projects as assigned. PREREQ: HO 0106, HO 0107, HO 0208, HO 0209, HO 0111, HIT 0202, HIT 0205, HIT 0206, HIT 0209, HIT 0215. PRE-OR-COREQ: HIT 0213. F, S

HIT 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

HIT 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

HIT 0299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Health Occupations (HO)

Courses

HO 0105 Introduction to Allied Health Careers: 2 semester hours.

Introduction to allied health careers emphasizing the interrelationships and the team approach to health care. F, S

HO 0106 Medical Terminology: 2 semester hours.

Body systems approach to theory and application of medical terms including anatomical, pathological, surgical and diagnostic as well as appropriate abbreviations. Equivalent to HE/HCA 2210 F, S

HO 0107 Medical Law and Ethics: 3 semester hours.

Principles and application of law to health care organizations and personnel, standards of care and liability; covers tort, contract and statutory law. F, S

HO 0108 Basic Anatomy: 2 semester hours.

The study of the structure and organization of the body and its parts. F, S

HO 0110 Over the Counter and Herbal Medications: 2 semester hours.

An overview of the significance of over-the-counter (OTC) and herbal drug therapy in our society. The role of the pharmacy technician in selling and providing information about OTC and herbal therapy will be reviewed. Therapeutic drug classifications, indications, dosage forms, major ingredients, common side effects, and significant drug interactions will be covered for OTC drugs. For herbal medications, students will learn to associate the names of herbal medications with common uses, recognize potential adverse effects, and be aware of potential drug interactions between herbs and conventional medication. Federal regulation of OTC and herbal medications will also be reviewed. F

HO 0111 Introduction to Anatomy and Physiology: 4 semester hours.

An introductory study of the normal structure and function of body cells, tissues, organs, and systems. F, S, SU

HO 0208 Introduction to Pathology: 3 semester hours.

An introductory course in the concepts of pathology. Includes causes, common mechanisms, and anatomic or functional manifestations of human disease. PREREQ: HO 0111 or BIOL 3301 and BIOL 3301L and BIOL 3302 and BIOL 3302L. F, S

HO 0209 Principles of Drugs and Their Uses: 3 semester hours.

Introduction to the study of drugs, their sources, appearance, actions, uses, and basic principles of therapeutic drug administration. Classification of drug safety issues, sources of drug information, legislation related to drugs, and drug references will be included. PREREQ: HO 0111 or BIOL 3301 and BIOL 3301L and BIOL 3302 and BIOL 3302L. F, S

HO 0299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Health Physics (HPHY)

Courses

HPHY 2217 RCT Internship: 3 semester hours.

Structured Internship. An optional experience taken as a class the summer prior to the start of the program. PREREQ: Acceptance into the program and permission of the program director. Su

HPHY 2218 Fundamentals of Radiation Protection Physics: 3 semester hours.

Atomic structure, nuclear structure, fission and fusion, radioactive decay, types of radiation, decay schemes, decay kinetics, interaction of radiation with matter, inverse square, attenuation, shielding, sources of radiation, reactors; accelerators, X-ray machines, units and terminology. F

HPHY 2219 RCT Internship II: 3 semester hours.

Structured Internship. A required class taken the summer between the first and second years of the program. PREREQ: Acceptance into the program and permission of the program director. Su

HPHY 2225 Radiation Protection Instrumentation: 3 semester hours.

Gas filled detectors: theory of operation, field applications, calibration and maintenance. Standard laboratory radiation detection instrumentation including solid state detectors, liquid scintillation detectors, scintillators, TLD and film dosimetry, and spectroscopy techniques. PREREQ: HPHY 2218. F

HPHY 2226 Radiation Protection I: 3 semester hours.

Principles of radiation protection; evaluating internal and external exposures and controls, survey, sampling and inspections, analytical techniques and emergency preparedness. PREREQ: HPHY 2218. S

HPHY 2227 Radiation Protection II: 3 semester hours.

Personnel dosimetry, prescribed dosimetry and radiation equipment, radiation protection dosimetry, procedures and programs (ALARA), industrial ventilation, PPE, contamination control, shielding, hazard evaluation primer on internal dosimetry and bioassay techniques. PREREQ: HPHY 2218. F

HPHY 2228 Health Physics Regulations: 3 semester hours.

Reviewing 10 CFR 19, 20, 30, 35, 835 and portions of 49 CFR dealing with shipment of Radioactive Materials and acquainting students with NCRP, NUREG, REG Guides, ICRP, etc. PREREQ: HPHY 2218. S

HPHY 3300 Medical Electronics: 2 semester hours.

A lecture-laboratory course covering circuit theory, qualitative theory of active devices and their applications to instrumentation. Laboratory work will be done with basic test instruments. Primarily for students in the allied health fields. PREREQ or COREQ: HPHY 3321. S

HPHY 3307 Radiobiology: 2 semester hours.

Survey of the effects of ionizing radiation on living matter at the sub cellular, cellular, and organismal levels. Equivalent to BIOL 3307. PREREQ: BIOL 1101 and one of the following: PHYS 1100, PHYS 1111, PHYS 2211, or HPHY 3321. S

HPHY 3321 Radiologic Physics: 2 semester hours.

Basic physics of x-ray production and the interaction of x-rays with matter. Includes topics in medical imaging. Available to juniors in Radiographic Science. PREREQ: PHYS 1100. S

HPHY 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HPHY 4411 Accelerator Health Physics: 3 semester hours.

Fundamentals of particle accelerator design and operation. Examination of the potential radiation environment associated with accelerators and health and safety issues of their operation. PREREQ: Senior standing in health physics or permission of instructor. D

HPHY 4412 Environmental Health Physics: 3 semester hours.

State-of-the-art applied mathematical techniques for estimating the release, transport, and fate of contaminants in multi-media environmental pathways (air, ground water, terrestrial). Both radiological and non-radiological contaminants will be addressed, with emphasis on radiological contaminants. PREREQ: Permission of instructor. Se

HPHY 4413 Fundamentals of Industrial Hygiene: 3 semester hours.

Overview on the recognition, evaluation, and control of hazards arising from physical agents in the occupational environment. The exposure consequences associated with agents of major occupational health concerns are considered. PREREQ: Permission of instructor. Se

HPHY 4416 Introduction to Nuclear Measurements: 3 semester hours.

Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1111 and PHYS 1111 and PHYS 1113 or PHYS 2211 and PHYS 2213. S

HPHY 4416L Radiation Detection and Measurement Lab: 0 semester hours.

Laboratory course emphasizing practical measurement techniques in nuclear physics.

HPHY 4417 Industrial Ventilation and Aerosol Physics: 3 semester hours.

This course focuses on two distinct subject areas: an elaboration on the details of the ACGIH method of local exhaust-system design, and a study of applied aerosol physics based upon trajectory analysis. PREREQ: Permission of instructor. Se

HPHY 4418 Nonionizing Radiation Protection: 3 semester hours.

Occupational safety and health issues of human exposure to nonionizing radiation. Topics include health concerns and safety strategies developed for extremely low frequency, microwave, radio-frequency, ultraviolet, infrared, laser radiation, and sound-waves. PREREQ: Permission of instructor. Se

HPHY 4419 Radiological Emergency Planning: 3 semester hours.

Radiological emergency planning for facilities ranging from reactors and other major nuclear facilities to transportation accidents and smaller-scale nuclear accidents. Topics include planning, co-ordination, "exercises", exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. Se

HPHY 4420 Reactor Health Physics: 3 semester hours.

Introduction to reactor physics; nuances peculiar to reactor health physics; reactor designs. Critiques of exposure pathways, accidents, decommissioning, contamination control, and emergency planning examine radiation safety approaches within the nuclear fuel cycle. PREREQ: Permission of instructor. Se

HPHY 4431 Radiation Physics I: 3 semester hours.

Atomic and nuclear structure, series and differential-equation descriptions of radioactive decay, physical theory of the interaction of radiation with matter suitable for the discipline of Health Physics. PREREQ: Permission of instructor. F

HPHY 4432 Radiation Physics II: 3 semester hours.

Continuation of HPHY 4431 considering dosimetric quantities/units, theory and technology of radiation detection and measurement, and radiobiology important to an advanced understanding of radiation protection. PREREQ: HPHY 4431 and permission of instructor. S

HPHY 4433 External Dosimetry: 3 semester hours.

Lecture course emphasizing external radiation protection including study of point kernel techniques, monte carlo modeling, and NCRP-49 methods. Also discussed are external dosimetry measurement techniques. PREREQ: HPHY 4432 or permission of instructor. F

HPHY 4434 Internal Dosimetry: 3 semester hours.

A lecture course emphasizing internal radiation protection including studies of ICRP-2, ICRP-26&30, ICRP-60&66, and MIRD methods of internal dosimetry. PREREQ: HPHY 4433 or permission of instructor. S

HPHY 4455 Topics in Health Physics I: 2 semester hours.

A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: HPHY 4432 or permission of instructor. F

HPHY 4456 Topics in Health Physics II: 2 semester hours.

A continuation of HPHY 4455. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: HPHY 4432 or permission of instructor. S

HPHY 4460 Special Problems in Health Physics: 1-6 semester hours.

Course covering special problems and topics in health physics. Specific, evaluated undergraduate-level activities and/or performances are identified in the course syllabus. May be repeated. May be graded S/U. PREREQ: Permission of instructor. F, S

HPHY 4480 Health Physics Capstone Course: 3 semester hours.

Senior project involving development of an abstract, report, poster and oral presentation with synthesis of the many aspects of the undergraduate Health Physics education into a unified focused endpoint. PREREQ: Permission of instructor. F, S

HPHY 4488 Advanced Radiobiology: 3 semester hours.

An advanced-level class covering aspects of molecular radiobiology, teratogenesis, oncogenesis, and acute radiation illnesses. It also considers nonstochastic radiation effects and the epidemiology of radiation exposures. Equivalent to BIOL 4488. PREREQ: Permission of instructor. AF

History (HIST)

Courses

HIST 1100 History in Film: 3 semester hours.

Frameworks for analysis of the interpretation of the past in film. Involves comparative, critical evaluation of primary source documents and historical studies in relation to film, including documentaries. May be theme- or topics-based. Satisfies Objective 7 of the General Education Requirements. D

HIST 1101 World History I: 3 semester hours.

Survey of pre-modern world history. Human history from ancient times to c. 1500. Partially satisfies Objective 6 of the General Education Requirements. R1

HIST 1102 World History II: 3 semester hours.

Survey of modern world history. Human history from 1500 to present. Partially satisfies Objective 6 of the General Education Requirements. R1

HIST 1105 Foundations of Europe: 3 semester hours.

History of Europe as a world region from ancient times to 1700. Partially satisfies Objective 6 of the General Education Requirements. R1

HIST 1106 Modern Europe: 3 semester hours.

History of Europe as a world region, from 1700 to the present. Partially satisfies Objective 6 of the General Education Requirements. R1

HIST 1111 United States History I: 3 semester hours.

Colonial origins and achievement of independence, constitutional government, national boundaries, and the preservation of the union. Partially satisfies Objective 6 of the General Education Requirements. F, S

HIST 1112 United States History II: 3 semester hours.

The domestic and international development of a plural, industrial society. Partially satisfies Objective 6 of the General Education Requirements. F, S

HIST 1118 US History and Culture: 3 semester hours.

An introduction to U.S. history and culture, including cultural change over time. Focuses on a significant historical theme, which varies by course section. Satisfies Objective 7 of the General Education Requirements. F, S, Su

HIST 1120 Themes in World History: 3 semester hours.

Thematic approach to major trends and patterns in world history. Moving beyond the study of individual countries, cultures, and regions, students critically analyze a specific historical theme, such as migration, trade, or the spread of technology. Satisfies Objective 7 of the General Education Requirements. Repeatable with different topics. F

HIST 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HPHY 4490 ABHP Review: 3 semester hours.

A course for practical professionals aimed at the development and improvement of skills. May not be applied to undergraduate or graduate degrees. May be repeated. May be graded S/U. S

HPHY 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HIST 2201 Women In U.S. History: 3 semester hours.

A survey of the changing roles of women in U.S. history and an analysis of historical change through the perspective of gender. Satisfies Objective 9 of the General Education Requirements. R1

HIST 2221 Ancient World: 3 semester hours.

History and archaeology of social, political, economic, and cultural developments in the ancient world. Rotating topics include Egypt, the Near East, Greece, Rome, and Central Asia. D

HIST 2241 History of World Religions: 3 semester hours.

Interdisciplinary survey of world religions with emphasis on examining and comparing the histories of the world's major religious traditions. Emphasizes analysis of primary texts, including religious texts, and art in relation to faith traditions and ideologies. D

HIST 2251 Latin American History and Culture: 3 semester hours.

A transnational history of Latin America that covers Columbus' arrival in the Caribbean up to the present day. Emphasizes social, cultural, political, and environmental developments of individual countries and the region as a whole. Satisfies Objective 9 of the General Education Requirements. D

HIST 2252 East Asian History: 3 semester hours.

The origins and growth of the distinctive cultures of China and Japan; their encounters with the West and different responses to Westernization, and their roles in the modern world. Satisfies Objective 9 of the General Education Requirements. D

HIST 2254 Middle East History and Culture: 3 semester hours.

History of the Middle East as a world region from the emergence of Islam to 1500. Emphasis on cultures, peoples, and traditions associated with the Middle East and Islam, including the development and influence of social, political, and economic trends and institutions. Satisfies Objective 9 of the General Education Requirements. D

HIST 2255 African History and Culture: 3 semester hours.

An introductory survey of Africa covering traditional political systems and culture, the impact of Christianity and Islam, the economic and political intrusion of Europe, and the development of economic and political crises in contemporary Africa. Satisfies Objective 9 of the General Education Requirements. D

HIST 2258 Native American History: 3 semester hours.

Assesses diversity of North American natives, their life and thought; European impact; federal policy; and natives' response to continual cultural and physical assault. Equivalent to ANTH 2258. D

HIST 2291 The Historian's Craft: 3 semester hours.

Develops an interdisciplinary approach to historical research methods and trains students in locating and evaluating sources and in developing research papers using those sources. Open to non-majors. Required prerequisite for HIST 4491. Satisfies Objective 8 of the General Education Requirements. F

HIST 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HIST 3307 Early North America: 3 semester hours.

A study of American cultures prior to the arrival of Europeans, of the variety of transplanted cultures in America and their changes over time. Special emphasis on the founding of the United States and the establishment of government under the Constitution. R2

HIST 3308 Industrialization and Reform in the United States: 3 semester hours.

1820-1932. The emergence of industrialization in the early 19th century, the impact of the Civil War on industrialization, and industrialization's attendant political, social, cultural, and economic reforms and changes. Special attention paid to abolitionism, postwar reconstruction, and the Great Migration of African Americans to the industrialized North. R2

HIST 3309 Modern United States: 3 semester hours.

An historical examination of the United States from the 1930s to the present, focusing on the Great Depression, New Deal, World War II, the U.S. rise to global power, its maturation as a mass society, the rise and decline of liberalism and conservatism, the Civil Rights Movement, the Vietnam War, the changing nature of citizenship and culture, and the end of the Cold War. R2

HIST 3318 History of Christianity: 3 semester hours.

This course will survey the history of Christianity from its origins to its various expressions in the modern world. Special attention will be given to the initial formation of Christian traditions, the encounter of Christianity with intellectual and social trends in western history, and the periodic movements of reform which sought to refashion Christian life and institutions. D

HIST 3322 Religious Reformation and Conflict: 3 semester hours.

A comparative study of the development of new faith communities and the religious violence which shattered the unity of Western Christianity, 1300-1650. D

HIST 3323 French Revolution and the Napoleonic Legacy: 3 semester hours.

An examination of the origins, course, and legacy of the French Revolution and its European and global impact and legacy. D

HIST 3325 Early Modern Europe: 3 semester hours.

Early Modern Europe examines the history of European politics, religion, culture, and interactions with the rest of the world from the Black Death to the French Revolution. Special focus on European global expansion, the development of capitalism, royal absolutism, the Enlightenment, and the Scientific Revolution. D

HIST 3326 Twentieth Century Europe: 3 semester hours.

Europe from World War I through the end of the century, including the world wars, the rise of communism, fascism, and totalitarianism, the Holocaust, the 1980s revolutions, and the uniting of Europe in the European Union. D

HIST 3327 World War I and Its Legacy: 3 semester hours.

This course explores the First World War thematically and examines social, cultural, economic, and political issues transnationally. It considers the pre- and post-war periods, the war's colonial impact, remembrance and commemoration, and the conflict's enduring historical lessons. D

HIST 3350 Spain in the Early Modern World: 3 semester hours.

Iberian History and imperial expansion 1450-1700, including nation-state formation and overseas expansion. D

HIST 3354 Modern Middle East: 3 semester hours.

History of the modern Middle East, emphasizing political, social, and economic trends in the region. Topics may include imperialism, nationalism, transnationalism, constitutionalism, secularism, and state building. D

HIST 3355 Slavery in History: 3 semester hours.

History of slavery. Topics include slavery in global, comparative, transnational, or national contexts. D

HIST 3364 Public History Internship: 1-6 semester hours.

Faculty-supervised placement in historical societies, museums, archives, government agencies, municipal departments, libraries or other institutions engaged in historical preservation, dissemination, and/or research. May be repeated for a maximum of 6 credits. D

HIST 3376 Foodways in History: 3 semester hours.

An interdisciplinary course on culinary and environmental history. This course emphasizes global food exchanges and their influence on food practices and consumption. May be period, theme-, or topics-based. Coursework may include the preparation and analysis of historical recipes. D

HIST 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

HIST 4405 Problems in History: 3 semester hours.

A thorough consideration of historical problems, particularly from a comparative perspective. Designed to give deeper insight into problems, issues, and topics which are treated more generally in other courses. May be repeated with different content. D

HIST 4411 Introduction to Museum Studies: 2 semester hours.

History, philosophy, purposes, organization and administration of museums. Practical work in collections management and museum interpretation. Equivalent to MUSE 4411. F

HIST 4418 United States History for Teachers: 3 semester hours.

U.S. history from indigenous cultures through modern America. Based on Idaho Department of Education Standards for high school students. F, S

HIST 4420 Topics in U.S. History: 3 semester hours.

Examines topics and themes in U.S. history not covered in other courses. Repeatable with different topics. D

HIST 4421 Federal Indian Relations: 3 semester hours.

Legal-historical examination of the relationship between North American tribal peoples and the U.S. federal government between 1750 and the present. Special emphasis will be placed on Indian removal, assimilation policy, treaty negotiation, the Dawes Severalty Act, education policy, Indian reorganization policy, and termination. R2

HIST 4423 Idaho History: 3 semester hours.

A survey of the social, cultural, environmental, and political history of Idaho from pre-contact indigenous cultures to the present, emphasizing Idaho's relation to other states and regions in the West. F, S, Su

HIST 4425 Women in the North American West: 3 semester hours.

Comparative examination of the varied experiences of women in the North American West. Analyzes perceptions of women and women's views of themselves, women's activism, and women's cultural activities. Places special emphasis on the use of non-textual historical sources in uncovering the past lives of North American western women. D

HIST 4427 American West: 3 semester hours.

History of the North American West from pre-contact indigenous cultures to the present, with an emphasis on exploration, settlement, ethnic groups, borderlands, environment, federal policy, and cultural depictions. R2

HIST 4429 Foreign Relations since 1900: 3 semester hours.

An introduction to the history of international relations in the twentieth century. This course emphasizes the impact of wars on various peoples and cultures, anti-colonialism and the rise of the so-called 'Third World,' and the processes of political, cultural and economic 'globalization.' R2

HIST 4430 Global Environmental History: 3 semester hours.

Comparative examinations of historical interactions between humans and environmental factors in various time periods and regions throughout the world, and an assessment of their impacts on historical change. R2

HIST 4431 Topics in Global History: 3 semester hours.

Examines from a transregional or transnational perspective topics and themes in global history not covered in the survey. Topics may include revolutions, culture and art, imperialism, and approaches to world history. Repeatable with different topics. D

HIST 4432 U.S. Environmental History: 3 semester hours.

Cultural, social, and political analysis of historical interactions between humans and environmental factors in North America. Includes assessment of the roles of conservation, energy, resource use, land management, urban and rural development, disease, and food. R2

HIST 4433 History of Energy: 3 semester hours.

Considers the histories of energy sources--including biomass, fossil fuels, nuclear, and renewables--as driving forces of change in culture, society, and politics. Examines technological innovation as well as the ways people resisted, embraced, and adapted to the changing role of energy in their everyday lives. D

HIST 4435 History of Colonialism: 3 semester hours.

Thematic study of colonialism as a historical phenomenon. Topics may include: settler colonies, anti-colonial movements, cross-cultural interaction, post-colonialism, and borderlands. D

HIST 4437 Families in Former Times: 3 semester hours.

History of the family, marriage patterns, domestic lives. May be theme- or topics-based. Examines changes in the relationships within families and the changing role of the family in society. Repeatable with different topics. D

HIST 4439 Women in World History: 3 semester hours.

Interdisciplinary study of the history of women and women's rights in different world regions, involving the social constructs of gender, race, and class. S

HIST 4440 History of Revolutions: 3 semester hours.

Explores revolutions in their historical contexts. Themes may include liberal democratic, constitutional, communist, and anti-colonial revolutions. Historical period and global region may vary. D

HIST 4443 Topics in European History: 3 semester hours.

An examination of periods or topics in European social, cultural, and economic history and their transnational or global impacts. Repeatable with different topics. D

HIST 4445 Modern Ireland: 3 semester hours.

Major events in Irish history, from the eighteenth to the twenty-first century, focusing on Ireland's political, economic, and cultural development. Explores Ireland's relationship with Great Britain and Europe, themes of nationalism and Unionism, rebellions, the Northern Ireland Troubles, and the global Irish Diaspora. R2

HIST 4446 Topics in Ancient History and Culture: 3 semester hours.

Examines themes or topics in Ancient History not covered in other courses. Repeatable with different topics. D

HIST 4448 Topics in Medieval History and Culture: 3 semester hours.

Examines themes or topics in Medieval history and culture in greater depth or not covered in other courses. Repeatable with different topics. D

HIST 4451 Topics in Latin American History and Culture: 3 semester hours.

Examines topics and themes in Latin American history and culture not covered in the survey. Topics may include Latin American environmental history, indigenous movements, revolutions, culture and art, and cultural movements in Latin America. Repeatable with different topics. D

HIST 4452 Topics in Asian History and Culture: 3 semester hours.

Examines topics and themes in Asian history and culture not covered in other classes. Repeatable with different topics. D

HIST 4454 Topics in Middle East History and Culture: 3 semester hours.

Examines topics and themes in Middle East history and culture not covered in other classes. Topics may include Iraq and Iran, intellectual history of Islam, early modern empires. Repeatable with different topics. D

HIST 4455 Topics in African History and Culture: 3 semester hours.

Examines topics and themes in African history and culture not covered in other classes. Topics might include wars and revolutions, African intellectuals, or colonialism. Repeatable with different topics. D

HIST 4461 Independent Study United States: 1-3 semester hours.

Selected readings in areas and periods not covered by the regular curriculum offerings. PREREQ: Previous upper-division course work in the subject area with a minimum grade of A-; GPA of 3.5 in all history courses; permission of the instructor; and approval by the department chair. D

HIST 4462 Independent Study Europe: 1-3 semester hours.

Selected readings in areas and periods not covered by the regular curriculum offerings. PREREQ: Previous upper-division course work in the subject area with a minimum grade of A-; GPA of 3.5 in all history courses; permission of the instructor; and approval by the department chair. D

HIST 4463 Independent Study World Regions: 1-3 semester hours.

Selected readings in areas and periods not covered by the regular curriculum offerings. PREREQ: Previous upper-division course work in the subject area with a minimum grade of A-; GPA of 3.5 in all history courses; permission of the instructor; and approval by the department chair. D

HIST 4465 US Political History: 3 semester hours.

Study of the political history of the United States involving a discussion of theories of popular voting behavior, critical elections, and political party systems. Equivalent to POLS 4465. R2

HIST 4471 Historical Geography of Idaho: 3 semester hours.

Influences of geography and geology on Idaho's economic, political and cultural history. May be team taught and include field trips, discussion sections. Equivalent to GEOL 4471 and POLS 4471. D

HIST 4474 Islam in the Modern World: 3 semester hours.

This course covers Islamic trends and movements in a global setting from the eighteenth century to the present. Islam will be considered in a wide range of national and transnational contexts with special attention on the interaction between Islam, society, and politics. Repeatable with different topics. D

HIST 4478 History of Empires: 3 semester hours.

Thematic study of one or more empire in world history. May include the study of empires and imperialism in the modern and/or pre-modern periods. D

HIST 4479 History of Disease, Medicine, and Society: 3 semester hours.

Topics or theme-based course in the history of medicine, disease, and public health, and the associated perceptions, treatments, policies, and effects on society both within the medical community and by the public at large in Europe and the Americas since the 16th century. D

HIST 4486 History Field Seminar: 3-9 semester hours.

Combines historical study with experiential learning involving intensive on-location study or multiple site or archive visits. Repeatable with different topics. PREREQ: Permission of instructor. D

HIST 4491 History Seminar: 3 semester hours.

Capstone seminar in Historical research and writing. Culminates in a major research paper on topics proposed by students. PREREQ HIST 2291. S

HIST 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Human Resources Training and Development (HRD)

Human Resources Training and Development (HRD) courses are now listed as Organizational Learning and Performance (OLP) courses. Please see OLP (p. 615) for a list of courses.

Idaho Dental Educ Prog (IDEP)

Courses

IDEP 4413 Dental Anatomy Lecture I: 1 semester hour.

Nomenclature, chronology and methods of designation of human teeth. Form, size and contour of the teeth, including external and internal anatomy of the permanent and deciduous dentitions, intertooth relations and occlusion. F

IDEP 4414 Dental Anatomy Laboratory: 3 semester hours.

Carving of plaster teeth larger than average measurements and carving of wax teeth to natural size. Mounting of study casts on a functional articulator and waxing of teeth in occlusion. F

IDEP 4415 Dental Materials Science I: 2 semester hours.

Composition, properties and application of the materials used in dentistry. Basic information on the design of preparatory work necessary for the mouth incident to the reception of these materials. F

IDEP 4417 Interpersonal Relationships and Communication: 1 semester hour.

To assist their orientation and adjustment to professional education, freshmen will participate in group introductions followed by a discussion on interpersonal relationships and communication in general, relationships with classmates, administrators, faculty, and staff; dealing with stress; and establishing study habits. Graded S/U. F

IDEP 4423 Preventative Dentistry: 2 semester hours.

Introducing the philosophy and need for preventive dentistry by developing the student's knowledge of and skills for effective oral hygiene. Concepts of self motivation, knowledge of dental diseases and abnormalities; application of the principles of fluoridation, nutrition, patient motivation, and home care. F

IDEP 4425 History of Dentistry: 1 semester hour.

To acquaint the study with the history of dentistry from ancient times to present, emphasis is placed upon contributions by individuals and groups of individuals leading to the current status of dentistry in the United States. Graded S/U. F

IDEP 4426 Community Dentistry Field Experience: 1 semester hour.

Designed to acquaint students with area health problems and with area health services and agencies. Field experience is gained during dental health and/or career presentations in public schools. To provide a variety of experiences, visits are made, for example, to the chronically ill, aged, or handicapped; to water purification facilities; to Indian groups. S

IDEP 4433 Oral Hygiene Technique: 1 semester hour.

Introduction to the instruments and their usage in performing a complete scaling prophylaxis of the teeth. Periodontal charting and instrument sharpening techniques are also performed. Didactic, laboratory, and clinical introduction. S

IDEP 4434 Dental Materials Science II: 3 semester hours.

Continuation of IDEP 4415. PREREQ: IDEP 4415. S

IDEP 4435 Occlusion Laboratory: 1 semester hour.

Various exercises simulating clinical diagnostic and treatment procedures are employed to exemplify principles of maxillomandibular relationships. S

IDEP 4444 Values and Ethics: 1 semester hour.

Designed to identify and understand one's own ethical decision-making processes and the relationship of religion with values and ethics. Students will discuss the areas of value of care for people as individuals, challenges of personal and professional opportunities, code of ethics of the A.D.A. and dental care delivery systems. Graded S/U. F

IDEP 4454 Occlusion Lecture: 1 semester hour.

Basic principles of maxillomandibular relationships, static and functional, as related to the occlusal surfaces of the teeth. S

IDEP 4463 Dental Radiology I: 1 semester hour.

History, theory and application of ionizing radiation resulting in radiography of the oral structures; including exposure and developing parameters along with basic interpretation. S

IDEP 4464 Dental Radiology Technique: 1 semester hour.

Practical experience in exposing and developing dental radiographs. The course will include techniques required to complete a diagnostic full mouth series, bitewing films and panoramic radiographs. COREQ: IDEP 4463. S

IDEP 4465 Dental Radiology II: 1 semester hour.

History, theory, and application of radiographic methods in dentistry including cephalometric, panoramic, and digital modalities. COREQ: IDEP 4463 and IDEP 4464. S

Informatics (INFO)

Courses

INFO 1100 Fundamental Computer Literacy: 3 semester hours.

Use of basic productivity software. Includes familiarization with word processing, presentations, spreadsheet, Internet. D

INFO 1101 Digital Information Literacy: 3 semester hours.

Focuses on how to locate, evaluate, and utilize information using digital resources, i.e., computers, mobile devices, and the Internet. As such, the course begins by establishing a common model of computing that will help to understand current technologies, from cell phones to supercomputers, as well as future computing technologies. The course then investigates how best to use those tools to properly identify, collect, evaluate, synthesize, and present information. Satisfies Objective 8 of the General Education Requirements. F, S

INFO 1110 Web Development: Essentials: 3 semester hours.

Introduction to the fundamentals of web site creation. Students will develop, manage, and maintain professional web sites using HTML5 and Cascading Style Sheets, and explore web site design and layout, accessibility, and globalization issues. D

INFO 1150 Software and Systems Architecture: 3 semester hours.

Principles and application of computer hardware and systems software in the context of designing business IT infrastructures through combination of theory-based lectures and applied laboratory experiences. COREQ: INFO 1181/CS 1181. D

INFO 1181 Informatics and Programming I: 3 semester hours.

Problem-solving methods and algorithm development with an emphasis on programming style with Java or C#. Includes Secure Software Concepts, such as what constitutes secure software and what design aspects to take into consideration to construct resilient software. Equivalent to CS 1181. Satisfies Objective 7 of the General Education Requirements. PRE-or-COREQ: MATH 1143 or MATH 1147. F, S

INFO 1182 Informatics and Programming II: 3 semester hours.

Object-oriented programming in the context of design, using OO principles and UML diagrams. Includes Secure Software Concepts, such as what constitutes secure software and what design aspects to take into consideration to construct resilient software. PREREQ: INFO 1181/CS 1181. F,S

INFO 2220 Web Development: Client-Side Programming: 3 semester hours.

Introduces interactive web development using a client-side language like JavaScript. Basic programming concepts common to almost all programming languages form the basis of the course. Exercises are designed to enhance students' problem-solving techniques and analytical thinking skills. PREREQ: INFO 1181/CS 1181. D

INFO 3301 Introduction to Informatics and Analytics: 3 semester hours.

Techniques and tools for analyzing and solving business problems. Data analytics methodologies, predictive and forecasting procedures, along with executive style dashboard reporting are covered using intermediate spreadsheet functionalities. F, S

INFO 3303 Informatics Concepts: 3 semester hours.

A survey course to introduce basic informatics principles, theories, and technology to non-business students. D

INFO 3307 Systems Analysis and Design: 3 semester hours.

Develops systems analysis skills using proven techniques, prototyping, and structured analysis and design phases of the systems development life cycle. The course emphasizes Secure Software Design, which includes secure design elements, software architecture, secure design review, and threat modeling. Requirements gathering is emphasized, including secure software requirements gathering to capture all of the security requirements from various stakeholders and understand the sources and processes needed to ensure a more effective design. PREREQ: INFO 1181/CS 1181 or INFO 3303. D

INFO 3310 Introduction to Information Assurance: 3 semester hours.

A survey course providing an introduction to the fields of Information Assurance and Privacy. Emphasizes legal and ethical components of information security practices. The course is designed primarily for non-INFO majors. Not applicable toward INFO major. D

INFO 3330 Health Informatics: 3 semester hours.

Introduction to and overview of the evolution of information systems to support health services in the healthcare industry, its current state and future directions and challenges. Students will learn the regulatory requirements and standards that drive the data content and structure, collection, storage, retrieval, dissemination, and transmission, as well as legal issues related to collection, use, and the security of health information. The course will survey cross-functional factors and ethical concerns in the design and implementation of information technologies (clinical, administrative, and learning), knowledge management principles, professional practice trends, and explore some of the emerging information technology in health care. Equivalent to HCA 3330. D

INFO 3380 Networking and Virtualization: 3 semester hours.

Study of the implementation and development of network information systems. Protocols and techniques will be compared, and virtualization and cloud computing will be emphasized. PREREQ: INFO 1150 or CS 2275 or INFO 3303. D

INFO 3393 Informatics Internship: 1-3 semester hours.

Internship program coordinated by faculty providing significant exposure to INFO issues. May not be used to fulfill major requirements. Graded S/U. F, S

INFO 4407 Database Design and Implementation: 3 semester hours.

Covers multi-user relational database management systems, stored procedures, SQL, transaction processing, etc. The course emphasizes Secure Software Design, which includes secure design elements, software architecture, secure design review, and threat modeling. PREREQ: INFO 3307 and either INFO 1182 or CS 1182. D

INFO 4411 Intermediate Information Assurance: 3 semester hours.

Focuses on homeland security, information assurance, integrity, control, and privacy. Covers CNSS-4011, NIST-800-16 standards, national policy, and international treaties. The course considers Software Deployment, Operations, Maintenance and Disposal, including security issues around steady state operations and management of software, as well as security measures that must be taken when a product reaches its end of life. PREREQ: INFO 1150 or CS 2275 or INFO 3310, or permission of instructor. D

INFO 4412 Systems Security for Senior Management: 1-3 semester hours.

Review of system architecture, system security measures, system operations policy, system security management plan, and provisions for system operator and end user training. COREQ: INFO 4419. PREREQ: INFO 4416 or permission of instructor. D

INFO 4413 Systems Security Administration: 1-3 semester hours.

Outlines the basic principles of systems security administration. The student will be introduced to the methods and technologies associated with running a system to maintain privacy and security. COREQ: INFO 4419. PREREQ: INFO 4411 or permission of instructor. D

INFO 4414 Systems Security Management: 1-3 semester hours.

Establishes a framework for managing both systems and systems administrators operating in a secure and private computing environment. The course deals with facilities management, contingency plans, laws, standards of conduct and operations management. COREQ: INFO 4419. PREREQ: INFO 4413 or permission of instructor. D

INFO 4415 System Certification: 1-3 semester hours.

Describes the techniques and methods for certifying a system is in compliance with national and governmental information assurance standards. Evaluates various certification methodologies. COREQ: INFO 4419. PREREQ: INFO 4414 or permission of instructor. D

INFO 4416 Risk Analysis: 1-3 semester hours.

Develops techniques to characterize and provide perspective on the likelihood of adverse events. Explains methods to characterize the consequences and general costs associated with the various adverse events occurring. The analysis provides insight into various likelihood and consequence combinations. COREQ: INFO 4419. PREREQ: INFO 4415 or permission of instructor. D

INFO 4419 Advanced Informatics Practicum: 1-3 semester hours.

Significant informatics experience including research coordinated by the faculty designed to provide broad exposure to issues in Information Assurance. Does not fulfill major/minor requirements. May be repeated for up to 6 credits. Graded S/U. PREREQ: Permission of instructor. D

INFO 4422 Health Information Governance: 3 semester hours.

The aim of this course is to provide a broad base of understanding of the range of issues that IT professionals must be aware of upon entering the healthcare industry. Students will be exposed to the current state of health industry security environment and the larger regulatory environment in which healthcare organizations operate. This is important in light of the recent move towards cloud-based electronic health records (EHRs) and third party-developed health applications. Further, issues relating to privacy/security, information governance and information risk assessment will also be covered. Finally, students will be exposed to interventions that can help mitigate the risks identified. PREREQ: INFO 3330. D

INFO 4424 Healthcare Workflow Process Analysis and Redesign: 3 semester hours.

The aim of this course is to provide a broad-based understanding of workflow processes in the healthcare industry. In particular, the course will develop skills necessary to critically analyze and redesign the patient flow processes and utilize health IT systems both in the administrative and clinical landscape to achieve greater operational efficiency and provide higher quality of care to patients. Quality improvement methods and tools as well as process change implementation, improvement, and management will also be discussed in this course. PREREQ: INFO 3330. D

INFO 4426 Health Data Analytics: 3 semester hours.

Introduction to and the use of intermediate analytical skills to identify trends, correlations to predict outcomes and provide meaningful recommendations. Variety of data sources and structures are identified and transformed into relevant information in the clinical context to recommend new treatments and technologies, improve effectiveness and efficiency, design and plan policy and programs, improve service delivery and operations, enhance sustainability, mitigate risk, and provide a means for measuring and evaluating critical organizational data that helps the healthcare organization to achieve increased quality of care and patient satisfaction. PREREQ: INFO 3330 and MGT 2217. D

INFO 4430 Web Application Development: 3 semester hours.

Focuses on the development of dynamic, online applications using a programming language like PHP or ASP.Net and a relational database. The course will consider Secure Software Implementation/Coding, which involves secure coding practices, avoiding vulnerabilities, and reviewing code to ensure that there are no errors in the code or security controls. PREREQ: INFO 2220. PRE-or-COREQ: INFO 4407. D

INFO 4432 Mobile Application Development: 3 semester hours.

This course will introduce mobile app programming and provide theoretical and practical knowledge to design and build mobile applications. Students will learn various techniques in mobile app development using a programming language like Java. PREREQ: INFO 1182 or CS 1182. D

INFO 4482 Systems Development and Implementation Methodologies: 3 semester hours.

This course presents the process of software development and the methodologies to lower development costs, increase software reliability, decrease development time and ensure application development success. An overview and comparison of traditional and modern methods of software development are presented. PREREQ: INFO 4407 or CS 4451. PRE-or-COREQ: INFO 4430 or CS 4440. D

INFO 4484 Secure Software Life Cycle Development: 3 semester hours.

In today's interconnected world, security must be included within each phase of the software lifecycle. This course contains the largest, most comprehensive collection of best practices, policies, and procedures to ensure a security initiative across all phases of application development, regardless of methodology. PREREQ: INFO 4482. D

INFO 4486 Data Analytics: 3 semester hours.

Provides an overview of the fundamentals of analysis to support decision makers in achieving organizational results. Students become familiar with the tools needed to frame problems, analytical techniques to generate and test hypotheses, and the skills to interpret the results into meaningful information. PREREQ: MGT 2217. D

INFO 4487 Software Systems Study: 3 semester hours.

In addition to system optimization techniques, management strategies will be discussed. PREREQ: INFO 3307. D

INFO 4488 Informatics Senior Project: 3 semester hours.

Provides the knowledge and tools necessary to develop a physical design and an operational computerized system in a secure environment. The course will consider Secure Software Implementation/Coding, which involves secure coding practices, avoiding vulnerabilities, and reviewing code to ensure that there are no errors in the code or security controls. It will also cover Secure Software Testing, including integrated software testing for security, functionality, reliability, resiliency to attack, and recoverability. Software Acceptance will also be considered, such as reviewing security implications in the software acceptance phase including completion criteria, risk acceptance, and documentation, common criteria, and methods of independent testing. PREREQ: INFO 1182. PRE-or-COREQ: INFO 4430 and INFO 4482. D

INFO 4491 Seminar in Informatics: 3 semester hours.

Reading, discussion, and reporting on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: Senior status in Business and permission of instructor. D

INFO 4492 Special Problems in Informatics: 1-3 semester hours.

Research and reports on problems or topics in business informatics. Each project may be taken between 1-3 credits. May be repeated for up to 9 credits with different content. PREREQ: Senior status in Business and permission of the Chair. D

INFO 4493 Advanced Informatics Internship: 3 semester hours.

Significant business experience coordinated by the faculty to provide broad exposure to informatics issues. Letter grade assigned. F, S

INFO 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Information Tech Sys (ITS)

Courses

ITS 0100 Computer Essentials: 4 semester hours.

This course provides students with the knowledge of computer hardware and software and advanced concepts such as security, networking, and the responsibilities of an IT professional. Students who complete this course will be able to explain the internal components of a computer, describe how to assemble a computer system and install an operating system. Students working through hands-on activities will gain skills in computer assembly, configuration, and maintenance. F, S

ITS 0110 Cisco Certified Network Associate 1: 4 semester hours.

Introduction to the OSI reference model, network addressing, sub-netting, TCIP/IP network-layer protocols, LAN media and topology, and networking devices. F, S

ITS 0120 Introduction to Linux: 3 semester hours.

Introduction to LINUX operating system and graphical user interfaces. Includes an overview of the Red Hat Linux distribution. Lecture/Laboratory. F, S

ITS 0135 Windows Desktop Operating Systems: 3 semester hours.

Students will be introduced to the latest Microsoft Desktop Operating System used in the Information Technology industry. F, S

ITS 0150 Networking I: 4 semester hours.

Introduction to theory and troubleshooting methods for network systems to include IP routing protocols, EIGRP, OSPF, OSI model, VLANs, switching technologies, and safety procedures. PREREQ: ITS 0110. F, S

ITS 0165 Cybersecurity: 3 semester hours.

An introduction to Cybersecurity that explores the importance of cybersecurity, data confidentiality, best practices for using the internet and social media safely, and potential opportunities in this growing field. PREREQ: ITS 0110

ITS 0180 Network Operating Systems: 3 semester hours.

Study of multi-user, multi-tasking networking operating systems. Characteristics of current industry operating systems software. Topics include installation procedures, security issues, back up procedures and remote access. Lecture/Laboratory. PREREQ: ITS 0120 and ITS 0135. F, S

ITS 0205 Information Technology Internship: 7 semester hours.

Students will work in the information technology industry performing various tasks related to IT roles, putting their classroom learning into practical situations. PREREQ: ITS 0110. Su

ITS 0215 Networking II: 3 semester hours.

Advanced study of theory and troubleshooting methods for network systems to include IP routing protocols, advanced EIGRP concepts, OSPF multi-area, OSI model, switching technologies such as EtherChannel and HSRP, and safety procedures. PREREQ: ITS 0150. F, S

ITS 0218 PowerShell Scripting: 3 semester hours.

Introductory PowerShell scripting class that focuses on using PowerShell scripts to automate common system administration tasks. PREREQ: ITS 0180. F, S

ITS 0220 Networking III: 3 semester hours.

Wide Area Network technologies such as Point-to-Point Protocol, frame relay, and other emerging technologies. Lecture/Laboratory. PREREQ: ITS 0215. F, S

ITS 0230 Wireless Technologies: 3 semester hours.

Design, planning, implementation, operation and troubleshooting of wireless networks. Comprehensive overview of technologies, security, and design best practices with emphasis on hands-on skills. Lecture/Laboratory. PREREQ: ITS 0150. F, S

ITS 0240 Securing the LAN: 4 semester hours.

Design and implement security solutions for LANs that will reduce the risk of revenue loss and vulnerability, via hands-on and instructor-led experience and e-learning. Lecture/Laboratory. PREREQ: ITS 0215. F, S

ITS 0290 Internship: 1-8 semester hours.

On-the-job experience in the information technology field. PREREQ: Pertinent course preparation and permission of program coordinator. F, S, Su

ITS 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

ITS 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

ITS 0299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Instr and Auto Engr Tech (INST)

Courses

INST 0140 Introduction to Motors and Motor Control Theory: 2 semester hours.

Introduces basic motors and motor control. Fundamentals of AC and DC motors; includes two-wire and three-wire controls using various controllers, control relays, timing relays, solenoid valves, latching relays, and motor control centers. Computer software used to design and verify motor control circuits. S

INST 0220 Introduction to Programmable Logic Controllers: 3 semester hours.

Ladder format, I-O instructions, external devices, operating cycle, relays, timers, counters, sequencers, shift registers, analog applications, math blocks, and troubleshooting. F, S

INST 0236 Applications of Electronic Electrical and Industrial Process Control Fundamentals: 6 semester hours.

Application of electronic sensors, thyristor circuits, and networks. Electrical motor control, relays, timers, and PLCs. Computer software used to design and verify motor control circuits, variable frequency drives, and interface methods for controllers. Basic process control, print reading, and device calibration methods. Troubleshooting techniques and safety practices. D

INST 0240 Theory: 2 semester hours.

Basic concepts of process control devices, calibration and test equipment, diagrams and symbols. F, S, Su

INST 0242 Theory: 2 semester hours.

Electronic instruments-sensors, indicators, transmitters, computing relays, electro-optics, electronic controllers, ratio control, cascade control, recorders, analytical equipment, troubleshooting. F, S, Su

INST 0250 Laboratory: 1 semester hour.

Use of test equipment, power supplies, current and volt measurements, use of oscilloscope, capacitor checker, decade box, Wheatstone bridge, transmitter simulator, manometers, pressure calibration devices. F, S, Su

INST 0251 Laboratory: 1 semester hour.

Set up, maintenance, and troubleshooting of pneumatic control systems, air supply, air regulators, pressure gauges pneumatic transducer calibration, control valve operation with and without positioner, controller operation set point, measurement error, offset, proportional band, reset, derivative, reverse and direct acting. F, S, Su

INST 0253 Laboratory: 1 semester hour.

Computer and programmable controller interfacing with transmitters and final elements, PID loops, auto tuning, set up to complete control loops, computer graphics. F, S, Su

INST 0254 Laboratory: 1 semester hour.

Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. F, S, Su

INST 0260 Electrical Systems Documentation and Standards: 2 semester hours.

Introduction to print reading, technical specifications, print annotation, report writing and Electrical codes. F, S, Su

INST 0281 Electrical Automation Theory: 8 semester hours.

Theory of control devices and automated systems, sensors, timers, relays, solenoids, line starters, programmable logic controllers (PLCs), print reading, motor control, programming and interfacing PLCs, Human Machine Interfaces (HMIs), variable frequency drives (VFDs), basic Ethernet communication. COREQ: INST 0282. PREREQ: ESET 0102, ESET 0102L, ESET 0110, ESET 0110L. F, S

INST 0282 Electrical Automation Laboratory: 5 semester hours.

Application of INST 0281. Design, install, and troubleshoot automated control systems, relays, sensors, solenoids, indicators, timers, transformers, line starters, motors, programmable logic controllers (PLCs), variable frequency drives (VFDs), human machine interfaces (HMIs), basic Ethernet communication. COREQ: INST 0281. F, S

INST 0288 Directed Studies: 1-8 semester hours.

Study tailored to individual assignment and reporting under faculty guidance. Student will pursue a unit of activity related to the instrumentation/industrial controls field. May be repeated for a maximum of 16 credits. PREREQ: Permission of instructor. F, S, Su

INST 0292 Process Measurement and Control Theory: 10 semester hours.

Theory of measurement and process control with an emphasis on pressure, temperature, level, and flow. Common instrumentation signals. Methods of tuning, programming, and troubleshooting process control loops on DCS and PLC platforms. Final element selection and troubleshooting. COREQ: INST 0293. PREREQ: INST 0281, INST 0282. F, S

INST 0293 Process Measurement and Control Laboratory: 4 semester hours.

Application of INST 0292; calibration of transmitters, indicators, and controllers. Interfacing pneumatic, electrical, electronic, and computer devices. PID control loop tuning, installation and troubleshooting of working systems. Connecting and configuring instrumentation for programmable controllers. Process control programming. COREQ: INST 0292. F, S

INST 0294 Cooperative Training: 1-16 semester hours.

Student pursues on-the-job training in the instrumentation/industrial controls industry which satisfies competencies in lieu of instrumentation/industrial controls courses. A University Co-op agreement must be signed by all parties involved. Student will pursue a pre-determined unit of activity related to the field of study. May be repeated for a maximum of 16 credits. PREREQ: Permission of instructor. D

INST 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

International Studies (IS)

International Studies (IS) courses are now listed as Global Studies (GLBL) courses. Please see GLBL (p. 577) for a list of courses.

Japanese (JAPN)

Courses

JAPN 1101 Elementary Japanese I: 4 semester hours.

Basic communication skills, grammatical structures, and acquaintance with culture in Japan. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. F, S

JAPN 1102 Elementary Japanese II: 4 semester hours.

Basic communication skills, grammatical structures, and acquaintance with culture in Japan. Practice in the language laboratory is required. PREREQ: JAPN 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. F, S

JAPN 2200 Intermediate Enrichment: 1-4 semester hours.

Enhances intermediate students' progress in listening, speaking, reading, writing as well as broadening cultural and historical understanding. May be repeated for a maximum of 4 credits. PREREQ: C- in JAPN 1102. COREQ: JAPN 2201 or JAPN 2202. F, S, Su

JAPN 2201 Intermediate Japanese I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Japanese. Contrastive study of culture as reflected in the Japanese language. Practice in the language laboratory is required. PREREQ: JAPN 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F

JAPN 2202 Intermediate Japanese II: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Japanese. Contrastive study of culture as reflected in the Japanese language. Practice in the language laboratory is required. PREREQ: JAPN 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

JAPN 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

JAPN 2220 Basic Kanji I: 3 semester hours.

Introduction to basic kanji practice through acquisition of communication skills, grammatical structures, and acquaintance with culture in Japan. Writing, reading, and speaking of basic kanji and kanji components. PREREQ: JAPN 1101 or equivalent. D

JAPN 2221 Basic Kanji II: 3 semester hours.

Introduction to basic kanji practice through acquisition of communication skills, grammatical structures, and acquaintance with culture in Japan. Writing, reading, and speaking of basic kanji and kanji components. PREREQ: JAPN 2220 or equivalent. D

JAPN 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

JAPN 3301 Japanese Conversation and Composition I: 3 semester hours.

Intensive practice speaking and writing Japanese in forms and styles common to economics, politics, science, society, the arts and creative writing of the Japanese-speaking world. PREREQ: JAPN 2202 or equivalent. F

JAPN 3302 Japanese Conversation and Composition II: 3 semester hours.

Intensive practice speaking and writing Japanese in forms and styles common to economics, politics, science, society, the arts and creative writing of the Japanese-speaking world. PREREQ: JAPN 2202 or equivalent. S

JAPN 3303 Professional Japanese: 3 semester hours.

Intensive practice speaking, reading and writing Japanese in business, medical, legal, or other professions. May be repeated for up to 6 credits with different content. PREREQ: JAPN 2202 or equivalent. D

JAPN 3305 Study Abroad: 1-6 semester hours.

Available only through study overseas. Development of upper-division level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

JAPN 3320 Intermediate Kanji I: 3 semester hours.

Intensive practice of intermediate kanji through development of intermediate level communicative competencies in speaking, listening, reading, and writing in kanji and kanji components. PREREQ: JAPN 2221 or equivalent. D

JAPN 3321 Intermediate Kanji II: 3 semester hours.

Intensive practice of intermediate kanji through development of upper-division level communicative competencies in speaking, listening, reading, and writing in kanji and kanji components. PREREQ: JAPN 3320 or equivalent. D

JAPN 3341 Survey of Japanese Literature and Civilization I: 3 semester hours.

Comprehensive overview of main currents of Japanese cultural history and literature. Conducted in Japanese. PREREQ: JAPN 2202 or equivalent. D

JAPN 3342 Survey of Japanese Literature and Civilization II: 3 semester hours.

Comprehensive overview of main currents of Japanese cultural history and literature. Conducted in Japanese. PREREQ: JAPN 2202 or equivalent. D

JAPN 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

JAPN 4470 Readings in Japanese: 2 semester hours.

Reading, discussion, and writing on selected topics in Japanese literature. May be repeated for up to 4 credits with different content. Conducted in English or Japanese, depending on each student's skills. PREREQ: Permission of instructor. D

JAPN 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

JAPN 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Languages and Literatures (LANG)

Courses

LANG 1101 Elementary Foreign Language I: 4 semester hours.

Basic communication skills, grammatical structures, and acquaintance with culture in languages other than those regularly taught. Graded S/U. Partially satisfies Objective 4 of General Education Requirements. D

LANG 1102 Elementary Foreign Language II: 4 semester hours.

Basic communication skills, grammatical structures, and acquaintance with culture in languages other than those regularly taught. Graded S/U. Partially satisfies Objective 4 of the General Education Requirements. PREREQ: 1101 or equivalent. D

LANG 1107 Nature of Language: 3 semester hours.

General survey of structure and use of language. Topics include language origins, descriptive and historical linguistics, language and culture, and history of the English language. Equivalent to ANTH 1107 and ENGL 1107. Satisfies Objective 7 of the General Education Objectives. S

LANG 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

LANG 2201 Intermediate Foreign Language I: 4 semester hours.

Extensive grammar review; communication skills in languages other than those regularly taught. Graded S/U. PREREQ: LANG 1102 or equivalent. D

LANG 2202 Intermediate Foreign Language II: 4 semester hours.

Extensive grammar review; communication skills in languages other than those regularly taught. Graded S/U. PREREQ: LANG 1101 or equivalent. D

LANG 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

LANG 4437 The Teaching of Foreign Languages: 3 semester hours.

Study of the various methods used in teaching foreign languages, the extent and scope of language courses; the selection of suitable text books; audio-visual techniques and their contribution to language instruction. PREREQ: Permission of instructor. S

LANG 4455 Introduction to Phonetics: 3 semester hours.

Introduction to descriptive linguistics focusing on the phonetics and phonetic phenomena of English and the other languages of the world. Extensive practice in perception and production of such phenomena. Equivalent to ANTH 4455. PREREQ: ANTH/ENGL/LANG 1107. D

LANG 4456 Introduction to Phonology and Morphology: 3 semester hours.

Phonological theory and analysis; current theories in morphology. Phonological rules, representations, underlying forms, derivations, justifications of phonological analyses; morphological structure, derivational and inflectional morphology; relation of morphology to phonology. Equivalent to ANTH 4456. PREREQ: ANTH/ENGL/LANG 1107. D

LANG 4457 Survey of Indo European Languages: 3 semester hours.

Survey of Indo-European languages from ancient to modern times, their relationships to one another, and chief characteristics. Equivalent to ANTH 4457. PREREQ: Completion of Goal 10B. D

LANG 4477 Phonology: 3 semester hours.

Study of articulatory phonetics and practice in phonetic transcription of a broad survey of languages; phonological analysis and theory. D

LANG 4484 Rotating Topics in Linguistics: 3 semester hours.

Rotating topics in different areas of linguistics and linguistic analysis. Consult current schedule of classes for exact course being taught. May be repeated for up to 6 credits. Equivalent to ANTH 4484 and ENGL 4484. PREREQ: ANTH/LANG/ENGL 1107 or ENGL 2280 or ENGL 2281. D

LANG 4488 Foreign Language Seminar: 3 semester hours.

Advanced studies in selected topics from language, culture, literatures or methods of research. May be conducted in English. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

LANG 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Latin (LATN)

Courses

LATN 1101 Elementary Latin I: 4 semester hours.

Intended to teach students basic reading skills and grammatical structures in Latin and to acquaint them with the culture of Ancient Rome. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

LATN 1102 Elementary Latin II: 4 semester hours.

Intended to teach students basic reading skills and grammatical structures in Latin and to acquaint them with the culture of Ancient Rome. Practice in the language laboratory is required. PREREQ: LATN 1101. Partially satisfies Objective 4 of the General Education Requirements. D

LATN 2201 Intermediate Latin I: 4 semester hours.

Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil's Aeneid. PREREQ: LATN 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

LATN 2202 Intermediate Latin II: 4 semester hours.

Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil's Aeneid. PREREQ: LATN 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

LATN 4470 Readings in Latin: 2 semester hours.

Reading, discussion, and writing on selected topics in Latin literature. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

Law Enforcement (LAWE)

Courses

LAWE 0101 Law Enforcement I: 7 semester hours.

This course will cover drill and ceremony, orientation, ILETS, court procedures/ rules of evidence, criminal law, laws of arrest, search and seizure, use of force, crimes against children, report writing, sexual assault investigation, domestic violence investigation, traffic law, special needs citizens, crime scene investigation, collection and preservation of evidence, finger printing, traffic collision, DUI investigation, and standard field sobriety testing. PREREQ: Admission to the program. Must pass background check and polygraph test prior to admission. COREQ: LAWE 0102 and LAWE 0103. F, S, D

LAWE 0102 Law Enforcement 2: 7 semester hours.

This course will cover cultural diversity, homeland security, Miranda review, CPR and first aid, officer survival, ethics and professionalism, juvenile procedures, death notification, effective communication/control presence, gangs and threat groups, interview and interrogation, drug identification, drug investigation, auto theft, financial crimes, digital evidence, patrol procedures, community policing, crime prevention, and health and fitness. PREREQ: Admission to the program. Must pass background check and polygraph test prior to admission. COREQ: LAWE 0101 and LAWE 0103. F, S, D

LAWE 0103 Law Enforcement 3: 8 semester hours.

This course will cover defense tactics - arrest techniques, defense tactics - ground control, defense tactics - weapons retention, defense tactics - reactive impact weapons, defense tactics - active countermeasures, building search, fire arms, emergency water safety, traffic stops, traffic control, and emergency vehicle operations. PREREQ: Admission to the program. Must pass background and polygraph testing prior to admission. COREQ: LAWE 0101 and LAWE 0102. F, S, D

LAWE 0104 Detention Procedures: 4 semester hours.

This course will cover: medical aspects, overview of legal system, inmate discipline, staff/inmate contact, jail standards, Garrity rule, jail liability, PREA, detention officer survival, hostage survival, transport, restraint and pat downs, cell search, fire evacuation, con games, inmate classification. PREREQ: Admission to program and LAWE 0101, LAWE 0102, and LAWE 0103. Su

LAWE 0200 Law Enforcement Internship I: 2 semester hours.

This course includes assignments in jail activities, records management, communications, detective division, and other assignments with a Field Training Officer. PREREQ: Law Enforcement certificate and criteria as a Reserve Level I Officer.

LAWE 0201 Law Enforcement Internship II: 3 semester hours.

This course is a continuation of LAWE 0200. PREREQ: LAWE 0200.

LAWE 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

LAWE 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

LAWE 0298P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

Library/Information/Research (LLIB)

Courses**LLIB 1115 Introduction to Information Research: 3 semester hours.**

Develop life-long strategies for recognizing when you need information, locating it, evaluating it, and using it effectively and ethically. Explore a variety of tools and formats in order to find sources worth using/citing in support of academic projects. Satisfies Objective 8 of the General Education Requirements. F, S

Management (MGT)

Courses**MGT 1101 Introduction to Business: 3 semester hours.**

Relates the business person and business enterprise to the economy as a whole, describes the major field of business in terms of functions and opportunities, and charts the significant relationship to government and society. May not be taken by business students who have been admitted to major, or by juniors or seniors taking classes toward any business major. D

MGT 1105 Entrepreneurship and Civilization: 3 semester hours.

To chart how the pursuit of economic opportunity by private individuals and businesses has been a prime mover in revolutionizing civilization throughout history, and presently. Students will develop their own entrepreneurial idea and explain its impact on their local communities. F, S

MGT 2210 Entrepreneurship Opportunity Creation and Discovery: 3 semester hours.

Learn to develop business opportunities by applying creative solutions to important problems. Conduct an initial feasibility of new business opportunities. D

MGT 2216 Business Statistics: 3 semester hours.

Descriptive statistics, probability, confidence intervals, hypothesis testing including one and two sample z/t-tests, chi-square and ANOVA. Emphasis on statistical software to analyze data for business decision making. Satisfies Objective 3 of the General Education Requirements. PREREQ: ENGL 1101 or ENGL 1101P and MATH 1108. F, S

LLIB 1125 Introduction to Health Information Research: 3 semester hours.

Develop life-long strategies for recognizing when you need health information, as well as how to find it, evaluate it, and use this information effectively and ethically. This course will focus on concepts such as evidence-based practice, developing a well-built clinical question, searching biomedical information resources, and using health-science research techniques. F, S

MGT 2217 Advanced Business Statistics: 3 semester hours.

Linear and multiple regression, forecasting and statistical process control. Emphasis on use of statistical software; written and oral communication of statistical information in a business setting. PREREQ: MGT 2216 and MATH 1108. F, S

MGT 2261 Legal Environment of Organizations: 3 semester hours.

Covers the legal, ethical, social, economic, political, and regulatory environment of business. Topics include: Business ethics, constitutional law, tort law, product liability, antitrust, employment law, securities regulation, and bankruptcy. PREREQ: Sophomore standing. F, S

MGT 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MGT 3303 Management Concepts: 3 semester hours.

A basic overview of management concepts focusing primarily on managing people in organizations. Available to non-business majors only. D

MGT 3312 Individual and Organizational Behavior: 3 semester hours.

Study of internal structure and function of organizations and management practices. Provides theoretical and conceptual bases for analyzing relationships among individual, group, and total system behavior in achievement of organizational objectives within larger organizational environments. PREREQ: Junior standing and ENGL 1102. F, S

MGT 3329 Operations and Production Management: 3 semester hours.

Basic concepts, philosophy, and techniques of analysis for decision-making at the operational level. PREREQ: MGT 2217 and completion of lower division requirements. PRE-or-COREQ: INFO 3301. F, S

MGT 3345 Critical Analysis and Creative Problem Solving: 3 semester hours.

Provides processes and techniques for formulating and solving business-relevant problems. The ability to effectively communicate the results of the problem-solving process, especially in writing, is also stressed. PREREQ: ENGL 1102. F, S

MGT 3393 Management Internship: 1-3 semester hours.

Internship program coordinated by faculty providing significant exposure to management issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

MGT 4410 Entrepreneurship Opportunity Feasibility and Planning: 3 semester hours.

Conduct a detailed feasibility analysis of a business idea and complete a business plan using sound business principles. Equivalent to MKTG 4410. PREREQ: MGT 2210 or MKTG 2225; Business major or permission of dean. D

MGT 4411 Small Business and Entrepreneurship Practicum: 3 semester hours.

Advanced students address eastern Idaho entrepreneurship and small business issues. Projects address complex business problems under the supervision of a senior consultant. Class discussions supplement field work. Equivalent to MKTG 4411. PREREQ: Senior status or permission of instructor. D

MGT 4420 Native American Organizational Systems: 3 semester hours.

Analysis of factors and dimensions to be considered in the structure and design of contemporary Native American organizations. Comparison of contemporary Native organizational systems with traditional Native organizational approaches and contemporary non-Native organizations. PREREQ: MGT 3312 or permission of instructor. D

MGT 4422 Native American Enterprise: 3 semester hours.

Approaches, strategies, and models utilized in developing tribally-owned and privately-owned Native American businesses across the U.S. and Canada. Analysis of social, economic, and environmental contingency factors that contribute to successful establishment of Native American businesses. PREREQ: Junior standing or permission of instructor. D

MGT 4430 Advanced Operations and Production Management: 3 semester hours.

Study of problems of line management in organizations. Major sections include strategy, process analysis, manpower planning, inventories, scheduling, and control of operations. Emphasizes both behavioral and technical aspects of problem solving in the area of operations management. PREREQ: MGT 3329 and MGT 3312. D

MGT 4434 Productivity and Quality: 3 semester hours.

Study of the factors involved in an organization's productivity and quality of product or service. PREREQ: MGT 2217, MGT 3312, and MGT 3329. D

MGT 4441 Leading in Organizations: 3 semester hours.

Skills-oriented approach to the understanding and application of behavioral theories and concepts to organizational problems. Emphasis on leadership skill awareness and development through applying conceptual knowledge to case studies and skill practice scenarios. PREREQ: MGT 3312. D

MGT 4450 Manufacturing Strategy: 3 semester hours.

Study of the various production alternatives as critical factors in a company's competitive strategies. PREREQ: MGT 3329 and MGT 3312. D

MGT 4460 Strategic Management: 3 semester hours.

A capstone course which integrates the functional areas of business designed to provide insight into how business decisions are made. PREREQ: Senior standing and INFO 3301, FIN 3315, MGT 3312, MGT 3329 and MKTG 2225. F, S

MGT 4461 Business Law: 3 semester hours.

Traditional business law. Topics include the law of contracts, sales, agencies, business organizations, and personal property and bailments. PREREQ: MGT 2261. D

MGT 4462 Issues in Business and Society: 3 semester hours.

Seminar course designed to focus thinking on critical issues facing managers making ethical decisions regarding employees and other stakeholder groups, the community, and the environment. PREREQ: Senior standing or permission of instructor. D

MGT 4465 International Business: 3 semester hours.

Special emphasis on managerial functions and critical elements of the management process in a firm operating under foreign economic, technological, political, social, and cultural environments. D

MGT 4473 Human Resource Management: 3 semester hours.

Introduction to the methodology of employee selection, employment and development; personnel supervision and management; financial compensation; job analysis; behavioral tools and techniques employed to deal with personnel problems, and contemporary problems of manpower management. PREREQ: MGT 3312. F, S

MGT 4474 Advanced Human Resource Management: 3 semester hours.

In-depth study of selected personnel/human resources management topics, including employee selection, performance evaluation, and compensation administration. PREREQ: MGT 2217 and MGT 4473. S

MGT 4480 Labor and Employment Law: 3 semester hours.

State and federal laws, domestic and foreign, governing employment relationships, including labor-management relations, discrimination and employee rights, work place safety, compensation and benefits, and related topics. PREREQ: MGT 2261 or MGT 4473. F

MGT 4482 Project Management: 3 semester hours.

Philosophy and tools of project management focusing on applied methodologies. Addresses project scope, breakdown structure, schedules, and closure following professionally accepted industry standards. PREREQ: MGT 2216. D

MGT 4483 Industrial Relations: 3 semester hours.

Integrated study of principles and practices of collective bargaining and industrial relations. Discussion of methods and techniques in dealing with labor-management problems arising out of contract negotiations and administration. PREREQ: MGT 3312. D

MGT 4484 International Collegiate Business Strategy Competition: 3 semester hours.

Students apply to compete in an international strategy team competition. Early rounds of the competition take place on campus. The final rounds take place over an intensive weekend in various off-campus locations. Graded S/U. May be repeated one time. PREREQ: Permission of the instructor. D

MGT 4491 Seminar in Management: 3 semester hours.

Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 6 credits with permission of instructor. May be graded S/U. PREREQ: Senior or Graduate status in Business, and permission of instructor. D

MGT 4492 Special Problems in Management: 2-3 semester hours.

Research and reports on selected problems or topics in management and organization. May be repeated for up to 9 credits with different content and permission of major advisor and the Dean. PREREQ: Senior or Graduate status in Business, and permission of the Dean. F, S, Su

MGT 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Marketing (MKTG)

Courses

MKTG 2225 Basic Marketing Management: 3 semester hours.

Introduction to the marketing function in business and other organizations. Environmental aspects of market selection and strategy. Analysis of product, pricing, promotion, and distribution. D

MKTG 3393 Marketing Internship: 1-3 semester hours.

Internship program coordinated by faculty providing significant exposure to marketing issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. D

MKTG 4405 Personal Selling and Sales Force Management: 3 semester hours.

Attention given to product features, buying motives, selling points, principles and practices of selling, psychology of salesmanship, sales problems, personal requirements, opportunities. Determination of the amount and allocation of personal sales effort to be applied to the market and methods of organizing, evaluating, and controlling this effort. PREREQ: MKTG 2225. D

MKTG 4410 Entrepreneurship Opportunity Feasibility and Planning: 3 semester hours.

Conduct a detailed feasibility analysis of a business idea and complete a business plan using sound business principles. Equivalent to MGT 4410. PREREQ: MGT 2210 or MKTG 2225; Business major or permission of dean. D

MKTG 4411 Small Business and Entrepreneurship Practicum: 3 semester hours.

Advanced students address eastern Idaho entrepreneurship and small business issues. Projects address complex business problems under the supervision of a senior consultant. Class discussions supplement field work. Equivalent to MGT 4411. PREREQ: Senior status or permission of instructor. D

MKTG 4421 Services Marketing: 3 semester hours.

Examines the development, promotion, and management of services. Topics covered include strategic planning, delivery channels and promotional challenges inherent to services. PREREQ: MKTG 2225. D

MKTG 4425 Supply Chain Management: 3 semester hours.

Supply Chain Management is a strategy-based course addressing the principles of supply chain function and management. The course explores the underlying reasons that organizations employ supply chain methods in managing the flow of information, materials, services and processes; how and why one structures a business to achieve efficiency and/or effectiveness using supply chain methods; and how supply chain management creates value for stakeholders. PREREQ: MKTG 2225. D

MKTG 4426 Marketing Research: 3 semester hours.

Evaluation and study of the primary means of providing relevant marketing information to management. Emphasizes problem formulation, consideration of data sources, means of acquiring information, sampling, interpretation of results. PREREQ: MGT 2216 and MKTG 2225. D

MKTG 4427 Consumer Behavior: 3 semester hours.

In-depth analysis of the internal and external influences of consumer behavior and decision-making, including learning, perception, cultural values, group influences, and a range of psychological and sociological concepts. This advanced study of consumer behavior will include analysis of a consumer dataset, as well as case studies highlighting concepts under investigation. PREREQ: MKTG 2225. D

MKTG 4428 Integrated Brand Promotion: 3 semester hours.

Planning and execution of advertising, sales promotion, and public relations programs developed into an integrated brand promotion program. Includes development of Integrated Brand Promotion plan. PREREQ: MKTG 2225. D

MKTG 4432 New Product Management: 3 semester hours.

Analysis of new product ideas: screening, business analysis, prototype development, market testing, and commercialization of goods and services. Includes diffusion of innovation issues in consumer and industrial markets. PREREQ: MKTG 2225. D

MKTG 4454 Advanced Marketing Management: 3 semester hours.

Examines planning and problem-solving activities confronting the marketing manager. Integrates pricing, promotion, merchandising, and physical distribution and relates these to other major functional areas. PREREQ: 9 credits of upper division marketing courses. D

MKTG 4465 Globalized Markets: 3 semester hours.

Global market structures are analyzed. Covers issues related to the structure and effects of global markets. Offers insight for global marketing managers and engaged citizens on economic, cultural, and political aspects of global market dynamics. PREREQ: MKTG 2225. D

MKTG 4480 Social Media Strategy: 3 semester hours.

Theory and application of business strategy in the context of social media. Particular emphasis is placed on building and maintaining a social media presence. Evaluation of and planning for effective campaigns is the goal. PREREQ: MKTG 2225. D

MKTG 4491 Seminar in Marketing: 3 semester hours.

Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 6 credits with permission of the instructor. PREREQ: At least Senior level and permission of instructor. D

MKTG 4492 Special Problems in Marketing: 2-3 semester hours.

Research and reports on selected problems or topics in marketing. May be repeated for up to 9 credits with different content and with permission of major advisor and the Dean. PREREQ: At least Senior level and permission of the Dean. D

MKTG 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Massage Therapy (MSTH)

Courses

MSTH 0100 Massage Therapy Career Exploration: 2 semester hours.

Gain knowledge of recognition, education, essential tasks, licensing requirements and self analysis of massage therapy as a career. S, Su

MSTH 0104 Introduction to Kinesiology: 3 semester hours.

Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. Equivalent to PTA 0104. PREREQ: Admission to the MSTH or PTA program. F

MSTH 0105 Principles of Therapeutic Massage: 2 semester hours.

History, requirements to practice, professionalism, ethics, sanitary and safety practices, effects, benefits, indications, contra-indications, equipment and products, policies, procedures, basic intake and consultation. PREREQ: Admission to MSTH program. F

MSTH 0107 Professional Massage Techniques: 6 semester hours.

Classification of movements, body mechanics, exercise for the practitioner, draping, basic and professional massage routines, hydrotherapy. Foundations for developing massage practitioner skills. Lab work is included in the course. PREREQ: Admission to MSTH program. F

MSTH 0121A Massage Therapy Lab I: 1 semester hour.

Students perform massage in a supervised clinical setting. PREREQ: Admission to MSTH program, MSTH 0100, HO 0111. COREQ: MSTH 0104, MSTH 0105, and MSTH 0107. F

MSTH 0121B Massage Therapy Lab II: 3 semester hours.

Students perform massage in a supervised clinical setting. PREREQ: Previous semester course sequence (see Plan of Study). COREQ: MSTH 0140 and MSTH 0160. S

MSTH 0140 Clinical Techniques and Assessment: 4 semester hours.

Clinical massage techniques and assessment. Lab work is included in the course. PREREQ: Previous semester course sequence (see Plan of Study). S

MSTH 0160 Advanced Therapeutic Massage Techniques: 4 semester hours.

Exploration of various advanced massage techniques. Lab work is included in the course. PREREQ: Previous semester course sequence (see Plan of Study). S

MSTH 0170 Spa Techniques: 2 semester hours.

Introduction to spa techniques and the spa environment. Lab work is included in the course. PREREQ: Admission to MSTH program. F

MSTH 0203 Asian Bodywork Theory and Techniques: 2 semester hours.

Basic Asian bodywork theory and technique. Lab work is included in the course. PREREQ: Previous semester course sequence (see Plan of Study). S

MSTH 0205 Case Report Research Project: 2 semester hours.

Massage therapy treatment implementation utilizing assessment tools, evidence-based treatments, communication skills, and critical thinking skills for a selected client. A research study project associated with the lab work is included in the course. PREREQ: Previous semester course sequence (see Plan of Study). S

MSTH 0210 Business Skills for Massage Therapy: 2 semester hours.

Business plans, accounting, record keeping, marketing advertising, office management, customer service, and resumes for the new massage therapist. PREREQ: Previous semester course sequence (see Plan of Study). F

MSTH 0230 Sports Massage: 2 semester hours.

Sports massage overview, applications, skills, benefits, rehabilitation, indications, contraindications, sports venues, events, business and ethical aspects. Field work is included. PREREQ: Previous semester course sequence (see Plan of Study). S

MSTH 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

MSTH 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Mathematics (MATH)

Courses

MATH 0015 Arithmetic and Pre-Algebra: 3 semester hours.

Arithmetic of integers and rational numbers. Decimals; introduction to variables; linear equations; problems involving rates, ratios, proportions and percentages. Not eligible for academic credit. F, S, Su

MATH 0025 Elementary Algebra: 3 semester hours.

Variables and algebraic expressions. Absolute value; linear equations and inequalities and their applications; expansion and factorization of polynomials; rational expressions; radical expressions; the real number line; the Cartesian coordinate system and graphing of linear equations. Equivalent to TGE 0100A. PREREQ: C- in MATH 0015, a Math ACT score of 16 or higher, or an SAT score of 390 or higher. F, S, Su

MATH 0090 Accelerated Mathematics Placement: 3 semester hours.

Self-paced alternative to any subsequence of MATH 0015, MATH 0025, MATH 1108, MATH 1143, or MATH 1144. Starting with MATH 0015, students sequentially complete modules and then take a mastery exam for each course. Scoring 90% or above on each exam earns placement equivalent to having passed the corresponding course. Intended for students with enough mathematics background to work independently. Credits earned do not count toward graduation credits. Graded S/U. F, S

MATH 0099 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MATH 1108 Intermediate Algebra: 4 semester hours.

Topics in algebra, with an emphasis on solving equations and inequalities. Systems of linear equations; quadratic equations and the quadratic formula; polynomial, absolute value, rational, and radical equations and inequalities. Radical and rational exponents. Parabolas, distance formula and circles. PREREQ: C- in MATH 0025, a Math ACT score of 17 or higher, or an SAT score of 420 or higher. F, S, Su

MATH 1123 Math in Modern Society: 3 semester hours.

Survey of applications of mathematics to real-world problems. Topics from graph theory, management science, political science, statistics, geometry, and computer science. PREREQ: MATH 0025. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1123P Mathematics in Modern Society Plus: 4 semester hours.

Variation of MATH 1123 in which students not placing into MATH 1123 receive supplemental instruction. PREREQ: ALEKS 14, ACT 16, SAT 430. Satisfies Objective 3 of the General Education Requirements. F, S

MATH 1127 The Language of Mathematics: 3 semester hours.

Introduction to the precise language used throughout mathematics. Development of skills including reading with comprehension, expressing mathematical thoughts clearly, reasoning logically, and employing common patterns of mathematical thought. PREREQ: MATH 0025. Satisfies Objective 3 of the General Education Requirements. S

MATH 1130 Finite Mathematics: 3 semester hours.

Introduction to probability, linear systems, inequalities, and linear programming. Applications directed to non-physical science areas. PREREQ: MATH 1108. Satisfies Objective 3 of the General Education Requirements. F, S

MATH 1143 College Algebra: 3 semester hours.

Functions and their graphs. Notation, domain, range, composition, and inverses. Basic transformations of graphs. Polynomial, rational, exponential, and logarithmic functions and their graphs, with applications. Theory of polynomial functions and equations. PREREQ: MATH 1108. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1144 Trigonometry: 2 semester hours.

Circular functions and right triangle approaches to trigonometry. Graphs of trigonometric functions: amplitude, frequency, phase shift. Trigonometric identities, inverse functions, and equations. Introduction to vectors in the plane, polar coordinates, and polar representation of complex numbers. PREREQ: MATH 1143. F, S, Su

MATH 1147 College Algebra and Trigonometry: 5 semester hours.

A single one-semester course equivalent to College Algebra (MATH 1143) plus Trigonometry (MATH 1144). Credit cannot be granted in both MATH 1143 and MATH 1147, or in both MATH 1144 and MATH 1147. Satisfies Objective 3 of the General Education Requirements. PREREQ: MATH 1108. F, S

MATH 1153 Statistical Reasoning: 3 semester hours.

Descriptive statistics, probability, confidence intervals, and hypothesis testing for one and two parameters. Emphasis on applications to a wide variety of disciplines. PREREQ: MATH 1108. Satisfies Objective 3 of General Education Requirements. F, S, Su

MATH 1153P Statistical Reasoning Plus: 4 semester hours.

Variation of MATH 1153 in which students not placing into MATH 1153 receive supplemental instruction. PREREQ: ALEKS 30, ACT 17, SAT 460. Satisfies Objective 3 of General Education Requirements. F, S

MATH 1160 Survey of Calculus: 3 semester hours.

Course in differential and integral calculus designed primarily for students in biological sciences, social sciences, business, education, and humanities. Credit cannot be granted in both MATH 1160 and MATH 1170. PREREQ: MATH 1143 or MATH 1147. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1170 Calculus I: 4 semester hours.

First course in the sequence MATH 1170, MATH 1175, and MATH 2275. Real-valued functions of one real variable: limits, continuity, derivatives, integrals, applications. Credit cannot be granted in both MATH 1160 and MATH 1170. PREREQ: MATH 1144 or MATH 1147. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1175 Calculus II: 4 semester hours.

Second course in the sequence MATH 1170, MATH 1175, and MATH 2275. Techniques of integration, trigonometric integrals, improper integrals. Applications of definite integrals. Sequences and series. Parametric curves in the plane, polar coordinates. PREREQ: MATH 1170. F, S, Su

MATH 1187 Applied Discrete Structures: 3 semester hours.

Discrete structures in CS and EE. Boolean algebra and logic; sets, functions, and relations; iteration, recursion, and induction; algorithms; programming in pseudocode; basic counting principles; graphs and trees; and other selected topics from discrete mathematics. Equivalent to CS 1187. PREREQ: CS 1181. S

MATH 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MATH 2240 Linear Algebra: 3 semester hours.

Introduction to linear algebra. Linear systems, matrices, determinants, vector spaces, linear transformations, linear independence, eigenvalues and eigenvectors, orthogonalization. PREREQ: MATH 1170. F, S, Su

MATH 2256 Structure of Arithmetic for Elementary School Teachers: 3 semester hours.

Development of number systems. Emphasis on principles, representations, and concept development. For elementary education majors. PREREQ: MATH 1143. Satisfies Objective 3 of the General Education Requirements. F

MATH 2257 Structure of Geometry and Probability for Elementary School Teachers: 3 semester hours.

Topics from geometry, probability, and statistics. Emphasis on principles, representations, and concept development. For elementary education majors. PREREQ: MATH 1143. Satisfies Objective 3 of the General Education Requirements. S

MATH 2275 Calculus III: 4 semester hours.

Third course in the sequence MATH 1170, MATH 1175, and MATH 2275. Multivariable calculus. Vector algebra and geometry. Functions of several variables. Differentiation. Optimization. Multiple Integrals. Parametric curves and surfaces. Line and surface integrals. Vector fields. Green's, Stokes', and divergence theorems. PREREQ: MATH 1175. F, S

MATH 2287 Foundations of Mathematics: 3 semester hours.

Logic and proofs, sets, functions, relations, mathematical induction, and the cardinality of sets. PREREQ: MATH 1170. D

MATH 3310 Mathematical Modeling: 3 semester hours.

Theory and practice of mathematical modeling. Development and analysis of models for solving open-ended problems in science and engineering. Discrete models, linear models and continuous models, and their implementation. PREREQ: MATH 1175 and either CS 1181 or ME 1165; or permission of instructor. D

MATH 3326 Elementary Analysis: 3 semester hours.

A beginning course in analysis on the real line. Proof writing and the underlying logic are emphasized throughout the course. Topics include sets and functions, sequences, convergence, limits, continuity, and infinite series. PREREQ: MATH 1175 and either MATH 2240 or MATH 2287. F, S

MATH 3327 Vector Analysis: 3 semester hours.

Calculus of vector functions of several variables, derivative matrix, chain rule, inverse function theorem, multiple integration. Change of variables. Integrals over curves and surfaces. Green's, Stokes' and divergence theorems. Applications to physics. PREREQ: MATH 2275. F

MATH 3335 Elementary Number Theory: 3 semester hours.

Divisibility, prime numbers, congruences, Diophantine equations and other topics. PRE-REQ: MATH 2287 or permission of instructor. D

MATH 3343 Modern Geometry I: 3 semester hours.

Planar Euclidian geometry. Rigid motions and symmetry in the plane. PREREQ: MATH 2240 or MATH 2287. F

MATH 3350 Statistical Methods: 3 semester hours.

A calculus-based introduction to statistical procedures, including simple regression, basic experimental design, and non-parametric methods. PREREQ: MATH 1160 or MATH 1170. F, S

MATH 3352 Introduction to Probability: 3 semester hours.

Fundamentals of probability, discrete and continuous random variables, distributions such as binomial, uniform, Poisson, hypergeometric, normal, gamma; expectation; joint, marginal, conditional distributions; central limit theorem; applications to statistics. Emphasizes material needed to develop statistical inference methods. PREREQ: MATH 1175 or permission of instructor. F, S

MATH 3360 Differential Equations: 3 semester hours.

Theory and applications of ordinary differential equations. First order equations, higher order linear equations, systems, Laplace transforms, power series methods. PREREQ: MATH 1175; MATH 2240 or MATH 2275 recommended. F, S

MATH 3362 Introduction to Complex Variables: 3 semester hours.

Introduction to the study of functions of a complex variable including the algebra and geometry of complex numbers, analytic functions, power series, integral theorems, and applications. PREREQ: MATH 2275. F

MATH 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MATH 4403 Survey of Combinatorics and Graph Theory: 3 semester hours.

Enumeration techniques, including generating functions. Applications. Introductory graph theory. PREREQ: MATH 1175 and MATH 2240. D

MATH 4404 Topics in Combinatorics and Graph Theory: 3 semester hours.

Continuation of MATH 4403. Application of algebraic, analytic, and/or probabilistic methods to combinatorial, graph-theoretic, and algorithmic problems. PREREQ: MATH 4403 or permission of instructor. D

MATH 4405 Numerical Linear Algebra: 3 semester hours.

Numerical techniques for problems in linear algebra, including solutions of linear systems, least squares, eigenvalue problems, and other topics with an emphasis on computation and applications. PREREQ: MATH 2240 and either ME 1165 or CS 1181; or permission of the instructor. D

MATH 4406 Advanced Linear Algebra: 3 semester hours.

Advanced linear algebra with a strong emphasis on proof. Real and complex vector spaces, linear transformations, polynomials associated to matrices, determinants, canonical forms, inner product spaces. PREREQ: MATH 2240. D

MATH 4407 Modern Algebra I: 3 semester hours.

Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 2240 and MATH 2287. F

MATH 4408 Modern Algebra II: 3 semester hours.

Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 4407. S

MATH 4421 Advanced Engineering Mathematics I: 3 semester hours.

Analysis of complex linear and nonlinear engineering systems using advanced techniques, including Laplace transforms, Fourier series and classical partial differential equations. PREREQ: MATH 3360. F

MATH 4422 Advanced Engineering Mathematics II: 3 semester hours.

Analysis of complex linear and nonlinear engineering systems using advanced techniques, including probability and statistics, advanced numerical methods and variational calculus. PREREQ: MATH 4421. S

MATH 4423 Introduction to Real Analysis I: 3 semester hours.

The real number system, topology of metric spaces, sequences, limits, series of functions and convergence, continuity, theory of differentiation and Riemann integration of functions of one variable and several variables, and selected topics on measure theory and integration. PREREQ: MATH 2240, MATH 3326, and MATH 3360. F

MATH 4424 Introduction to Real Analysis II: 3 semester hours.

The real number system, topology of metric spaces, sequences, limits, series of functions and convergence, continuity, theory of differentiation and Riemann integration of functions of one variable and several variables, and selected topics on measure theory and integration. PREREQ: MATH 4423. S

MATH 4441 Introduction to Numerical Analysis I: 3 semester hours.

Introduction to numerical techniques for solving problems dealing with nonlinear equations, systems of linear equations, differential equations, interpolation, numerical integration, and differentiation. PREREQ: MATH 2240, MATH 3326, and MATH 3360 or permission of instructor. F

MATH 4442 Introduction to Numerical Analysis II: 3 semester hours.

Extension of MATH 4441 for students who wish to pursue more advanced techniques with emphasis on analysis. Typical topics covered include numerical methods applied to partial differential equations, integral equations, and in-depth treatment of topics covered in MATH 4441. PREREQ: MATH 4441. S

MATH 4444 Modern Geometry II: 3 semester hours.

Transformation groups. Topics from hyperbolic, projective, and other geometries. D

MATH 4450 Mathematical Statistics I: 3 semester hours.

Probability, random variables, discrete and continuous distributions, order statistics, limit theorems, point and interval estimation, uniformly most powerful tests, likelihood ratio tests, chi-square and F tests, nonparametric tests. PREREQ: MATH 3326 and MATH 3352. F

MATH 4451 Mathematical Statistics II: 3 semester hours.

Probability, random variables, discrete and continuous distributions, order statistics, limit theorems, point and interval estimation, uniformly most powerful tests, likelihood ratio tests, chi-square and F tests, nonparametric tests. PREREQ: MATH 4450. S

MATH 4453 Topics in Statistics: 1-3 semester hours.

Content varies. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

MATH 4457 Applied Regression Analysis: 3 semester hours.

Simple and multiple linear regression, polynomial regression, diagnostics, model selection, models with categorical variables. PREREQ: MATH 3350 or MATH 3352 or permission of instructor. D

MATH 4458 Experimental Design: 3 semester hours.

The linear model for experimental designs, analysis of variance and covariance, block designs, factorial designs, nested designs, choice of sample size. PREREQ: MATH 3350 or MATH 3352 or permission of instructor. D

MATH 4459 Applied Multivariate Analysis: 3 semester hours.

Matrix computation of summary statistics, graphical analysis of multivariate procedures, multivariate normal distribution, MANOVA, multivariate linear regression, principal components, factor analysis, canonical correlation analysis. PREREQ: MATH 2240 and one of the following: MATH 3350, MATH 4457, MATH 4458, or permission of instructor. D

MATH 4463 Topics in Applied Mathematics: 1-3 semester hours.

Topics that deal with mathematical methods that find use in other disciplines, business, and industry. PREREQ: Permission of instructor. D

MATH 4465 Partial Differential Equations: 3 semester hours.

Equations of the first and second orders, methods of solution, Laplace's Equation, heat equation, and wave equation. Emphasis on applications in physical sciences and engineering. PREREQ: MATH 2275 and MATH 3360. D

MATH 4481 Directed Readings and Problems: 1-3 semester hours.

Individual work under the direction of a professor. May be repeated for up to 6 credits. PREREQ: Senior or graduate student in good standing. D

MATH 4491 Mathematics Seminar: 1-3 semester hours.

Advanced reading and discussion on selected topics in mathematics. May be repeated. PREREQ: 90 credits or equivalent. D

MATH 4494 Undergraduate Research: 1-3 semester hours.

Students will engage in a directed research project culminating in a formal written report. PREREQ: Permission of instructor. D

MATH 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Mechanical Engr (ME)

Courses

ME 1105 Solid Modeling: 2 semester hours.

Introduction to the fundamentals of Solid Modeling. Sketching, features, modeling, assemblies and drawings. Minimum grade C-. PREREQ: MATH 1147. F, S

ME 1165 Structured Programming: 2 semester hours.

Introduces concepts of structured programming via top-down design concepts, in an interpreted programming environment. Covers conditionals, loop structures, function modules, array processing, structures, input and output of data, and graphical visualization, with applications to engineering problems. Minimum grade C-. PREREQ: MATH 1170. F, S

ME 2210 Engineering Statics: 3 semester hours.

Concepts of force vectors and equilibrium with emphasis on free body diagrams. Trusses, beams, frames, centroids, fluid statics, and friction. Equivalent to CE 2210. PRE-or-COREQ: CE 1105 or ME 1105 (Minimum grade of C- or better required for ME 1105); PHYS 2211; and MATH 1175. F, S

ME 2220 Engineering Dynamics: 3 semester hours.

Principles of kinetics. Angular and linear displacement, velocity, and acceleration analysis. Rigid bodies in motion and types of motion. Application of principles of force-mass acceleration, work-kinetic energy, and impulse-momentum to solution of problems of force systems acting on moving particles and rigid bodies. Equivalent to CE 2220. PREREQ: ME 2210 or CE 2210, PHYS 2211, CE 1105 or ME 1105, and MATH 1175. F, S

ME 2266 Symbolic Programming: 1 semester hour.

Introduces a symbolic programming language, with emphasis on algebraic, calculus, and linear algebraic manipulations and visualization, with engineering applications. PREREQ: MATH 1175. PRE-or-COREQ: ME 1165 (Minimum grade of C- or better required for ME 1165) and MATH 2240. S

ME 3307 Thermodynamics: 3 semester hours.

Fundamental concepts of thermal energy equations. Applications to ideal and real gases, liquids, and solids in static and transient systems. PRE-or-COREQ: MATH 2275. PREREQ: ME 2220. F, S

ME 3320 Kinematics and Dynamics of Machinery: 3 semester hours.

Kinematic analysis of cams, gears, and linkages; velocity, acceleration and force analysis; kinematic synthesis and design of mechanisms; balancing; computer-aided analysis and synthesis. PRE-or-COREQ: MATH 2275. PREREQ: ME 1165, ME 2220, and MATH 2240. F

ME 3322 Mechanical Engineering Materials: 3 semester hours.

Material properties, metals, alloys, phase diagrams, heat treatment, material testing and material applications. PRE-or-COREQ: CE 3350 or ME 3350. PREREQ: CE 2210 or ME 2210, MATH 1175, CHEM 1111 and CHEM 1111L. F, S

ME 3323 Machine Design: 3 semester hours.

Design of mechanical components subject to static and fatigue loads. Design using screws, fasteners, springs, bearings, and welds. Computer-aided design using finite element methods. PREREQ: CE/ME 3350. PRE-or-COREQ: ME 3322 and ME 3320. F

ME 3325 Advanced Machine Design: 3 semester hours.

Statistical methods for design, failure analysis, advanced machine component design. PREREQ: ME 3320 and ME 3323. S

ME 3341 Fluid Mechanics: 3 semester hours.

Fluid statics, incompressible fluid flow, open channel flow, compressible fluid flow, pipe flow, flow measurements, pumps, valves, other devices. Equivalent to CE 3341. PREREQ: ME 2220 and MATH 3360. F, S

ME 3350 Mechanics of Materials: 3 semester hours.

Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. Equivalent to CE 3350. PREREQ: CE 2210 or ME 2210, PHYS 2211, CE 1105 or ME 1105, and MATH 1175. F, S

ME 3353 Manufacturing Processes: 3 semester hours.

Production techniques and equipment. Casting, molding, pressure forming, metal removal, joining and assembly, automation and materials handling. Field Trips. PREREQ: ME 2222. D

ME 3355 System Dynamics: 3 semester hours.

Modeling and representations of dynamic 3-dimensional physical systems emphasizing rigid bodies: transfer functions, block diagrams, state equations. Transient response. PREREQ: ME 2220 and MATH 3360. D

ME 4405 Measurement Systems Design: 3 semester hours.

Introduction to instrumentation systems analysis and design, including statistical analysis, system modeling, actuators, transducers, sensor systems, signal transmission, data acquisition, and signal conditioning. PREREQ: MATH 3360. D

ME 4406 Measurement Systems Laboratory: 1 semester hour.

Principles of measurement, measurement standards and accuracy, detectors and transducers, digital data acquisition principles, signal conditioning systems and readout devices, statistical concepts in measurement, experimental investigation of engineering systems. PREREQ: MATH 3360 and EE 2240. S

ME 4415 Model Theory: 3 semester hours.

Theory of design and testing of scaled system models. Dimensional analysis with application to physical models. True and distorted models, linear and nonlinear models and analogies. Laboratory work required. Equivalent to ENGR 4415. PREREQ: ME 3341 and CE/ME 3350. D

ME 4416 Thermal Power Cycles: 3 semester hours.

Application of thermodynamics to design of systems for conversion of thermal energy to power by various power cycles. PREREQ: ME 3307. D

ME 4424 Introduction to Robotics: 3 semester hours.

Overview of robotic systems. Kinematics, dynamics and motion planning for serial, parallel, and mobile robots. Motion simulation, control, and programming. Prereqs: ME 1165 or CS 1181 (for EE students), MATH 2240, PHYS 2211

ME 4425 Mechatronics: 3 semester hours.

Basic kinematics, sensors, actuators, measurements, electronics, microprocessors, programmable logic controllers, feedback control, robotics and intelligent manufacturing. PRE-or-COREQ: ME 4406 or EE 4473 and PREREQ: MATH 3360. D

ME 4435 Computer Simulation: 3 semester hours.

Basic Finite Element Analysis (FEA), Excel and SolidWorks simulation for static and dynamic analysis of mechanical design components, and thermal fluid systems analysis. PREREQ: ME 4476, ME 4440, permission of instructor. D

ME 4440 Vibration Analysis: 3 semester hours.

Free vibration and forced response of single and multiple degree of freedom systems, normal modes, random vibrations, discrete, lumped mass, and continuous systems. Vibration control techniques. PREREQ: MATH 2275 and MATH 3360. PRE-or-COREQ: ME 3325. F

ME 4443 Thermal Fluids Laboratory: 1 semester hour.

Measurement of thermal and fluid properties, experiments on fluid flow and heat transfer systems. PREREQ: ME 3307, CE/ME 3341, and ME 4476. F

ME 4451 Compressible Fluid Flow: 3 semester hours.

Fundamentals and practical applications of compressible fluid flow and gas dynamics; techniques for isentropic friction, heat addition, isothermal flow, shock wave analysis, propagation, expansion waves, reflection waves. PREREQ: ME 3307 and ME 3341. D

ME 4463 Mechanical Systems Design: 3 semester hours.

Application of engineering concepts and principles to the design of mechanical systems, including economic, environmental, sustainability, and societal considerations. PREREQ: ME 3320, ME 3323, ME 3325, and ME 4440. S

ME 4464 Engineering Numerical Techniques: 3 semester hours.

Numerical methods for solving linear and nonlinear systems of equations, data fitting and smoothing, numerical integration and differentiation, initial and boundary value problems, and optimization. Stresses engineering applications and programming projects. PREREQ: ME 1165, MATH 2240, MATH 2275, and MATH 3360. D

ME 4465 Thermal Fluid System Design: 3 semester hours.

Application of engineering concepts and principles to the design of thermal and fluid systems, including economic, environmental, sustainability, and societal considerations. PREREQ: ME 3307, CE/ME 3341, and ME 4476. F

ME 4473 Mechanical Control Systems: 3 semester hours.

Discrete and continuous time control system design, signal processing, embedded systems. PREREQ: ME 2220, EE 2240, PHYS 2212, MATH 3360, and ME 4440. S

ME 4476 Heat Transfer: 3 semester hours.

Principles and engineering applications of heat transfer. Analysis of conduction, convection and radiation heat transfer. Design of heat exchangers. PREREQ: ME 3307. PRE-or-COREQ: CE/ME 3341. S

ME 4480 Mechanical Engineering Seminar: 1 semester hour.

Project management, conceptual design, industry interaction, current topics in Mechanical Engineering. PREREQ: Approval of application for admission to course. F

ME 4481 Independent Problems: 1-3 semester hours.

Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. PREREQ: Permission of instructor. D

ME 4495 Mechanical Engineering Practice: 1 semester hour.

For students who have an approved internship. A final report is required including a discussion of the following elements: detailed description of internship project, project management skills developed, engineering design performed. PREREQ: Approval of internship application. D

ME 4496 Project Design: 3 semester hours.

The course is designed to give student teams experience solving an engineering problem involving the synthesis of a solution to meet the specified design requirements. PREREQ: CE 3360. S

ME 4496A Project Design I: 3 semester hours.

Semester one of a two semester sequence dealing with the conceptual design of multi-disciplinary projects requiring multi-disciplinary teams. PREREQ: Approval of application for admission to course. PRE-or-COREQ: CE 3360 or CE 3361. F

ME 4496B Project Design II: 3 semester hours.

Continuation of design sequence dealing with the design, analysis, implementation, and consequences of multi-disciplinary projects. PREREQ: ME 4496A. S

ME 4499 Experimental Course: 1-3 semester hours.

This is an experimental course. The course title and number of credits are noted by course section and announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. May be repeated.

Med Assisting (MA)

Courses

MA 0104 Introduction to Medical Assisting Administrative: 4 semester hours.

An introduction to the administrative skills and functions of the Medical Assistant in the medical office, which include: communications, appointment scheduling, accounting, insurance processing, and management skills. PREREQ: Previous semester course sequence. S

MA 0200 Clinical Medical Assisting I: 4 semester hours.

Basic clinical procedures: taking and recording vital signs, histories, and chief complaints; asepsis; OSHA standards; health maintenance; disinfection and sterilization procedures; inventorying and ordering medical supplies; maintaining equipment; therapy modalities; preparing patients for exams; CPR and First Aid; patient education. PREREQ: Previous semester course sequence. F

MA 0202 Administration of Medications and Phlebotomy: 4 semester hours.

Covers routes of administration and the proper delivery of medication by those routes. Medications and rules of administration are discussed. Includes phlebotomy skills and safety requirements for hematology, chemistry, and serology. Principles and theory of IV Therapy are also covered. PREREQ: Previous semester course sequence. S

MA 0203 Computers in Medical Assisting Administrative: 6 semester hours.

Data entry of patient information, accounting, scheduling, insurance filing. Complete, accurate computer accounting process. Simulated computer exercises in functions pertaining to the medical office. Abstracting patient information from medical records and using electronic medical records and templates to manage patient health records. PREREQ: Previous semester course sequence. S

MA 0204 Clinical Externship: 6 semester hours.

Application of the principles and practice of medical assisting in an external learning environment/externship of a medical practice under the supervision of a physician and the medical practice staff. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). F, S

MA 0204S Clinical Externship Seminar: 1 semester hour.

Extension of the clinical externship; students meet for one hour each week to discuss experiences and progress with their clinical advisor and other students. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). COREQ: MA 0204. F, S

MA 0205 Clinical Medical Assisting II: 4 semester hours.

Assisting with minor surgery and office procedures; applying dressings, bandages, casts, and sutures; scheduling radiology and patient preparation; diagnostic CLIA and screening; collecting specimens; OSHA regulations. S

MA 0206 Administrative Externship: 2 semester hours.

Application of the principles and practice of the administrative clerical functions of a medical office in an external learning/externship environment under the supervision of a physician and the business management staff. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). COREQ: MA 0206S. F, S

MA 0206S Externship Seminar: 1 semester hour.

Extension of MA 0206. Discuss experiences and progress with advisor and other students. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). COREQ: MA 0206. F, S

MA 0207 Professional Development: 1 semester hour.

Principles and applied techniques for Medical Assisting professional career development. Preparation for transition from school to the work place. PREREQ: Previous semester course sequence, and BT 0170. S

MA 0208 Clinical Medical Assisting III: 4 semester hours.

Vital signs, asepsis, and health maintenance; charting, patient education; assisting with specialty examinations in pediatrics, OB/GYN, cardiology, pulmonary, gastroenterology, eyes, ears, nose, and throat. PREREQ: MA 0205; previous semester course sequence. F

MA 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

MA 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

MA 0299 Experimental Course: 1-6 semester hours.

Medical Lab Science (MLS)

Courses

MLS 4410 Phlebotomy Practicum: 1 semester hour.

Introduction to the theory and procedures for the practice of phlebotomy and simple laboratory testing. Part of the Medical Laboratory Science Core Curriculum, also suited for other health care providers. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4412 Urinalysis and Body Fluids: 1 semester hour.

Fundamental principles of urine and body fluid analysis with correlation of laboratory methods and practice. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4414 Hematology and Hemostasis: 3 semester hours.

Theoretical and applied aspects of medical hematology and hemostasis with emphasis on recognition and correlation of abnormal laboratory observations with pathological conditions. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4416 Medical Microbiology I: 3 semester hours.

Study and identification of medically important bacteria, viruses, fungi, chlamydiae, rickettsiae, and parasites as applicable to laboratory and infection control settings. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4418 Medical Chemistry and Instrumentation: 3 semester hours.

Theoretical and applied aspects of medical chemistry with emphasis on test development, validation, and use in diagnosis and management of pathological conditions. Graduate students will prepare, conduct and evaluate case study sessions. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4420 Medical Immunology: 2 semester hours.

Practical aspects of immunology with emphasis on pathological conditions and laboratory practice. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4422 Basic Concepts in Transfusion Medicine: 2 semester hours.

Practical aspects and theoretical considerations of major blood groups with respect to transfusion therapy. Oral and written project presentation required for graduate credit. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4424 Medical Laboratory Fundamentals: 1 semester hour.

Theory and application of basic techniques and instruments used in all areas of medical laboratories. PREREQ: Acceptance into the Medical Laboratory Science Program. F

MLS 4431 Medical Microbiology II: 3 semester hours.

Advanced topics in medical microbiology including application of laboratory techniques to the identification and evaluation of medically important pathogens and correlations with disease states. PREREQ: MLS 4416 and acceptance into the Medical Laboratory Science Program. S

MLS 4433 Medical Laboratory Science Management and Education: 2 semester hours.

Advanced principles of current personnel, financial, regulatory issues, laboratory information systems, management, and education. Student presentations will be required. Students taking the course for graduate credit will prepare, conduct, and evaluate a project. PREREQ: Acceptance into the Medical Laboratory Science Program. S

MLS 4435 Molecular Diagnosis: 3 semester hours.

A comprehensive overview of the fundamental principles of medical molecular diagnostics and use of molecular techniques in the diagnosis of disease. Topics include: Nucleic acid structure and function, genetics, DNA chemistry, introduction to nucleic acid isolation, identification and amplification techniques. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into the Medical Laboratory Science Program. S

MLS 4437 Critical Analysis of Lab Information: 3 semester hours.

Evaluation of clinical laboratory values with emphasis on advanced methods, specialized statistics, algorithm building, and clinical correlations. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into the Medical Laboratory Science Program. S

MLS 4439 Advanced Concepts in Transfusion Medicine: 2 semester hours.

Advanced topics in Immunohematology. Application of laboratory techniques to the identification and evaluation of antibodies and antigens. Emphasis on transfusion therapy. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: MLS 4422 and acceptance into the Medical Laboratory Science Program. S

MLS 4441 MLS Research: 1-3 semester hours.

Individual theory and application of related topics associated with the medical laboratory. PREREQ: Acceptance into the Medical Laboratory Science Program. S

MLS 4455 MLS Student Laboratory Practices: 2 semester hours.

Directed practice in the advanced tests and techniques in common use in the medical laboratory (including molecular biology, microbiology, hematology, chemistry, blood bank). PREREQ: Acceptance into the Medical Laboratory Science Program. S

MLS 4482 Independent Problems in MLS: 1-3 semester hours.

Individual work under staff guidance. Research on specific educational problems of interest to majors in Medical Laboratory Science. Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 3 credits. D

MLS 4490 General Site Practicum: 1-6 semester hours.

Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

MLS 4491 Microbiology Practicum: 2 semester hours.

Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

MLS 4492 Hematology and Urinalysis Practicum: 2 semester hours.

Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

MLS 4493 Transfusion Blood Bank Practicum: 1 semester hour.

Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

MLS 4494 Chemistry and Automation Practicum: 1 semester hour.

Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

MLS 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Military Sci and Leadership (MSL)

Courses

MSL 1101 Leadership and Personal Development: 2 semester hours.

Introduces personal challenges and competencies critical for effective leadership. Learn life skills such as critical thinking, goal setting, time management, physical fitness, and stress management, as related to leadership, officership, and the Army profession. Develop basic knowledge and comprehension of Army leadership dimensions, the ROTC program, its purpose, and its advantages. COREQ: MSL 1101L. F

MSL 1101L Leadership and Personal Development Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 1101. F

MSL 1102 Introduction to Tactical Leadership: 2 semester hours.

Setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Students explore dimensions of leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises. Explore in more detail the Army's leadership philosophy and learn fundamental military concepts. COREQ: MSL 1102L. S

MSL 1102L Introduction to Tactical Leadership Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 1102. S

MSL 1104 Ranger Challenge: 1 semester hour.

Students are instructed in basic military/survival skills: field expedient bridging, marksmanship, individual weapons familiarization, individual tactical movement, and physical readiness. Culminates in team competitions with other universities. May be repeated for up to 4 credits by Military Science students. F

MSL 1110 Military Style Physical Fitness Civilian Only: 1 semester hour.

Participate in and learn to lead a physical fitness program. Emphasis on developing an individual fitness program and the role of exercise and fitness in one's life. Equivalent to PEAC 1110. F, S

MSL 2201 Innovative Team Leadership: 3 semester hours.

Explore creative and innovative tactical leadership strategies and styles; examine team dynamics and two historical leadership theories. Includes planning, executing and assessing team exercises and participating in leadership labs as well as land navigation and squad tactics. COREQ: MSL 2201L. F

MSL 2201L Innovative Team Leadership Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 2201. F

MSL 2202 Foundations of Tactical Leadership: 3 semester hours.

Terrain analysis, patrolling, operation orders, and other challenges of leading tactical teams in the contemporary operating environment (COE). Students assess their own leadership styles and practice communication and team building. COE case studies reflect the importance and practice of teamwork and tactics in real-world scenarios. COREQ: MSL 2202L. S

MSL 2202L Foundations of Tactical Leadership Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 2202. S

MSL 2290 ROTC Leaders Training Course: 6 semester hours.

5-week summer course taken at Fort Knox, KY provides an introduction to military science for students having little or no military experience. Provides experiences in management, teaching, first aid, physical conditioning. Qualifies student for ROTC Advanced Course. PREREQ: Permission of Chair. F

MSL 3301 Adaptive Technical Leadership: 4 semester hours.

Study, practice, develop, and evaluate adaptive leadership skills using squad tactical operations scenarios and systematic feedback on leadership attributes and actions. Cadets develop tactical leadership abilities to enable success at the summer Leadership Development and Assessment Course. PREREQ: Contracted MLS student. COREQ: MSL 3301L. F

MSL 3301L Adaptive Team Leadership Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 3301. F

MSL 3302 Leadership in Changing Environments: 4 semester hours.

Intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Review aspects of combat, stability, and support operations; conduct military briefings; develop operation orders. Explore, evaluate, and develop skills in decision-making, persuading, and motivating team members in the COE. PREREQ: MSL 3301. COREQ: MSL 3302L. S

MSL 3302L Leadership in Changing Environments Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 3302. S

MSL 3310 ROTC Physical Fitness: 1 semester hour.

Participate in, plan and lead physical fitness programs. Develop the physical fitness requirements of an officer in the Army. Emphasis on developing an individual fitness program and the role of exercise and fitness in one's life. May be repeated for up to 8 credits by contracted Military Science students. COREQ: Enrolled in MSL class. F, S

MSL 3320 Leadership in US Military History: 3 semester hours.

Introduction to American military experience. Personal and military examples of changes made as a result of lessons learned from history. Accounts from major wars and battles throughout U.S. history are described to focus on how leadership decisions affected the success or failure of military operations. PREREQ: Contracted student or permission of Instructor. F, S

MSL 3380 ROTC Nurse Seminar Training: 3 semester hours.

Clinical leadership experience with an Army Nurse Corps preceptor at an Army hospital in the US or overseas after completion of Leader Development and Assessment Course (MSL 3390). PREREQ: MSL 3390 and one clinical nursing course. F

MSL 3390 Leader Development and Assessment Course LDAC: 6 semester hours.

Culmination of MSL 3301 and MSL 3302; Leader Development and Assessment Course at Fort Lewis, Washington. Required of all contracted students, normally between junior and senior years. PREREQ: MSL 3301 and MSL 3302. F

MSL 4401 Developing Adaptive Leaders: 4 semester hours.

Develop proficiency in planning, executing, and assessing complex operations, and in functioning as a member of a staff. Provide performance feedback to subordinates by assessing risk, making ethical decisions, and leading fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to becoming officers. PREREQ: MSL 3301 and MSL 3302. COREQ: MSL 4401L. F

MSL 4401L Developing Adaptive Leaders Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 4401. F

MSL 4402 Leadership in a Complex World: 4 semester hours.

Explore dynamics of leading in complex situations of current military operations in the COE. Examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. Explore aspects of interacting with non-government identities/civilians on the battlefield. PREREQ: MSL 4401. COREQ: MSL 4402L. S

MSL 4402L Leadership in a Complex World Laboratory: 0 semester hours.

Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 4402. S

MSL 4492 Military Science Internship: 6 semester hours.

Apply skills learned in MSL program. PREREQ: Permission of Chair. COREQ: Simultaneous membership in ROTC and Army Reserves/National Guard. S

MSL 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Museum (MUSE)

Courses

MUSE 4411 Introduction to Museum Studies: 2 semester hours.

History, philosophy, purposes, organization and administration of museums. Practical work incollections management and museum interpretation. D

MUSE 4412 Advanced Topics in Museum Studies: 3 semester hours.

Study and analysis of selected, varying advanced topics in museum studies. Emerging issues in museum professional practice. Students will explore the chosen topics through current research, theory, and best practice in museums. Potential topics include: conservation and preservation, documentation, funding sources, legal and ethical issues, security, standards, education, or technology. May be repeated with different content for a total of 6 credits. PREREQ: MUSE 4411. F, S, Su

MUSE 4450 Independent Study in Museum Methods: 1-3 semester hours.

Individual projects based on student's background and interests. Could include, but not limited to, advanced work in collections management, exhibit design andconstruction, museum education, or administration. May be repeated up to 6 credits. PREREQ: MUSE 4411 or permission of instructor. D

MUSE 4451 Internship in Museum Studies: 3-6 semester hours.

Supervised internship in museum studies where students work with faculty and museum staff on a specific set of museum activities. The internship potential encompasses, but is not limited to: practica in anthropology/archaeology, paleontology, geology, biology, and education. The internship would include investigation of best practice in museum documentation, collections care, archival care, database development, conservation of objects, educational practice in the museum setting, exhibition practice in museum setting, and the development of specific faculty and student-selected practicum experiences. May be repeated for a total of 6 credits. F, S, Su

MUSE 4460 Museum Field Research: 3-6 semester hours.

Supervised fieldwork in museum field studies in a given museum research field setting where students and faculty work on a specific set of field problems. Research potential encompasses, but is not limited to: field research in anthropology, at specific archaeological, paleontological, geological, or biological sites, or in an interdisciplinary field setting. May also include investigation of best practice in museum documentation, collections care, archival care, database development, conservation of objects, education in the museum setting, exhibition practice in museum setting, and research into specific faculty and student-selected research topics. May be repeated with different content for a total of 12 credits. PREREQ: Permission of instructor. F, S, Su

MUSE 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Music (MUSC)

Courses

MUSC 1102 Elements of Music: 2 semester hours.

Introductory course for non-majors or prospective majors covering music reading/notation and elementary music theory. Music performance skills are not a prerequisite. D

MUSC 1103 Theory of Music I: 3 semester hours.

Melodic and harmonic part writing and basic analysis. Majors who have not passed piano proficiency should register concurrently with class piano MUSC 1118 and MUSC 1119 or MUSC 2218 and MUSC 2219. PREREQ: MUSC 1102 or equivalent. F

MUSC 1104 Theory of Music II: 3 semester hours.

Continuation of MUSC 1103. PREREQ: MUSC 1103 and MUSC 1113. S

MUSC 1107 Recital Attendance: 0 semester hours.

Attendance at weekly recital hour and prescribed number of evening concerts. Enrollment in this course is required of all students taking applied lessons numbered 1121-4485. Graded S/U. F, S

MUSC 1113 Aural Skills I: 1 semester hour.

Development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music I. PREREQ: MUSC 1102 or equivalent. F

MUSC 1114 Aural Skills II: 1 semester hour.

Continued development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music II. PREREQ: MUSC 1103 and MUSC 1113. S

MUSC 1118 Class Piano I: 1 semester hour.

Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 1103. F

MUSC 1119 Class Piano II: 1 semester hour.

Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 1104. S

MUSC 1125 Beginning Guitar Class: 1 semester hour.

Basic guitar technique and repertoire. Open to any student. Students must provide their own guitars. F, S

MUSC 1126 Intermediate Guitar Class: 1 semester hour.

Intermediate guitar technique and repertoire. Open to any student. Students must provide their own guitars. F, S

MUSC 1127 Class Voice: 1 semester hour.

Basic singing technique and vocal repertoire. Open to any student, including elementary education majors completing requirements. F, S

MUSC 2203 Theory of Music III: 3 semester hours.

Continued development in aural and visual perception through analysis and writing of 18th, 19th, and 20th century styles. PREREQ: MUSC 1104 and MUSC 1114. F

MUSC 2204 Theory of Music IV: 3 semester hours.

Continuation of MUSC 2203. PREREQ: MUSC 2203 and MUSC 2213. S

MUSC 2213 Aural Skills III: 1 semester hour.

Continued development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music III. PREREQ: MUSC 1104 and MUSC 1114. F

MUSC 2214 Aural Skills IV: 1 semester hour.

Continued development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music IV. PREREQ: MUSC 2203 and MUSC 2213. S

MUSC 2218 Class Piano III: 1 semester hour.

Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 2203. F

MUSC 2219 Class Piano IV: 1 semester hour.

Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 2204. S

MUSC 2225 Voice Diction: 2 semester hours.

Principles of voice diction with emphasis on English and Italian. AF

MUSC 2233 Music Methods for Elementary Teachers: 2 semester hours.

Methodology/materials for teaching elementary school music. Basic skills for the classroom teacher include: basic notation, conducting, autoharp, Orff instruments, piano, recorder, guitar, singing, listening. Two lectures, one lab per week. F, S, Su

MUSC 2235 Singing for Actors: 2 semester hours.

Introduction to sound vocal technique and basic musicianship through the study of folk song and musical theater repertoire. Selecting and preparing audition repertoire. Vocal health issues. AF

MUSC 2252 Introduction to Music Education: 1 semester hour.

An introduction to music education philosophy, psychology, and history, and a survey of music education approaches. Requires nine hours of classroom observations. D

MUSC 2255 Woodwind Methods: 2 semester hours.

Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching students to play woodwind instruments in band/orchestra. R1

MUSC 2256 Brass Methods: 2 semester hours.

Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching students to play brass instruments in band/orchestra. R1

MUSC 2258 Percussion Methods: 2 semester hours.

Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching students to play percussion instruments in band/orchestra. R1

MUSC 2259 String Methods: 2 semester hours.

Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching players of stringed instruments in band/orchestra. R1

MUSC 3304 Music History I: 3 semester hours.

Study of music and the development of Western art music from ancient times to circa 1750. Examination of major trends, including chant and song in the Middle Ages, Ars Antiqua, Ars Nova, Burgundian Music, the Renaissance, and the Baroque. PREREQ: ENGL 1102, MUSC 2203, and either MUSC 1100 or MUSC 1108. S

MUSC 3305 Music History II: 3 semester hours.

Study of Western art music during the Pre-classic, Classic and Romantic periods. Examination of major trends and philosophies including the Enlightenment, Romanticism and Nationalism. PREREQ: ENGL 1102, MUSC 2203, and either MUSC 1100 or MUSC 1108. F

MUSC 3306 Music History III: 3 semester hours.

Study of music in Europe and America from Post-Romanticism to the present. Examination of major trends, including impressionism, expressionism, serialism, jazz, the avant-garde, neo-classicism, neo-romanticism, and post-modernism. PREREQ: ENGL 1102, MUSC 2204, and either MUSC 1100 or MUSC 1108, or permission of instructor. S

MUSC 3311 Form and Analysis: 2 semester hours.

Analysis and study of standard compositions from the Renaissance to the 20th century with emphasis on structural, stylistic, and historical aspects. PREREQ: MUSC 2203 and MUSC 2204. F

MUSC 3312 Music Technology: 2 semester hours.

Introduction to music technology concepts using computers and MIDI instruments. Includes computer accompaniments, improvisation and development of creativity. PREREQ: MUSC 1103 or permission of instructor. D

MUSC 3313 Recording Technology: 2 semester hours.

This course provides hands-on opportunity in learning how to operate a modern recording studio. Course includes general recording, microphone skills, post production skills, editing and mixing, and more. PREREQ: MUSC 3312 D

MUSC 3314 Jazz Improvisation I: 1 semester hour.

An introduction to the art of improvisation through theory and analysis, performance, history, educational techniques, and ear training. Includes an introduction to improvisational techniques used in world music traditions. Proficient knowledge of scales and instrumental technique are required. Repeatable for up to 2 credits. F

MUSC 3315 Marching Band Methods and Techniques: 2 semester hours.

Prepares the student to successfully administer and teach the unique aspects of a marching band program. Topics include marching fundamentals, military and corps-style idioms, drill design, organization, budgets, adjudication, leadership, and conflict resolution. Ability to understand written music/scores recommended. OF

MUSC 3319 Choral Conducting: 2 semester hours.

A practical course in selecting and conducting choral materials, rehearsal techniques, use of small ensembles, planning and organization of choral groups. Students will work with ensemble groups for laboratory experience in conducting. PREREQ: MUSC 1104. F

MUSC 3320 Instrumental Conducting: 2 semester hours.

A practical course in selecting and conducting instrumental materials, rehearsal techniques, use of small ensembles, planning and organization of instrumental groups. Students will work with ensemble groups for laboratory experience in conducting. PREREQ: MUSC 1104. S

MUSC 3324 Jazz Improvisation II: 1 semester hour.

Further development of skills and activities learned during Jazz Improvisation I. Students will learn how to navigate more sophisticated harmonies, utilize more obscure scales, and improvise over more complex forms. There will also be an expanded discussion of different improvisational approaches from various world music traditions. Repeatable for up to 2 credits. PREREQ: MUSC 3314. S

MUSC 3325 Advanced Voice Diction: 2 semester hours.

Principles of voice diction with emphasis on French, German and Latin. PREREQ: MUSC 2225. D

MUSC 3333 Elementary Music Methods: 3 semester hours.

Music curriculum, materials, and teaching techniques for the development of sequential experiences which contribute to children's musical growth in the elementary schools, including Kodaly, Orff, choral music, recorder, and guitar. Includes practicum. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3334 Choral Music Methods: 2 semester hours.

Methods and materials of choral music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3335 Instrumental Music Methods: 2 semester hours.

Methods and materials of instrumental music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2252, MUSC 2255, MUSC 2256, MUSC 2258, and MUSC 2259. D

MUSC 3338 Field Experience in Music Education: 2 semester hours.

Student completes 30 hours of practicum within secondary school music settings, and develops teacher work samples. D

MUSC 3395 Junior Recital: 1 semester hour.

A solo and/or collaborative public recital. PREREQ: Junior level standing in Applied Music. Graded S/U. D

MUSC 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MUSC 4401 Orchestration: 2 semester hours.

Study of the characteristics of individual instruments and their combinations from section to full orchestral scoring. Scores, recordings, and performances may be used as available and appropriate. PREREQ: MUSC 2204. AS

MUSC 4406 Opera Literature: 3 semester hours.

Masterworks of operatic literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4407 Symphonic Music Literature: 3 semester hours.

Masterworks of symphonic literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4408 Chamber Music Literature: 3 semester hours.

Masterworks of chamber music literature. PREREQ: MUSC 3304, MUSC 3305, and MUSC 3306. D

MUSC 4411 Instrument Literature: 2 semester hours.

A study of instructional materials and literature for an orchestral instrument or guitar. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4412 Instrument Pedagogy: 2 semester hours.

A survey and comparative study of pedagogical materials, principles and procedures. Application of pedagogical techniques in teaching situations. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4413 Piano Literature: 2 semester hours.

A study of instructional materials and literature for piano. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4414 Piano Pedagogy: 2 semester hours.

A survey and comparative study of pedagogical materials, principles and procedures for piano. Application of pedagogical techniques in teaching situations. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4415 Seminar in Band Music: 2 semester hours.

Analysis and study of instrumental works from the Baroque to the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4416 Seminar in Choral Music: 2 semester hours.

Analysis and study of choral works from the Renaissance through the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4418 Seminar in Orchestral Music: 2 semester hours.

Analysis and study of orchestral works from the Baroque to the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4419 Voice Literature: 3 semester hours.

Instructional materials and literature for voice. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4420 Voice Pedagogy: 3 semester hours.

A survey and comparative study of pedagogical materials, principles and procedures for voice, with application. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4424 Music in the Baroque Era: 3 semester hours.

Intensive study of music from Monteverdi through J.S. Bach. PREREQ: MUSC 3304. D

MUSC 4425 Music in the Classical Era: 3 semester hours.

Intensive study of music in the Classical era, principally 1730 through Beethoven. PREREQ: MUSC 3305. D

MUSC 4426 Music in the Romantic Era: 3 semester hours.

Intensive study of music in the Romantic era, principally 1800 to 1900. PREREQ: MUSC 3305. D

MUSC 4427 Music in the Modern Era: 3 semester hours.

Intensive study of music in the Modern era, principally since 1900. PREREQ: MUSC 3306. D

MUSC 4429 Advanced Music History Survey: 3 semester hours.

Study of music history topics, including vocal and instrumental forms and styles. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4432 Instrumental Arranging: 2 semester hours.

Arranging music for different instrumental combinations and various textures. PREREQ: MUSC 2204. D

MUSC 4433 Composition: 2 semester hours.

Individual instruction in the organization of musical ideas into logical and homogeneous forms with an emphasis on contemporary styles. May be repeated for up to 12 credits. PREREQ: MUSC 2204 or permission of instructor. F, S

MUSC 4435 Analysis of Musical Styles: 2 semester hours.

The techniques of stylistic analysis of music from the Baroque period through the 20th century. PREREQ: MUSC 3311. D

MUSC 4438 Special Topics in Music Theory: 2 semester hours.

Advanced studies in selected topics in music theory. May be repeated for up to 6 credits with change of topic. PREREQ: MUSC 3311. D

MUSC 4439 Advanced Music Theory Survey: 3 semester hours.

Study of music theory methods, including harmonic and formal analysis. PREREQ: MUSC 3311. D

MUSC 4445 Advanced Instrumental Conducting: 2 semester hours.

Designed for secondary school music educators. Practical experience in analyzing and rehearsing instrumental conducting techniques for a wide variety of instrumental music. PREREQ: MUSC 3320. D

MUSC 4446 Advanced Choral Conducting: 2 semester hours.

Designed for secondary school music educators. Practical experience in analyzing and rehearsing choral conducting techniques for a wide variety of choral music. PREREQ: MUSC 3319. D

MUSC 4491 Independent Study: 1-4 semester hours.

Supervised study in selected areas, primarily research, writing, or analysis. May be repeated for up to 7 credits. PREREQ: Permission of instructor and the department Chair. D

MUSC 4495 Senior Recital: 2 semester hours.

Graded S/U. D

MUSC 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

MUSC 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Music:Applied Lessons (MUSA)

Courses

MUSA 1120 Music Lessons Secondary Piano: 1 semester hour.

Applied music for non-majors, for prospective majors not yet meeting required proficiency level, or for majors studying additional applied music. May be repeated.

MUSA 1121 Applied Music Lessons Piano: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1130 Music Lessons Secondary Voice: 1 semester hour.

Applied music for non-majors, for prospective majors not yet meeting required proficiency level, or for majors studying additional applied music. May be repeated.

MUSA 1131 Applied Music Lessons Voice: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1140 Music Lessons Secondary Organ: 1 semester hour.

MUSA 1141 Applied Music Lessons Organ: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1160 Music Lessons Secondary Strings: 1 semester hour.

Applied music for non-majors, for prospective majors not yet meeting required proficiency level, or for majors studying additional applied music. May be repeated.

MUSA 1161 Applied Music Lessons Strings: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1164 Music Lessons Secondary Brass: 1 semester hour.

Applied music for non-majors, for prospective majors not yet meeting required proficiency level, or for majors studying additional applied music. May be repeated.

MUSA 1165 Applied Music Lessons Brass: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1174 Music Lessons Secondary Woodwinds: 1 semester hour.

Applied music for non-majors, for prospective majors not yet meeting required proficiency level, or for majors studying additional applied music. May be repeated.

MUSA 1175 Applied Music Lessons Woodwinds: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1184 Music Lessons Secondary Percussion: 1 semester hour.

Applied music for non-majors, for prospective majors not yet meeting required proficiency level, or for majors studying additional applied music. May be repeated.

MUSA 1185 Applied Music Lessons Percussion: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 1199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MUSA 2221 Applied Music Lessons Piano: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2231 Applied Music Lessons Voice: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2241 Applied Music Lessons Organ: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2261 Applied Music Lessons Strings: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2265 Applied Music Lessons Brass: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2275 Applied Music Lessons Woodwinds: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2285 Applied Music Lessons Percussion: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 2291 Applied Study:Jazz: 1 semester hour.

For students with a Music or Music Education major or minor. Non-majors with permission of the instructor. 1 credit only. Does not replace primary instrument degree requirements. Elective only. May be repeated. F, S

MUSA 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MUSA 3321 Applied Music Lessons Piano: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3331 Applied Music Lessons Voice: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3341 Applied Music Lessons Organ: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3361 Applied Music Lessons Strings: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3365 Applied Music Lessons Brass: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3375 Applied Music Lessons Woodwinds: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3385 Applied Music Lessons Percussion: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

MUSA 4421 Applied Music Lessons Piano: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4431 Applied Music Lessons Voice: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4441 Applied Music Lessons Organ: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4461 Applied Music Lessons Strings: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4465 Applied Music Lessons Brass: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4475 Applied Music Lessons Woodwinds: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4485 Applied Music Lessons Percussion: 1-3 semester hours.

For students with a Music or Music Education major or minor. Music Education students take for 1 credit; Music Performance students take for 2-3 credits per semester. May be repeated.

MUSA 4491 Applied Study:Jazz: 1 semester hour.

For students with a Music or Music Education major or minor. Non-majors with permission of the instructor. 1 credit only. Does not replace primary instrument degree requirements. Elective only. May be repeated. F, S

MUSA 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Music: General Education (MUSI)

Courses

MUSI 1100 Introduction to Music: 3 semester hours.

A listening-oriented course with Western art music as its principal focus. Designed for the general student. No music reading ability/performance skills are assumed. Credit cannot be granted in both MUSI 1100 and MUSI 1108. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

MUSI 1105 Survey of Rock Music: 3 semester hours.

This course presents a study of rock and related popular music, including its structural elements (rhythm, pitch, chords, lyrics, etc.), historical roots, cultural significance, primary styles, production, dissemination, etc., and aims to focus on contextual musical identities and the shaping of individual and group musical experiences. Partially satisfies Objective 4 of the General Education Requirements. R1

MUSI 1106 American Music: 3 semester hours.

A listening-oriented course for general students focusing on American folk, popular and art music styles. No music reading/performance skills assumed. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

MUSI 1108 The World of Music: 4 semester hours.

A survey of world music, including styles of a variety of cultures, with a focus on Western art music. Music reading ability required. Credit cannot be granted in both MUSI 1100 and MUSI 1108. Partially satisfies Objective 4 of the General Education requirements. F

MUSI 1109 Survey of Jazz: 3 semester hours.

Historical survey of jazz music, jazz-related musical idioms, and leading jazz performers. Through listening, reading and writing about the music, students will have the opportunity to develop a greater understanding and appreciation for jazz, for the musicians who created it, and for the music's cultural value. Partially satisfies Objective 4 of the General Education Requirements. D

Music:Performance (MUSP)

Courses

MUSP 1163 Chamber Orchestra: 1 semester hour.

Study and performance of traditional and modern works for chamber orchestra. F, S

MUSP 1166 Chamber Choir: 1 semester hour.

Reading, study and performance of representative literature for chamber choir. Emphasis is placed on the individual's contribution toward the highest of choral standards. Open to all students by audition. May be repeated. F, S

MUSP 1167 Opera Workshop: 1 semester hour.

Ensemble course devoted to the study of opera from the standpoint of workshop. May be repeated. S

MUSP 1168 Instrumental Ensemble: 1 semester hour.

Ensemble training in various instrument combinations, such as string quartet and various woodwind and brass ensembles. Section 1, Woodwind Ensemble; 2, Brass Ensemble; 3, Percussion Ensemble; 4, String Ensemble; 5, Keyboard Ensemble. May be repeated. F, S

MUSP 1169 Orchestra: 1 semester hour.

Sight reading of representative orchestral literature; orchestral routine, study, and public performance of major symphonic compositions including orchestral accompaniments. May be repeated. F, S

MUSP 1170 Camerata Singers Idaho State Chorale: 1 semester hour.

Reading, study, and performance of representative choral literature. Open to community members and students. Does not meet the ensemble requirement for music majors. May be repeated. F, S

MUSP 1172 ISU Women's Choir: 1 semester hour.

Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. F, S

MUSP 1173 Concert Choir: 1 semester hour.

Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on attaining high musical standards and levels of choral-vocal proficiency. Open to all students by audition. May be repeated. F, S

MUSP 1176 Chamber Jazz Ensemble: 1 semester hour.

Rehearsal and performance of jazz band literature in a small ensemble context; focuses on non-standard instrumentations and forms found outside the traditional "big band" style. All instruments are encouraged. One or two concerts are typically given each semester. Open to all students by audition. May be repeated. F, S

MUSP 1177 Symphonic Band: 1 semester hour.

Rehearsal and performance of traditional and contemporary wind literature in on- and off-campus concerts. Open to all students by audition. May be repeated. F, S

MUSP 1178 Jazz Band: 1 semester hour.

Rehearsal and performance of standard and contemporary big-band literature. One or two concerts are given each semester. Open to all students by audition. May be repeated. F, S

MUSP 1179 Bengal Marching Band: 1 semester hour.

Rehearsal and performance at home football games and other events. May include travel to selected away football games. Open to all students by audition. May be repeated. F

MUSP 4463 Chamber Orchestra: 1 semester hour.

Study and performance of traditional and modern works for chamber orchestra. PREREQ: Junior level standing in applied music. F, S

MUSP 4466 Chamber Choir: 1 semester hour.

Reading, study and performance of representative literature for chamber choir. Emphasis is placed on the individual's contribution toward the highest of choral standards. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4467 Opera Workshop: 1 semester hour.

Ensemble course devoted to the study and presentation of an opera. PREREQ: Junior level standing in applied music. S

MUSP 4468 Instrumental Ensemble: 1 semester hour.

Ensemble training in various instrument combinations, such as string quartet and various woodwind and brass ensembles. Section 1, Woodwind Ensemble; 2, Brass Ensemble; 3, Percussion Ensemble; 4, String Ensemble; 5, Keyboard Ensemble. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4469 Orchestra: 1 semester hour.

Sight reading of representative orchestral literature; orchestral routine, study, and public performance of major symphonic compositions including orchestral accompaniments. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4472 ISU Women's Choir: 1 semester hour.

Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4473 Concert Choir: 1 semester hour.

Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on attaining high musical standards and levels of choral vocal proficiency. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4476 Chamber Jazz Ensemble: 1 semester hour.

Rehearsal and performance of jazz band literature in a small ensemble context; focuses on non-standard instrumentations and forms found outside the traditional "big band" style. All instruments are encouraged. One or two concerts are typically given each semester. Open to all students by audition. May be repeated. F, S

MUSP 4477 Symphonic Band: 1 semester hour.

Rehearsal and performance of traditional and contemporary wind literature in on- and off-campus concerts. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4478 Jazz Band: 1 semester hour.

Rehearsal and performance of standard and contemporary big-band literature. One or two concerts are given each semester. May be repeated. PREREQ: Junior level standing in applied music. F, S

National Student Exchange (NSE)

Courses

NSE 3300 National Student Exchange: 1-18 semester hours.

The National Student Exchange (NSE) is an opportunity to attend one of over 190 colleges and universities across the U.S. and Canada (including Guam, Puerto Rico, and Virgin Islands) for up to one calendar year while paying in-state tuition and fees. To be eligible to apply, students must be enrolled at Idaho State University full-time with at least a minimum 2.5 GPA in the semester prior to exchange and have at least sophomore status while on exchange. There is a nonrefundable application fee, and students pay either Idaho State University's or the host school's in-state tuition and fees, plus room, board, and transportation to and from the host campus, applying for financial aid accordingly.

Nuclear Engr (NE)

Courses

NE 1120 Introduction to Nuclear Engineering: 1 semester hour.

Introduction to the engineering profession and to nuclear engineering in particular. F, S

NE 3301 Nuclear Engineering I: 3 semester hours.

Nuclear stability and radioactive decay; types and energies of nuclear reactions; interactions of radiation with matter, including cross sections, attenuation, and scattering. PREREQ: MATH 1170. PREREQ or COREQ: PHYS 2212. S

NE 3302 Nuclear Engineering II: 3 semester hours.

Basics of controlled chain reactions and the design of nuclear power reactors. Fission reactor theory, including neutron moderation, criticality, neutron life cycle and neutron diffusion. Types of reactors, present and future. PREREQ: NE 3301. COREQ: MATH 3360. F

NE 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

NE 4419 Energy Systems and Nuclear Power: 3 semester hours.

Fundamentals of conventional and renewable energy systems. Energy sources, distribution, use and environmental effects. Nuclear power plant "balance of plant" design. PREREQ: ME 3307. PREREQ or COREQ: MATH 3360. F

NE 4445 Reactor Physics: 3 semester hours.

Physical principles underlying neutron interactions. Multi-region and multi-energy diffusion and transport. Beamport and filter concepts and design. PREREQ: NE 3302. PREREQ or COREQ: MATH 4421. S

NE 4446 Nuclear Fuel Cycle Systems: 3 semester hours.

Alternative fuel cycles. Analysis and design of key fuel cycle components (e.g., uranium enrichment, fuel fabrication, reactor fuel management, reprocessing, and waste management). Principles of nuclear criticality safety. Criticality and thermal analysis codes. Design principles of nuclear fuel cycle facilities and equipment. PREREQ: NE 3301 and NE 3302 or equivalent. S

NE 4447 Nuclear Systems Laboratory: 1 semester hour.

Techniques of radiation detection and measurements, flux measurements, neutron activation analysis, approach to criticality, Inhour equation, subcritical experiments. PREREQ: NE 4445 and HPHY 4416. S

NE 4450 DS Reactor Operations: 3 semester hours.

Training course; basic reactor theory and operation; regulations and qualification. PREREQ: Permission of instructor. F, S, Su

NE 4451 Nuclear Seminar: 1 semester hour.

Current topics in nuclear science and engineering. PREREQ: Senior standing or permission of instructor. Graded S/U. F, S

NE 4458 Monte Carlo Methods and Applications: 3 semester hours.

Basics of the application of stochastic methods to calculate the transport of neutrons, photons, and other sub-atomic particles. Includes introduction to the MCNP code, and sample application problems in both nuclear reactor design and in applications such as radiation beams used for cancer therapy. F

NE 4478 Reliability and Risk Assessment: 3 semester hours.

Methods of evaluating process and equipment reliability. Probabilistic methods applied to analysis and design. Setting probabilistic design objectives and calculating probabilistic performance. PREREQ: MATH 3360 and EE 4416 or permission of instructor. S

NE 4481 Independent Problems: 1-3 semester hours.

Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. PREREQ: Permission of instructor. D

NE 4487 Medical Applications in Engineering and Physics: 3 semester hours.

Applications of engineering and physics principles, particularly nuclear science, to medicine. Covers radioisotopes, X-ray imaging, magnetic resonance and ultrasound imaging, radiation protection, codes and standards. PREREQ: MATH 3360 and PHYS 2212. S

NE 4488 Nonproliferation and Nuclear Weapons and Safeguards: 3 semester hours.

History, regulation and politics of nuclear nonproliferation; technologies and practices for safeguarding special nuclear materials; detection of nuclear proliferation and prevention of nuclear terrorism. PRE-or-COREQ: BS in Science or Engineering or permission of instructor. F

NE 4496A Project Design I: 1 semester hour.

Semester one of two semester senior design course sequence. Planning project for second semester. Special topics on professionalism, ethics, and licensing. PREREQ: Approval of application for admission to course. F

NE 4496B Project Design II: 3 semester hours.

Continuation of design sequence dealing with the design, analysis, implementation, and consequences of senior design project. PREREQ: NE 4496A. S

NE 4499 Experimental Course: 1-6 semester hours.

Nursing (NURS)

Courses

NURS 3100 Professional Nursing: 2 semester hours.

Social, political, legal and economic forces affecting health care are analyzed in the context of their impact on the professional nurse's scope and standards of practice. Interprofessional verbal communication, evidence-based practice, time management/prioritization, delegation, the nursing process, and teaching and learning are presented. F, S, Su

NURS 3105 Professional Nursing: 3 semester hours.

Social, political, legal, technological and economic forces affecting health care are analyzed in the context of their impact on the professional nurse's scope and standards of practice, and opportunities provided to review culturally relevant, inter-professional, and verbal and digital communications specific to their impact on time-management/prioritization, delegation, confidentiality, and teaching and learning in Nursing. Su

NURS 3110 Fundamentals of Nursing: 3 semester hours.

Provides the theoretical basis for nursing skills, medical terminology, medication calculation, nursing process, health promotion, and written interprofessional communication as they relate to holistic nursing care of diverse and rural populations. COREQ: NURS 3110L. F, S, Su

NURS 3110L Fundamentals of Nursing Lab: 1 semester hour.

Application and practice of nursing skills, medical terminology, medication calculation, nursing process, and health promotion as they relate to holistic nursing care of diverse and rural populations. Written interprofessional communication will focus on patient-centered care planning and documentation using electronic medical records. COREQ: NURS 3110. F, S, Su

NURS 3120 Health Assessment: 2 semester hours.

Assessment and interconnectedness of physiologic, mental, emotional, spiritual, environmental, cultural, relational, contextual and psychological health status and health promotion needs of clients throughout the lifespan. Promotes patient-centered and culturally appropriate care using evidence-based methods for collecting and interpreting health history and assessment data. COREQ: NURS 3120L. F, S, Su

NURS 3120L Health Assessment Lab: 1 semester hour.

Application and practice of comprehensive and focused assessment of physiologic, mental, emotional, spiritual, environmental, relational, contextual, health status and health promotion needs of clients using culturally and developmentally appropriate approaches to establish a foundation for clinical judgment. Communication of assessment will focus on professional written communication strategies for client and interprofessional interactions. COREQ: NURS 3120. F, S, Su

NURS 3130 Adult Health Nursing I: 3 semester hours.

Nursing care of adult clients as they age with an emphasis on wellness, restoration of health and end-of-life care. There is integration of evidence, critical thinking and communication knowledge and skills necessary to provide holistic, patient-centered care for diverse clients in sub-acute settings. COREQ: NURS 3130C. F, S, Su

NURS 3130C Adult Health Nursing I Clinical: 4 semester hours.

Application of the nursing process to provide evidence-based care for adult clients as they age with emphasis on wellness, restoration of health and end-of-life care. Care is delivered in a variety of care settings and includes applied drug therapy. COREQ: NURS 3130. F, S, Su

NURS 3150C Health Assessment/Fundamentals Clinical: 2 semester hours.

Application of fundamental nursing skills, terminology, nursing process, health promotion, and comprehensive and focused physical, spiritual, and psychosocial assessment skills for efficient, safe, and compassionate delivery of patient care for diverse and rural populations in acute or sub-acute settings. Application of professional communication strategies to client and interprofessional interactions, including documentation. COREQ: NURS 3110 and NURS 3120. F, S, Su

NURS 3330 Evidence-Based Nursing Practice: 3 semester hours.

An introduction to nursing research and evidence based practice with emphasis on the critical evaluation of existing nursing literature for application to nursing practice and on the relationship among research, evidence based practice, and professional nursing practice. F, S, Su

NURS 3372 Nursing Care of the Older Adult: 2 semester hours.

Use of geriatric nursing principles to help older adults. PREREQ: Permission of instructor. D

NURS 4130 Adult Health Nursing II: 4 semester hours.

Nursing care of adult clients as they age with an emphasis on acute and chronic health problems including end-of-life care. There is an emphasis on the patient safety, integration of evidence, critical thinking and communication knowledge and skills necessary to provide and manage holistic, patient-centered care for diverse clients in the acute care setting. COREQ: NURS 4420. F, S, Su

NURS 4140 Child Health Nursing: 3 semester hours.

Theoretical and evidence-based foundations for nursing care of children recognizing the unique developmental differences in physiological, psychological and social development between infants, children, and adolescents. Establishes holistic, ethical and patient-centered nursing care for children across the health-illness continuum in the context of their families, environment and culture in a variety of settings. Evaluate how genetics, behavioral health, health promotion, injury prevention, and advocacy influence health throughout childhood and into adult life. F, S, Su

NURS 4150 Women and Childbearing Family Nursing: 2 semester hours.

Theoretical and evidence-based perspectives of nursing care which promote the health of rural and/or diverse families, women in the reproductive years and neonates in a variety of settings. COREQ: NURS 4150C. F, S, Su

NURS 4150C Women and Childbearing Family Nursing Clinical: 2 semester hours.

Practical application of evidence-based, holistic nursing care of rural and/or diverse families, women in the reproductive years and neonates in a variety of settings. COREQ: NURS 4150. F, S, Su

NURS 4160 Mental Health Nursing: 3 semester hours.

Theoretical and evidence-based perspectives of nursing care of patients with behavioral and mental health issues across cultures and the life span. Emphasis on societal impact, communication, safety, quality of life, and ethical considerations. COREQ: NURS 4160C. F, S, Su

NURS 4160C Mental Health Nursing Clinical: 2 semester hours.

Clinical application of theoretical and evidence-based behavioral mental health nursing care in diverse populations and settings across the lifespan. COREQ: NURS 4160. F, S, Su

NURS 4180 Foundations of Health Informatics for Nurses: 2 semester hours.

This course focuses on the use of health informatics principles with both consumers and health care professionals to transform data and information into knowledge and wisdom to assure the safe and effective use of health information and communication technologies that promote evidence-based, patient-centered health care. The course will highlight the nurse's role using emerging informatics tools for practice, administration, research, education, quality improvement, and for rural and population health. F, S, Su

NURS 4200 Population Health Nursing: 3 semester hours.

This course provides theoretical and evidence-based strategies to improve the health and quality of life for populations in geopolitical and phenomenological communities. An understanding of epidemiology, community assessment, health education, environmental health, and health policy and legislation as it relates to the professional nurse's role is established. COREQ: NURS 4200C. F, S, Su

NURS 4200C Population Health Nursing Clinical: 2 semester hours.

Application of the theoretical and evidence-based strategies to improve the health and quality of life for populations in geopolitical and phenomenological communities. COREQ: NURS 4200. F, S, Su

NURS 4220 Leadership and Management in Nursing: 3 semester hours.

Evidence-based knowledge of leadership and management theories and concepts to prepare professional nurses to function across a variety of health care settings. Includes emphasis on nursing leadership accountability and influence in organizational structure, quality improvement, patient outcomes, role transition, and personal career development principles. F, S, Su

NURS 4400 Experiential Learning Equivalency for BS Completion Students: 1-16 semester hours.

Completion of a portfolio to assess and verify experiential learning from opportunities offered through professional practice following licensure as a registered professional nurse (RN). No credit will be awarded for previous classwork leading to approval to take the registered nurse licensing exam or completed coursework also used to obtain a Bachelor's Degree in Nursing. F, S, SU

NURS 4410 Role of the BS Prepared Nurse in Current Society: 2 semester hours.

Synthesize knowledge to provide competent evidenced based care and facilitate the health of individuals, families, and society. Prepare to engage in baccalaureate nursing practice while respecting the uniqueness and complexity of care. F, S, SU

NURS 4416 Nursing Health Care Infomatics: 1 semester hour.

Introduction to the management of health care information through technology with an emphasis on nursing applications. Current issues and trends will be examined along with skills for accessing, managing, and critically examining information. PREREQ: Permission of instructor. D

NURS 4417 Interdisciplinary Evaluation: 1 semester hour.

Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Equivalent to CSD 4417, DHS 4417, PSYC 4417, and SOWK 4417. PREREQ: Permission of instructor. D

NURS 4420 Professional Nursing Capstone: 4 semester hours.

This course focuses on the integration of the professional nursing role, with emphasis on the application of holistic nursing principles, evidence and theory in the care of multiple patients with complex problems. Along with the faculty and preceptor, students will have opportunities to synthesize and integrate previous learning and apply it to a professional nursing practice in a safe and effective manner. This course includes a capstone clinical practice experience. COREQ: NURS 4130. F, S, Su

NURS 4428 Holistic Health Care: 2 semester hours.

Introduction of world health beliefs, evolving practices complementary to western medicine and health care. Permission of instructor. D

NURS 4440 Professional Nursing Synthesis: 1 semester hour.

This course is designed to provide students with an opportunity to integrate, improve, and evaluate their level of preparation for beginning practice as a graduate professional nurse and a future nurse leader. Through focused review of critical content, students will integrate the nursing competencies that are essential for high quality, evidence-based, safe practice of nursing. F, S, Su

NURS 4445 Professional Nursing Synthesis: 2 semester hours.

This course is designed to provide students with an opportunity to integrate, improve, and evaluate their level of preparation for beginning practice as a graduate professional nurse and a future nurse leader. Through focused review of critical content, including use of information and technology in practice, students will integrate the nursing competencies that are essential for high quality, evidence-based, safe practices of nursing. SU

NURS 4480 Genetics for Health Care: 2 semester hours.

An in-depth, interdisciplinary review of the impact of genetics on patients and patient care and the biological, social, ethical and legal issues surrounding genetics and genomics. Equivalent to CSD 4480 and DHS 4480. Su

NURS 4491 Independent Study in Nursing: 1-3 semester hours.

Independent study in a specific area of nursing of special interest. PREREQ: Permission of the instructor. D

Occupational Therapy Assistant (OTA)

Courses

OTA 0102 Foundations of Occupational Therapy: 2 semester hours.

This course introduces the student to the profession of occupational therapy and the health care system. The holistic approach of occupation as a concept and an orientation to ethics is provided. Information is presented that relates to the role of the occupational therapy assistant and includes the purpose, philosophy, and history of the profession. PREREQ: Acceptance into the program. F

OTA 0107 Therapeutic Activities: 3 semester hours.

This course will provide a conceptual overview of activity analysis and practice skill in the therapeutic use of technology, manual arts, media, and activity (occupation). Planning, preparation, learning methods, and safety factors are emphasized. Therapeutic occupations will be approached using occupational therapy terminology from the Practice Framework Domain and Process. COREQ: Acceptance into program. F

OTA 0110 Theory and Treatment of Psychosocial Dysfunction: 4 semester hours.

This course will present descriptions of psychosocial dysfunction commonly treated in occupational therapy. Theories of occupational therapy treatment will be explored and students will practice a variety of techniques used in identifying and treating psychosocial disorders to promote rehabilitative change. Reading assignments, discussions, presentations, practice application of standardized assessments in lab, and structured learning activities will be utilized to prepare students to interact effectively and safely in psychosocial treatment situations. PREREQ: Acceptance into the OTA program. OTA 0102, OTA 0107, PSYC 3301. S

OTA 0115 Level I Fieldwork Placement I: 1 semester hour.

This course will provide directed observation and participation in selected aspects of the occupational therapy process to introduce students to the OTA field. PREREQ: Acceptance into OTA program. F

OTA 0117 Neurological Theory and Treatment: 4 semester hours.

Students will review basic neuroanatomy, neurophysiology and learn pathologies commonly seen in occupational therapy. Students will be introduced to concepts of rehabilitation and accepted treatment techniques through application of treatment principles in lab. Study of normal movement, abnormal movement, and the developmental sequence is included at the entry level of practice. PREREQ: HO 0111 or BIOL 3301 and BIOL 3302, OTA 0102, OTA 0107, OTA 0124. S

OTA 0121 Level I Fieldwork Placement 2: 1 semester hour.

This course is a continuation of Level 1 fieldwork and will provide directed observation and participation in selected aspects of the occupational therapy process. PREREQ: OTA 0115. S

OTA 0124 Human Movement for Occupation: 3 semester hours.

This course presents a study of the kinetics of human motion. Emphasis will be placed on normal motion and movement patterns in the context of activity and Occupational Therapy. Procedures for range of motion, manual muscle testing and movement analysis will be reinforced. The course will also introduce biomechanical principles, postural considerations and functional characteristics of the musculoskeletal system. PREREQ: Acceptance into the program. F

OTA 0210 Theory and Treatment of Physical Dysfunction: 4 semester hours.

The student will learn about physical pathologies, conditions, and disabilities commonly seen in occupational therapy as well as current evidence-based treatment techniques and methods. Treatment applications and rationale will be explored in lecture and laboratory with simulated treatment practice. PREREQ: Second-year student in good standing. BIOL 1101, HO 0111 or BIOL 3301 and BIOL 3302, OTA 0117. F

OTA 0211 Professional Transitions: 2 semester hours.

This course provides closure to the educational program following Fieldwork II placements. Emphasis is on portfolio development of treatment ideas and presentation, program evaluation, Fieldwork II experience analysis and synthesis, and final preparation for the certification examination. Upon completion, students should be able to enter the occupational therapy work force with supportive documentation demonstrating progress toward meeting critical competencies set forth by the curriculum. PREREQ: Second-year student in good standing. OTA 0115 OTA 0121. F

OTA 0212 Occupational Therapy Practice Management: 2 semester hours.

Students will develop knowledge of responsibilities required to provide occupational therapy in a community or health care setting. Responsibilities include operations, supervisory requirements, quality assurance, and compliance with regulations. Planning and management of activity service programs are also included. Occupational therapy discussions will include current topics and issues in practice, promotion of the profession, and the changing role from student to practitioner. PREREQ: OTA 0102. S

OTA 0216 Pediatric Theory and Treatment: 4 semester hours.

Students will be introduced to commonly treated disorders in children and developmentally disabled individuals. Occupational therapy treatment techniques, rationale and application are presented. Laboratory experience will include entry level treatment skills and simulated treatment practice using purposeful activities (occupation). PREREQ: Second-year student in good standing. OTA 0110 and OTA 0117. F

OTA 0221 Level II Fieldwork Placement 1: 7 semester hours.

Students will participate in 8 week, full-time (or 320 hours) supervised clinical fieldwork experience in preparation for entry-level practice. Practice settings may include traditional and/or emerging practice areas. Students will integrate academic knowledge, including human growth/development, disease/disability, psychosocial factors, and client-centered, occupation-based treatment interventions in the provision of occupational therapy services across the lifespan. Outside assignments are required. PREREQ: Second-year student in good standing. All academic coursework (Year 1: Fall and Spring course sequence) must be completed with a C or better prior to beginning Level II Fieldwork. S

OTA 0222 Level II Fieldwork Placement 2: 7 semester hours.

Students will participate in 8 week, full-time (or 320 hours) supervised clinical fieldwork experience in preparation for entry-level practice. Practice settings may include traditional and/or emerging practice areas. Students will integrate academic knowledge, including human growth/development, disease/disability, psychosocial factors, and client-centered, occupation-based treatment interventions in the provision of occupational therapy services across the lifespan. Outside assignments are required. PREREQ: Second-year student in good standing. All academic coursework (Year 1: Fall, Spring Summer. Year 2: Fall, Spring course sequence) must be completed with a C or better prior to beginning Level II Fieldwork. PRE-or-COREQ: OTA 0221. S

OTA 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. PREREQ: Permission of the instructor. D

OTA 0298 Special Topics: 1-8 semester hours.

This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program's full-time pre-employment curriculum. PREREQ: Permission of instructor.

Optional Practice Training (OPT)

Courses

OPT 4401 Optional Practice Training: 0 semester hours.

Organizational Learning and Performance (OLP)

Courses**OLP 2210 Competency-Based Equivalency I: 12 semester hours.**

Credit, unique to Workplace Training and Leadership majors, for verified workplace competencies evaluated by review committee. A minimum of 5,000 hours of documented work experience in an occupational specialty is mandatory to apply. A maximum of 24 months of professional-technical, proprietary, or military education successfully completed in an approved program may be applied. Credits are awarded as experiential learning credit. Graded S/U. PREREQ: Junior standing and six required credits in the major. F, S, Su

OLP 2220 Technical Education Equivalency: 1-18 semester hours.

Credit, unique to the Workplace Training and Leadership - Professional-Technical Education majors, for technical competence acquired through verified post-secondary professional technical, proprietary, or military education evaluated by review committee. Graded S/U. F, S, Su

OLP 2231 Introduction to Leadership: 3 semester hours.

This course provides students with the opportunity to explore leadership through inquiry and a variety of learning experiences. Students will combine readings, experiential learning activities, and critical reflection to identify foundational leadership concepts, apply leadership to real-world situations, and develop a philosophy of leadership. D

OLP 2296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of the instructor. D

OLP 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

OLP 3310 Competency-Based Equivalency II: 12 semester hours.

Credit, unique to Workplace Training and Leadership majors, for verified supervisory or advanced specialization workplace competencies evaluated by review committee. A minimum of 5,000 hours of documented work experience in an occupational specialty is mandatory to apply. A maximum of 24 months of professional-technical, proprietary, or military education successfully completed in an approved program may be applied. Credits are awarded as experiential learning credit. Graded S/U. PREREQ: Junior standing and six required credits in the major. F, S, Su

OLP 3320 Selected Topics: 1-8 semester hours.

Examination and analysis of special topics for professional-technical education teachers/trainers. May be repeated. PREREQ: Permission of instructor. D

OLP 3331 Theories and Models of Leadership: 3 semester hours.

The course examines classic and contemporary theories and models of leadership. Students will analyze the concepts, strengths, and weaknesses of these leadership theories. Through a variety of experiences, students will use inquiry and critical reflection to connect the application of these theories and models to effective leadership and team practice. D

OLP 4401 Foundations of Human Resource Development: 3 semester hours.

Acquaints the student with the various aspects of human resource development: history, philosophy, and theory of HRD. F, S, Su

OLP 4402 Analysis and Course Construction: 3 semester hours.

Analysis of components of occupations to determine instructional content. Development of instructional materials based on performance objectives and competency identification. F, S, Su

OLP 4403 Methods of Training: 3 semester hours.

Training methods and techniques designed to address workplace issues. F, S

OLP 4404 Evaluating Training: 3 semester hours.

Designing and conducting evaluations for business and industry training, including data analysis and preparation of evaluation reports. F, S

OLP 4405 Learning Fundamentals: 3 semester hours.

Examination of the research related to learning fundamentals and implications for curriculum and instruction. D

OLP 4406 Grantwriting: 3 semester hours.

Reasons for requesting a grant, goal setting, sample projects, identifying funding agencies, submitting a Request for Proposal (RFP), elements of a good proposal, library resources, websites, and other references for grantwriting. D

OLP 4407 Instructional Technology in Human Resource Development: 3 semester hours.

Applying evidence-based instructional principles to design, development, and evaluation of synchronous and asynchronous e-learning. Includes development of online multi-media materials for professional, industry, and educational application. F, S

OLP 4409 Professional Readings and Writing in Human Resource Development: 3 semester hours.

Exposure to the professional literature of human resource development, including practice in writing abstracts of journal articles using APA style. F

OLP 4410 Principles of Change: 3 semester hours.

Critical analysis and discussion of change management theory, principles of leadership and change, and an in-depth review of principles related to personal change. Includes a review of current issues in managing transitions, leading change. D

OLP 4411 Consulting Skills in Human Resource Development: 3 semester hours.

Create strategies for working with various stakeholders and factors in the consulting process. Appropriate for HRD professionals and others who find themselves in a position to influence without authority while collaborating with others to get work done. D

OLP 4431 Workplace Leadership: 3 semester hours.

Supervising in a professional-technical education or corporate training setting. Study human relations factors: planning, organizing, evaluation, staff development, labor relations, and personnel policies/practices. D

OLP 4444 Ethics and Diversity in the Workplace: 3 semester hours.

A contemporary exploration of issues related to both ethics and diversity in the workplace. F

OLP 4450 Principles of Adult Education: 3 semester hours.

Provides an understanding of adult education as a field of academic inquiry and professional practice. Examines current and past trends and practices of adult learning. D

OLP 4452 Reframing Organizations: 3 semester hours.

Directed exploration of issues pertaining to the functions of human resource development (HRD) and the influence of perspective on organizational development. Emphasis is on understanding organizations through the perspectives or frames of structural, human resource, political, and symbolic approaches; and how reframing perspective deepens understanding and broadens opportunity for progress. D

OLP 4453 Employee Engagement and Motivation: 3 semester hours.

An introduction to the concepts of employee engagement and motivation in the workplace. D

OLP 4457 Facilitating Adult Learning: 3 semester hours.

Study of the needs and interests of adult learners in business and industry using Andragogy. Planning of conferences and workshops for adult learners. D

OLP 4461 Directed Studies: 1-4 semester hours.

Individual work under staff guidance. Field research on specific occupational advances in technology. May be repeated for a maximum of 6 credits. PREREQ: Permission of instructor. D

OLP 4464 Facilities Management: 3 semester hours.

Organization, safety, and management of facilities. An in-depth study of facility requirements and facility planning. F, S

OLP 4465 Practicum in Workplace Training and Leadership: 3 semester hours.

Development of workplace competencies applicable to business and industry settings. Supervised professional experience required. PREREQ: Permission of instructor. Graded S/U. F, S

OLP 4467 Practicum: Student Teaching: 3-8 semester hours.

Development of teaching competencies applicable to career and technical education settings at the secondary and post-secondary levels. PREREQ: Permission of instructor. Graded S/U. F, S

OLP 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option. Graded S/U. D

OLP 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Paralegal Studies (PARA)

Courses

PARA 0110 Introduction to Paralegal Studies: 3 semester hours.

The legal system and the paralegal's role in it; fundamental paralegal skills and tasks; law office administration; computer technology; regulation of paralegals and paralegal ethics; and employment opportunities. A survey of the major substantive areas of the law is presented, with a summary discussion of the paralegal's role in each area. F

PARA 0111 Ethics and Professionalism: 3 semester hours.

Ethical standards and regulations governing paralegals and attorneys. Unauthorized practice of law, confidentiality of information, conflict of interest are covered in depth, along with common billing practices and fee arrangements, client trust accounts, filing and calendaring systems, and the documentation of client files. F

PARA 0112 Estates Wills and Trusts: 3 semester hours.

Learn what estates, wills, trusts and guardianships are and how to write the documents pertaining to them. Emphasis on Uniform Probate Code including formal and informal probate proceedings and the administration and closing of estates. Focus is on the role of the paralegal in gathering information, researching, and drafting estate planning. D

PARA 0113 Contract Law: 3 semester hours.

Basic principles of contract law, including capacity, formation, conditions, enforcement, statute of frauds, performance and breach, remedies, defenses, and third-party rights. Portions of Articles 2 and 9 of the Uniform Commercial Code will also be addressed. Emphasizes the role of the paralegal in gathering information, researching, and drafting contract documents. S

PARA 0114 Family Law: 3 semester hours.

This course instructs students in the law governing marriage, prenuptial agreements, marital property, divorce, child custody and support, paternity, termination of parental rights, adoption, and other matters relating to domestic legal rights. The role of the paralegal in the area of domestic law is emphasized. D

PARA 0115 Property Law: 3 semester hours.

The paralegal's role with regard to documents and concepts of ownership, conveyance, and encumbrance of real and personal property, including leases, licenses, liens, easements, remainders, and life estates. Includes public and private restrictions on land use, and proper drafting of deeds, leases, mortgages, foreclosure and eviction documents. D

PARA 0116 Tort Law: 3 semester hours.

The paralegal's role regarding fundamental concepts of tort law, including intentional torts, negligence, strict liability, and product liability and the elements necessary to prove each tort. Defenses to and damages recoverable for a tort claim. Personal injury litigation and worker's compensation will be discussed in depth. S

PARA 0117 Criminal Law and Procedure: 3 semester hours.

Statutory and common law crimes against person, property, and society; the elements required to prove a crime; and the defenses available to a defendant. Constitutional and statutory standards for law enforcement practices, plea negotiation, trial, sentencing, and appeal. Conducting preliminary factual investigation and other pre-trial work. F

PARA 0118 Business Organizations: 3 semester hours.

This course explores the basic types, formation and operation of business organizations, including corporations, partnerships, limited partnerships, limited liability companies, and sole proprietorships. The role of the paralegal in drafting documents and maintaining records for business organizations will be emphasized. D

PARA 0119 Law Office Technology: 2 semester hours.

Students will learn advanced and specialized computer applications specific to the legal services environment, including advanced Word skills, such as creating headings, sections, tables of authorities, indexes, and hyperlinks in legal documents; Excel spreadsheets for the creation of exhibits, charts, and tables; law practice management software including time keeping; records management; accounting; and billing; and other applications for managing, editing, marking, and storing electronic documents. F

PARA 0121 Law Office Management: 2 semester hours.

Introduction to the structure and dynamic of the law office. Examines the legal team, personnel relations, legal fees, timekeeping, billing and financial management, law office technology, legal application software, records systems, docket control, and file and records management. S

PARA 0122 Legal Research Analysis and Writing I: 3 semester hours.

Basic elements of legal research and sources of the law using print and electronic research methods. Develop rudimentary skills for analyzing legal issues and developing legal arguments. Introduce basics of legal document preparation such as case briefing, letter writing, and research memoranda drafting. PREREQ: BT 0170 or INFO 1101, ENGL 1101 or ENGL 1101P, and PARA 0110. S

PARA 0215 Debtor and Creditor Rights and Bankruptcy Law: 3 semester hours.

The paralegal's role relating to business transactions, debtor and creditor relations, consumer protection, and bankruptcy. Students explore secured and unsecured transactions, rights and remedies available under Article 9 of the Uniform Commercial Code and other statutes, and the types of relief afforded under the Bankruptcy Code. D

PARA 0222 Legal Research Analysis and Writing II: 3 semester hours.

Continued development of issue identification and legal analysis skills. In-depth legal research using primary and secondary sources of law and print and electronic research media. Advanced legal document preparation including court briefs and memoranda, litigation, and transactional documents. PREREQ: BT 0170 or INFO 1101, ENGL 1101 or ENGL 1101P, PARA 0110, and PARA 0122. S

PARA 0223 Legal Research Analysis and Writing III: 3 semester hours.

Development of more advanced legal analysis and issue identification skills. In-depth legal research of primary and secondary authority using law library resources and computerized legal databases. Related legal writing skills are developed further, including preparation of complex legal documents. PREREQ: ENGL 1101 or ENGL 1101P, PARA 0110, PARA 0122, and PARA 0222. D

PARA 0230 Paralegal Internship: 4 semester hours.

Students acquire practical experience in doing the job of a paralegal in the workplace. The course is arranged on an individual basis. S

PARA 0232 Civil Litigation and Procedure: 3 semester hours.

Students perform tasks of a paralegal at every stage of litigation including initial client contact, investigation and identification of claims and issues, legal research, preparation and filing appropriate documents, preparing witnesses, making trial notebooks, giving jury instructions, assisting at trial, making post-judgment motions, and handling appeals and collection. PREREQ: PARA 0116 and PARA 0122. F

PARA 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PARA 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Paramedic Science (PARM)

Courses

PARM 2211 Basic ECG Interpretation: 3 semester hours.

Introductory ECG course. Anatomy and physiology of the conduction system of the heart, the electrical system, electrocardiography, abnormal ECG patterns and distinguishing between life-threatening and non-life-threatening dysrhythmias. Introduction to dysrhythmia management. PREREQ: Acceptance into Paramedic program or permission of instructor. F

PARM 2212 Paramedic Pharmacology: 3 semester hours.

Fundamental, drug-class oriented course that focuses on the pharmacodynamics and pharmacokinetics of drug therapy, drug calculations, and the pharmaceutical interventions of common EMS medications. Roles, responsibilities, and ethical considerations of drug administration. COREQ: PARM 2213, PARM 2213L, and PARM 2217L. F

PARM 2213 Paramedic Fundamentals: 2 semester hours.

Basic patient assessment concepts, review of basic airway management, and introduction to advanced airway management/ventilation, intravenous skills, and medication administration via enteral and parenteral routes. COREQ: PARM 2212, PARM 2213L, and PARM 2217L. F

PARM 2213L Paramedic Fundamentals Lab: 1 semester hour.

Focus on BLS and ALS airway management as well as intravenous cannulation, medication administration, and drug calculations. Graded S/U. COREQ: PARM 2212, PARM 2213, and PARM 2217L. F

PARM 2214 Paramedic Pathophysiology: 3 semester hours.

Correlative approach to pathophysiology, applying both physical assessment skills and basic cellular understanding to the various disease entities and trauma processes encountered in emergency medicine. PREREQ: Acceptance into Paramedic program or permission of instructor. F

PARM 2215 Introduction to Paramedic Medicine: 3 semester hours.

Interactive presentation and discussion of foundational aspects of EMS within the healthcare system. Includes ethics, medical-legal issues, roles and responsibilities of the paramedic, healthcare policy, and the role of research within EMS. PREREQ: Acceptance into Paramedic program. F

PARM 2217L Paramedic Integration I Lab: 1 semester hour.

Designed to teach, integrate and complement content from concurrent Paramedic lecture courses as well as reinforce assessment and therapeutic communication techniques while reviewing and assessing skills learned from concurrent and prior EMS coursework. COREQ: PARM 2212, PARM 2213, and PARM 2213L. Graded S/U. F

PARM 2221 Medical Emergencies: 3 semester hours.

Recognition, assessment, and treatment of medical diseases involving cardiac, respiratory, neurologic, endocrine, abdominal, hematologic, behavioral disorders, toxicology and renal systems. Includes ACLS. COREQ: PARM 2221L. PREREQ: PARM 2211, PARM 2212, PARM 2213, PARM 2213L, and PARM 2215, and acceptance into Paramedic program or permission of instructor. S

PARM 2221L Medical Emergencies Lab: 1 semester hour.

Reinforces and integrates the recognition and treatment of medical diseases as taught in PARM 2221. Skill modalities include pharmacological intervention, ECG interpretation, basic and advanced airway interventions, patient assessment, patient management, and decision-making. Graded S/U. COREQ: PARM 2221. S

PARM 2222 Trauma Care: 2 semester hours.

A comprehensive approach to assessment, injury recognition, and management of the trauma patient. An introduction of trauma systems, injury prevention, kinematics and aeromedical use and integration. Includes PHTLS. PREREQ: PARM 2213, PARM 2213L, PARM 2214, and acceptance into Paramedic program or permission of instructor. S

PARM 2223 Advanced Emergency Care: 2 semester hours.

Combined lecture/lab course focuses on the instruction and integration of skills associated with advanced airway management, renal dialysis, venous access, and pharmacological delivery systems. PREREQ: PARM 2213 and PARM 2213L and acceptance into Paramedic program or permission of instructor. S

PARM 2224 Special Populations: 3 semester hours.

A comprehensive approach to obstetrics and gynecology, including the pediatric patient from birth to adolescence. Includes introduction to gerontology - to address issues such as lifespan development, cultural diversity, polypharmacy, pathological changes, and treatment variations associated with an aging population. Includes PALS. COREQ: PARM 2224L. PREREQ: Acceptance into Paramedic program or permission of instructor. S

PARM 2224L Special Populations Lab: 1 semester hour.

Reinforces and integrates the recognition and treatment of medical diseases as taught in PARM 2224. Skill modalities include pharmacological intervention, ECG interpretation, basic and advanced airway interventions, patient assessment, patient management, and decision-making. Graded S/U. COREQ: PARM 2224. S

PARM 2225 Advanced ECG Interpretation: 2 semester hours.

An introductory 12-lead ECG interpretation course. Topics include intraventricular conduction delays, myocardial ischemia, injury and infarction, axis deviation, syndrome bundle branch blocks, ectopy, and advanced dysrhythmia interpretation. PREREQ: PARM 2211 or permission of instructor. S

PARM 2229 Paramedic Clinical Practicum I: 1 semester hour.

Student rotations through various departments in hospitals, performing paramedic skills under the direct supervision of the clinical instructor and/or assigned clinical preceptors. Skills performed include all those learned in previous coursework. Graded S/U. PREREQ: Acceptance into Paramedic program or permission of instructor. S

PARM 2231 Rescue Operations: 2 semester hours.

An introductory course to include: ambulance operations, rescue and extrication techniques, incident command and hazardous materials. The accompany laboratory portion may be taught in seminar format as necessary. PREREQ: Acceptance into Paramedic program or permission of instructor. Su

PARM 2237L Paramedic Integration II Lab: 1 semester hour.

Designed to teach, integrate, and complement content from previous Paramedic lecture and laboratory courses. Previously-learned material is reviewed, reinforced, and evaluated as necessary to maintain competency. Graded S/U. PREREQ: PARM 2217L, PARM 2221, PARM 2222, and PARM 2223. Su

PARM 2239 Paramedic Clinical Practicum II: 3 semester hours.

Supports the didactic elements of the Paramedic course. Rotations at various clinical settings including ED, OR, ICU/CCU, Crisis Intervention/Psychiatry and EMS ride-alongs with EMS/fire agencies. In addition, students complete an ACLS Provider course. Other clinical site rotations may be added or substituted as determined by the program. Graded S/U. PREREQ: PARM 2229 and acceptance into Paramedic program or permission of instructor. Su

PARM 2249 Paramedic Field Practicum II: 6 semester hours.

Capstone course for the student to apply/demonstrate the knowledge/skills learned in the program on an EMS unit. Student is under the direct supervision of an approved preceptor and is required to demonstrate competence as a team leader performing patient assessment skills and formulating a proper treatment plan for situations encountered. Mandatory benchmarks are required. Graded S/U. PREREQ: PARM 2231, PARM 2237L, and PARM 2239, and acceptance into Paramedic program or permission of instructor. F

PARM 2296 Independent Studies: 1-8 semester hours.

Addresses specific needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

PARM 2298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U or may be letter-graded. PREREQ: Permission of instructor. D

Pharmacy (PHAR)

Courses

PHAR 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PHAR 9905 Introduction to Clinical Problem Solving: 2 semester hours.

An introduction to the deductive, problem-based clinical reasoning process for identifying, preventing, and resolving drug-related problems. PREREQ: First professional year. S

PHAR 9906 Case Studies With Pharmacotherapy Lab I: 2 semester hours.

Clinical problem solving related to patient cases and integration of skills and knowledge necessary for providing patient-centered pharmaceutical care. PREREQ: Second professional year. F

PHAR 9907 Case Studies with Pharmacotherapy Lab II: 2 semester hours.

Clinical problem solving related to patient cases and integration of skills and knowledge necessary for providing patient-centered pharmaceutical care. PREREQ: PHAR 9906. S

PHAR 9908 Case Studies with Pharmacotherapy Lab III: 2 semester hours.

Clinical problem solving related to patient cases and integration of skills and knowledge necessary for providing patient-centered pharmaceutical care. PREREQ: PHAR 9907. F

PHAR 9910 First Year Recitation: 0 semester hours.

Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: First Professional Year. D

PHAR 9911 Introductory Pharmacy Practice Experience I: 1 semester hour.

Self-paced foundational learning and training for the Doctor of Pharmacy program. D

PHAR 9912 Introductory Pharmacy Practice Experience II: 1 semester hour.

Competency-based experiential training and voluntary service in approved pharmacy practice settings. PREREQ: PHAR 9911. D

PHAR 9913 Introductory Pharmacy Practice Experience III: 1 semester hour.

Competency-based experiential training and voluntary service in approved pharmacy practice settings. PREREQ: PHAR 9912. D

PHAR 9914 Introductory Pharmacy Practice Experience IV: 1 semester hour.

Competency-based experiential training and voluntary service in approved pharmacy practice settings. PREREQ: PHAR 9913. D

PHAR 9920 Second Year Recitation: 0 semester hours.

Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Second Professional Year. D

PHAR 9921 Biological Basis of Drug Actions I: 4 semester hours.

Basic concepts in pharmacology. PREREQ: First professional year. F

PHAR 9922 Biological Basis of Drug Actions II: 5 semester hours.

Basic concepts in Pharmacology. PREREQ: First professional year. S

PHAR 9923 Professional Development I: 0 semester hours.

This course will provide a forum to demonstrate and document progressive achievement of desired program competencies throughout the didactic curriculum and introductory practice experiences. Student self-assessment and reflection on educational outcomes will be emphasized. Graded S/U. PREREQ: First professional year. S

PHAR 9924 Physicochemical Basis of Drug Action: 3 semester hours.

Concepts of physical and chemical properties of drugs and how these properties affect absorption, distribution, metabolism, excretion, and pharmacological actions. PREREQ: First professional year. COREQ: BIOL 4449. F

PHAR 9926 Basic Pharmacokinetics and Calculations: 3 semester hours.

This course explores the fundamental principles of physical pharmacy, the mathematics associated with drug dispensing and compounding, and the pharmacokinetic principles related to ADME processes, the design and customization of therapeutic dosage regimens, and dosage individualization. COREQ: PHAR 9926R. S

PHAR 9926R Basic Pharmacokinetics and Calculations Recitation: 1 semester hour.

Recitation for PHAR 9926. Graded S/U. COREQ: PHAR 9926. S

PHAR 9927 Dosage Form Design and Compounding with Lab: 4 semester hours.

Principles, processes and techniques applied to design of therapeutic systems, including preparation, use and assessment of pharmaceutical dosage forms. Includes three hours of laboratory each week. PREREQ: PHAR 9926. F

PHAR 9927L Dosage Form Design and Compounding Lab: 0 semester hours.

Principles, processes and techniques applied to design of therapeutic systems, including preparation, use and assessment of pharmaceutical dosage forms. COREQ: PHAR 9927. S

PHAR 9930 Third Year Recitation: 0 semester hours.

Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Third Professional Year. D

PHAR 9931 Health Care I: 3 semester hours.

Health care systems, social and behavioral aspects of pharmacy practice, and management. PREREQ: First professional year. F, S, Su

PHAR 9933 Professional Development II: 0 semester hours.

This course will provide a forum to demonstrate and document progressive achievement of desired program competencies throughout the didactic curriculum and introductory practice experiences. Student self-assessment and reflection on educational outcomes will be emphasized. Graded S/U. PREREQ: Second professional year. S

PHAR 9941 Introduction to Pharmacy Practice and Literature I with Lab: 4 semester hours.

Introduction and socialization to the pharmacy profession. A general overview of the health care system, the role of pharmacy in health care, pharmacy law, experimental design, analysis, and career pathways within the profession. PREREQ: First professional year. COREQ: PHAR 9941L. F

PHAR 9941L Pharmacy Practice and Literature I Lab: 0 semester hours.

Experiences in the retrieval, interpretation and analysis of literature and other sources of medical information. Design and development of research projects suitable for publication. COREQ: PHAR 9941. F

PHAR 9942 Introduction to Pharmacy Practice and Literature II: 3 semester hours.

Introduction and socialization to the profession of pharmacy. A general overview of the health care system, the role of pharmacy in health care, pharmacy law, experimental design, analysis and career pathways within the profession. PREREQ: PHAR 9941. S

PHAR 9943 Professional Development III: 1 semester hour.

This course will provide a forum to demonstrate and document progressive achievement of desired program competencies throughout the didactic curriculum and introductory practice experiences. Student self-assessment and reflection on educational outcomes will be emphasized. Graded S/U. PREREQ: Third professional year. S

PHAR 9944 Health Care II: 3 semester hours.

Health care systems, social and behavioral aspects of pharmacy practice, and management. COREQ: PHAR 9944L. F, S, Su

PHAR 9944L Health Care II Lab: 1 semester hour.

Communication skills, multicultural awareness, and application of quality assurance methods. Application of principles of pharmaco-economic and humanistic outcomes research to the evaluation of patient-centered care and the marketing and delivery of medication therapy management. Graded S/U. F, S, Su

PHAR 9945 Health Care III: 4 semester hours.

Health care systems, social and behavioral aspects of pharmacy practice, and management. COREQ: PHAR 9945L. F, S, Su

PHAR 9945L Health Care III Lab: 0 semester hours.

Communication skills, multicultural awareness, and application of quality assurance methods. Application of principles of pharmaco-economic and humanistic outcomes research to the evaluation of patient-centered care and the marketing and delivery of medication therapy management. COREQ: PHAR 9945. F, S, Su

PHAR 9948 Pharmacy Law: 2 semester hours.

The study of federal and state statutes, regulations and court decisions which control the practice of pharmacy and drug distribution; and an introduction to civil liability in pharmacy practice. PREREQ: Third professional year. S

PHAR 9949 Human Physiology I: 4 semester hours.

First of a two semester sequence. Physiology of the nervous, muscular, and circulatory systems. Cross-listed as BIOL 4449. F

PHAR 9949R Human Physiology I Recitation: 0 semester hours.

Recitation for PHAR 9949. F

PHAR 9952 Pharmacotherapy Lab IV: 1 semester hour.

Integration of skills and knowledge necessary for providing pharmaceutical care. Emphasizes patient assessment and therapeutic monitoring and management. PREREQ: Third professional year. Graded S/U. D

PHAR 9956 Human Physiology II: 4 semester hours.

Physiology of the respiratory, renal, gastrointestinal, and endocrine systems. Includes studies of acid-base balance. Cross-listed as BIOL 4456. PREREQ: BIOL 4449 or PHAR 9949. S

PHAR 9956R Human Physiology II Recitation: 0 semester hours.

Recitation for PHAR 9956. S

PHAR 9961 Pharmacotherapy I: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on the appropriate selection/monitoring of drug therapy and patient counseling. PREREQ: Second professional year. D

PHAR 9962 Pharmacotherapy II: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Second professional year. D

PHAR 9963 Pharmacotherapy III: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Second professional year. D

PHAR 9964 Pharmacotherapy IV: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Second professional year. D

PHAR 9965 Pharmacotherapy V: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring and patient counseling. PREREQ: Second professional year. D

PHAR 9966 Pharmacotherapy VI: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Third professional year. D

PHAR 9967 Pharmacotherapy VII: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Third professional year. D

PHAR 9968 Pharmacotherapy VIII: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Third professional year. D

PHAR 9969 Pharmacotherapy IX: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Third professional year. D

PHAR 9970 Pharmacotherapy X: 2-5 semester hours.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring and patient counseling. PREREQ: Third professional year. D

PHAR 9971 Capstone Pharmacy: 2-5 semester hours.

Selective review of the pharmacy curriculum with emphasis on the optimization of complex pharmacotherapy regimens, medication therapy management, and therapeutic issues surrounding common disease states. Includes small group discussions, journal clubs, self-directed learning and interactive teaching methods. PREREQ: Third professional year. D

PHAR 9971R Capstone Recitation: 0 semester hours.

Recitation for PHAR 9971 Capstone Pharmacotherapeutics. D

PHAR 9981 Advanced Pharmacy Practice Experience: 7 semester hours.

Students are assigned to pharmacy practice sites including community, institutional, and clinical settings for experiential training. Requires reflection and presentation of cases for discussion. May be repeated up to 7 times. PREREQ: Fourth professional year status. F, S, Su

PHAR 9982 Professional Student Seminar: 1 semester hour.

Development of a relevant therapeutic topic including the review, analysis, and oral presentation of all appropriate medical and scientific literature. Graded S/U. PREREQ: Fourth professional year status. F, S, Su

Pharmacy Practice and Administrative Sciences (PPRA)

Courses

PPRA 3314 Basic and Applied Pharmacology for Dental Hygiene: 2 semester hours.

Basic pharmacology and therapeutic uses of selected drug groups. PREREQ: BIOL 3301 and BIOL 3302. Restricted to Dental Hygiene major. S

PPRA 3315 Pharmacology for Nursing: 4 semester hours.

Overview of the pharmacologic actions and therapeutic implications of the major classes of drugs. S

PPRA 3335 Smoking Cessation: 1 semester hour.

Knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients who use tobacco. D

PPRA 3341 Topics in Drug Utilization Review: 1-2 semester hours.

Provides additional clinical experience, knowledge and skills necessary to provide population-based therapeutic monitoring and appropriate drug use. PREREQ: Permission of instructor. F, S

PPRA 3345 Pharmacy and Therapeutics Formulary: 1 semester hour.

Examination of selected drug classes with the goal of choosing individual agents for mock formulary inclusion. Emphasis on therapeutic variances, available dosage forms and pharmacoeconomic considerations, among other parameters, will drive the selection of individual agent(s) within the selected drug class. D

PPRA 4425 Introduction to Traditional Chinese Medicine: 2 semester hours.

A survey course covering the philosophical basis of traditional Chinese medicine, diagnostic techniques and modalities of treatment. PREREQ: Permission of instructor. S

PPRA 4428 Diet Alternatives and Nutrition: 2 semester hours.

Overview of macro- and micronutrients, diet aids and supplements, and current dieting trends and their impact on the body and medications. Emphasis on nutrition and exercise in the overall health of a patient. Evidence-based evaluation of current diet trends. D

PPRA 4440 Pharmacoeconomics: 2 semester hours.

Introduction to the principles and methods for the economic evaluation of medicines such as cost-effectiveness and cost-utility analysis as well as patient-centered assessments of health-related quality of life and patient preferences or utilities. D

PPRA 4459 Externship in Pharmacy Practice: 1 semester hour.

200 hours of practical experience in a pharmacy practice environment. Graded S/U. S

PPRA 4491 Topical Seminar in Pharmacy Practice: 1-4 semester hours.

Examination of selected topics in Pharmacy Practice and Pharmacy Administration. May be repeated. PREREQ: Permission of instructor. D

PPRA 4499 Experimental Course: 1-3 semester hours.**PPRA 9907 Complementary and Natural Medicine: 2 semester hours.**

Introduction to safety and efficacy of methods and products used in treating patients outside of modern medicine. Restricted to PHARM.D. program. S

PPRA 9913 Personal Financial Management for Pharmacists: 2 semester hours.

Principles of personal financial management as applied to the graduating pharmacist. F, S

PPRA 9915 Financial Management of the Community Pharmacy: 2 semester hours.

Principles of financial management as applied to community pharmacy practice. PREREQ: PHAR 9945 and PHAR 9945L. S

PPRA 9925 Residency Readiness Elective: 2 semester hours.

This course is designed to improve the success rate of students applying for postgraduate pharmacy residency positions. Course topics include the residency application process, interviewing skills, and building one's curriculum vitae. Current pharmacy residents and residency program directors will be invited to participate in panel discussions and provide insight. Students are also required to develop and complete a research project. PREREQ: Second professional year only. S

PPRA 9926 Pharmacy Leadership and Advocacy: 1 semester hour.

The course addresses individual, team and organizational leadership perspectives. The course fosters development of student pharmacists as effective leaders and committed advocates with life long learning skills within the profession. Restricted to the PharmD Program. F

PPRA 9928 Women's Health: 2 semester hours.

This course will provide an overview of the most recent information regarding gender-based medicine, an understanding of gender-based biology, and an enhanced knowledge concerning the prevention and management of various diseases and conditions specific to women. S

PPRA 9935 Veterinary Medicine: 2 semester hours.

The goal of this elective is to help students develop a basic knowledge of veterinary therapeutics and related pharmacy/medication issues. Students will become competent providers of basic veterinary medicine topics to provide adequate services to veterinarians, animals, and caregivers. S

PPRA 9988 Independent Problems in Pharmacy Practice: 1-2 semester hours.

Advanced students are assigned special studies on the basis of interest and previous preparation. May be repeated. Restricted to PHARM.D. program. F, S

Pharmacy Technician (PHTC)

Courses

PHTC 0110 Pharmacy Law and Ethics: 2 semester hours.

An introduction to federal and state laws regulating the practice of pharmacy. Special emphasis is given to areas of state law in Idaho regulating the activities of pharmacy technicians. Course also includes a focus on the ethics that govern the specialty of pharmacy and the importance of record keeping. F

PHTC 0150 Introduction to Pharmacology: 3 semester hours.

Provides an overview of pharmacologic principles with an emphasis on therapeutic classification. For each drug classification, basic mechanism of drug actions, side effects, routes, administration, and common indications will be reviewed. Students will become familiar with generic and brand names, common abbreviations, and vocabulary terms related to drug therapy. F

PHTC 0152 Advanced Pharmacology: 3 semester hours.

Designed to teach students how to categorize the top 200 oral and injectable prescribed drugs into therapeutic classifications; be able to distinguish between generic and brand names; recognize indications, contraindications, and side effects; and significant drug interactions; time also spent correlating specific drug treatments to human medical conditions as related to anatomy and physiology. PRE-or-COREQ: PHTC 0150, PHTC 0171, PHTC 0171L. S

PHTC 0161 Extemporaneous Compounding and IV Certification: 3 semester hours.

Designed to train pharmacy technicians in the practices and equipment used in extemporaneous compounding, sterile product preparation, and aseptic technique. Prepares students to take the national certification exam through the NPTA. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0171, PHTC 0171L. COREQ: PHTC 0161L. S

PHTC 0161L Extemporaneous Compounding and IV Certification Lab: 0 semester hours.

Designed to provide pharmacy technician students with an opportunity to practice with equipment used in extemporaneous compounding, sterile product preparation, and aseptic technique. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0171, PHTC 0171L. COREQ: PHTC 0161. S

PHTC 0171 Applied Pharmacy Technology I: 3 semester hours.

Provides students with background knowledge about pharmacy practice in a variety of settings; overview of the role of the pharmacist and technician, prescription processing and filling; students will develop prescription interpretation skills. PRE-or-COREQ: PHTC 0150. COREQ: PHTC 0171L. F

PHTC 0171L Applied Pharmacy Technology Lab I: 0 semester hours.

Practice of prescription interpretation, processing, and filling in both ambulatory and hospital settings utilizing both paper and electronic assignments. Includes information on insurance billing, purchasing, inventory control; medication errors and customer service. PRE-or-COREQ: PHTC 0150. COREQ: PHTC 0171. F

PHTC 0172 Applied Pharmacy Technology II: 2 semester hours.

Provides students with the knowledge and skills necessary for competent performance of technical pharmacy tasks in institutional and ambulatory settings, especially sterile products preparation, pharmacy calculations and unit dose drug distribution systems. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0161, and PHTC 0161L. COREQ: PHTC 0172L. S

PHTC 0172L Applied Pharmacy Technology II Lab: 0 semester hours.

Provides students with an opportunity to practice the knowledge and skills necessary for competent performance of technical pharmacy tasks in institutional and ambulatory settings, especially sterile products preparation, pharmacy calculations and unit dose drug distribution systems. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0161, PHTC 0161L, PHTC 0171, PHTC 0171L. COREQ: PHTC 0172. S

PHTC 0175 Pharmacy Technician Certification Exam Preparation: 1 semester hour.

Designed to prepare students for the National Pharmacy Technician Certification Exam. Course covers major areas of focus on the exam such as assisting the pharmacist in serving the patients; maintaining medication and inventory control systems, and participating in the management of pharmacy practice. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0161, PHTC 0161L, PHTC 0171, PHTC 0171L, PHTC 0172, PHTC 0172L, PHTC 0182, PHTC 0187. Su

PHTC 0182 Pharmacy Technician Practicum and Seminar I: 5 semester hours.

This is a supervised pharmacy technician practice in a retail or institutional setting. Instruction and guidance are provided by the staff of the participating pharmacy. Emphasis is on the application of classroom content in the pharmacy setting. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0161, PHTC 0161L, PHTC 0171, PHTC 0171L, PHTC 0172, PHTC 0172L. S

PHTC 0187 Pharmacy Technician Practicum and Seminar II: 5 semester hours.

This is a second supervised pharmacy technician practice in a retail or institutional setting. Instruction and guidance are provided by the staff of the participating pharmacy. Emphasis is on the application of classroom content in the pharmacy setting. PRE-or-COREQ: PHTC 0150, PHTC 0152, PHTC 0161, PHTC 0161L, PHTC 0171, PHTC 0171L, PHTC 0172, PHTC 0172L, PHTC 0182. Su

Philosophy (PHIL)

Courses

PHIL 1101 Introduction to Philosophy: 3 semester hours.

An introduction to the major thinkers and major problems in Western philosophical and scientific traditions. Sections may emphasize either an historical or problems approach. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

PHIL 1103 Introduction to Ethics: 3 semester hours.

An introduction to philosophy through an analytical and historical study of major ethical theories. The course will focus on the basis of judgments and reasoning concerning questions of good and bad, right and wrong. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

PHIL 2201 Introduction to Logic: 3 semester hours.

An introduction to the concepts and methods of deductive and inductive logic, with special emphasis on the use of logical methods to identify, analyze, construct, and evaluate everyday arguments. Satisfies Objective 7 of the General Education Requirements. R1

PHIL 2210 Introduction to Asian Philosophies: 3 semester hours.

A study of Hindu, Buddhist, and other Far Eastern approaches to topics such as immortality, time, reality, mystical experience, the divinity of the soul, the question of duty. Emphasis varies. Satisfies Objective 9 of the General Education Requirements. R2

PHIL 2220 Philosophical Issues in Religion: 3 semester hours.

An inquiry into the nature of religious belief, the concept of God, rational proofs of the existence of God, the religious experience, the concept of faith, the character of religious language, the meaning of myths and symbols, and the question of modern atheism. R2

PHIL 2230 Medical Ethics: 3 semester hours.

An examination of ethical issues that arise in medical practice. Topics may include informed consent, withdrawing life-sustaining treatment, abortion, assisted suicide, and the allocation of scarce resources. F, S, Su

PHIL 2250 Contemporary Moral Problems: 3 semester hours.

Examination of ethical issues that arise in modern society. Topics may include global justice, same-sex marriage, human and animal rights, abortion, affirmative action, climate change, and war. R1

PHIL 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PHIL 3305 History of Philosophy Greek Reason and Christian Faith: 3 semester hours.

Philosophical readings from the pre-Socratics to St. Thomas Aquinas. Topics include the theory of essence, human nature and happiness, the problem of evil, the relation of reason and faith. R2

PHIL 3315 History of Philosophy Early Modern Philosophy: 3 semester hours.

Readings in philosophy from Descartes to Kant. Rationalist and empiricist answers to questions concerning the source and scope of human knowledge. R2

PHIL 3325 History of Philosophy Modern Philosophical Movements: 3 semester hours.

Readings in philosophy of the 19th and 20th centuries. Organized to illuminate the development of particular schools of thought, including existentialism, pragmatism, phenomenology, analytic philosophy, and Marxism. Emphasis varies. D

PHIL 3353 Philosophy of Law: 3 semester hours.

An investigation of historical and contemporary theoretical approaches to law and a variety of philosophical problems that arise with respect to the law. Topics include natural law theory, legal positivism, legal realism, Constitutional interpretation, theory of punishment, and civil liberties. R2

PHIL 3355 Political and Social Philosophy: 3 semester hours.

Questions concerning social justice as discussed by Plato, Aristotle, Hobbes, Locke, Hegel, Marx and others. D

PHIL 4400 Philosophy of Art: 3 semester hours.

Study of philosophic problems encountered in perceiving, interpreting, and evaluating works of art. Topics include the nature of a work of art, aesthetic response, expression, symbol; the nature and role of representation; the nature of interpretive and evaluative claims. R2

PHIL 4410 Philosophy of Language: 3 semester hours.

Study of theories of language, with emphasis on contemporary thinkers such as Frege, Heidegger, Russell, Wittgenstein, Piaget, and Chomsky. Topics include the nature and origin of meaning, the temporal dimension of discourse, the significance of syntax, animal languages, computer languages. D

PHIL 4420 Philosophy of Mind: 3 semester hours.

Inquiry into the mind-body problem and representative solutions, such as dualism, philosophical behaviorism, central-state materialism. Related topics include the self, personal identity, immortality, claims of parapsychology, mystical consciousness. R2

PHIL 4425 Existentialism: 3 semester hours.

A survey of major works of Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus. Topics may include the origins of values, the death of God, the varieties of despair, the inevitability of love's failure and the absurdity of life. R2

PHIL 4430 Philosophy of Science: 3 semester hours.

A survey of the philosophical issues related to science. Topics include the nature of scientific theories, science and non-science, scientific explanation and causation, realism and anti-realism in science, and scientific revolutions. R2

PHIL 4435 Metaphysics: 3 semester hours.

A study of some of the main questions of metaphysics, including such topics as being, substance, universals, space and time, appearance and reality, identity, freewill and determinism, causality and the nature and possibility of metaphysics itself. D

PHIL 4440 Philosophy and Literature: 3 semester hours.

Reflections on the relation between poetic and speculative discourse. Topics include forms of consciousness, temporality and narrative, metaphysics of genre. Equivalent to ENGL 4440. D

PHIL 4450 Ethical Theory: 3 semester hours.

Study of the nature of value claims, stressing ethical value claims; examination of the scope of reason in ethical decision-making. Applications to normative ethical theories. Related topics include human rights, justice, ethical and legal systems. R2

PHIL 4454 Topics in Biomedical Ethics: 3 semester hours.

This course examines a selection of current issues in biomedical ethics. Theoretical frameworks for analyzing ethical issues will be explored. The nature of the issues will be clarified, and the application to them of ethical theories and principles will be considered. Issues to be considered will vary and will be guided by current debates in biomedical ethics, such as gene editing technology, assisted dying, or the ethical limits of screening and vaccination programs. R2

PHIL 4455 Environmental Ethics: 3 semester hours.

Examination of ethical issues that arise in our relationship with the natural environment. Topics include the moral status of non-human animals and ecosystems, the nature and value of wilderness, endangered species, human population, human poverty, sustainable growth, and climate change. R1

PHIL 4456 Ethical Issues in Healthcare Law and Policy: 3 semester hours.

This course examines the ethical issues that arise from the laws, institutional policies, and professional standards that shape healthcare. In addition to describing ethical systems and principles, the course will cover issues such as ethical concerns with strategies to control healthcare costs, the abuse of laws to protect conscientious refusals, physician conflicts of interest, and responding to medical errors. R1

PHIL 4460 Theory of Knowledge: 3 semester hours.

A survey of topics in epistemology such as the nature of knowledge, the problem of skepticism, and the nature of justification. Various claims about the sources of knowledge, and accounts of a priori knowledge and truth will also be considered. Readings from classical and contemporary sources. R2

PHIL 4470 Symbolic Logic and Foundations of Mathematics: 3 semester hours.

A comprehensive study of formal methods of determining validity and of systems of symbolic logic, with attention to the philosophy of logic and the relationship between logic and mathematics. D

PHIL 4480 Philosophy Tutorial: 2 semester hours.

Consultation course for seniors interested in a philosophical problem connected with their major field. Will consist of independent reading, conferences, and the preparation of a term paper. May be repeated for up to 6 credits. F, S

PHIL 4490 Philosophy Seminar: 1-3 semester hours.

Advanced reading and discussion on selected topics in philosophy. May be repeated with permission of the department. D

Physical Educ (PE)

Courses

PE 1160 Women's Rape Aggression Defense: 1 semester hour.

Realistic self-defense tactics and techniques designed for women. Awareness, prevention, risk reduction, risk avoidance, and basic hands-on defense training. R.A.D. is not a Martial Arts program. Equivalent to HE 1160. PREREQ: Permission of Public Safety Office or sponsoring program. F, S

PE 2200 Team Building Leadership: 2 semester hours.

Trains individuals to facilitate and lead on a challenge course. Setup and dismantling of an Alpine Tower course, facilitation of large and small team building groups, safety and rescue techniques. Designed to train participants in pursuit of employment within the challenge course industry. F

PE 2205 Methods and Techniques of Gymnastics: 2 semester hours.

Fundamental methods and techniques for teaching a variety of gymnastic activities, including tumbling and apparatus. D

PE 2222 First Aid CPR and Sport Safety: 3 semester hours.

Course includes training in first aid, CPR and sport safety. The course also covers strategies for reducing the risk of suffering a heart attack. The sport safety portion will cover sports-related injury prevention. F, S, Su

PE 2223 Foundations of Physical Education and Sport: 3 semester hours.

Study, survey, history, philosophy, and ethics of the allied fields and specialty areas of physical education and sport. F, S, Su

PE 2235 Activity Performance Techniques I: 3 semester hours.

Laboratory enhanced skills in field based activities and games. Emphasis on participant skill development and -performance. F, Su

PE 2236 Activity Performance Techniques II: 3 semester hours.

Laboratory enhanced skills in racquet and court sports. Emphasis on participant skill development and performance. S, Su

PE 2237 Activity Performance Techniques III: 3 semester hours.

Laboratory-enhanced skills in fitness and conditioning-based recreation, nontraditional games and activities. Emphasis on skill development and performance. F, Su

PE 2241 Sports Officiating: 1 semester hour.

Proper instruction for game officials and coaches including knowledge of rules, mechanisms of officiating, and game administration. May be repeated for up to 4 credits. D

PE 2243 Anatomical Foundations of Human Activity: 3 semester hours.

Study of human body structure including the neuromuscular, skeletal, circulatory, respiratory, digestive, endocrine, reproductive, and organ systems. Course is designed for health and physical education candidates. F, S, Su

PHIL 4492 Senior Tutorial: 3 semester hours.

A culminating course for senior majors. Directed research resulting in a senior thesis, to be evaluated by the philosophy faculty. PREREQ: 90 credits and permission of the Director of Philosophy. S

PHIL 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PE 2259 Lifeguarding: 2 semester hours.

Provides a fundamental knowledge and practical application of principles involving lifesaving techniques in an aquatic environment. Academic course work and pool activity are required of all candidates. Can result in American Red Cross certification. Su

PE 2271 Winter Survival Skills: 1 semester hour.

Designed to equip candidates with knowledge necessary for a 72 hour winter survival situation. Content includes winter shelter building, recognizing and treating frostbite, signaling, fire building, survival psychology, nutrition needs, clothing and equipment. S

PE 2272 Wilderness Survival Skills: 1 semester hour.

Designed to provide candidates with knowledge and skills necessary to survive a 72 hour emergency (summer and fall seasons). Includes signaling, shelter building, hypothermia, survival kits, fire building, direction finding and desert hazards. F

PE 2280 Winter Camping and Backcountry Travel: 1 semester hour.

Techniques, equipment and safety of overnight winter wilderness travel, backcountry skiing and snowshoeing. PREREQ: Permission of instructor. S

PE 2281 Practical Outdoor Skills: 1 semester hour.

Study and application of knowledge and skills common to most outdoor activities, and ways in which such skills can be integrated in school, youth and adult activity programs. Practical outdoor knots, map and compass, sheltering strategies, outdoor emergencies, safety procedures, minimal impact techniques, and outdoor team building. F, S

PE 2282 Map Compass and Backcountry Navigation: 1 semester hour.

Practical application of map and compass and wilderness navigation concepts including map and field bearings, declination, resection, contour line interpretation, GPS receiver use, map types, scales, and coordinate systems. F

PE 2283 Leave No Trace Trainer: 1 semester hour.

Principles and practices of minimum impact outdoor techniques including traveling approaches, waste disposal, campsite placement, outdoor ethics, state/federal land management requirements, and sport-specific procedures. Students receive "Leave No Trace" national certification. F

PE 2284 Intermediate Kayaking and Whitewater Safety: 1 semester hour.

Combines practical field experience in moving water with a study of river safety and accident prevention. Topics include hazard evaluation, self and team rescue, case history review, and whitewater safety procedures. PREREQ: PEAC 1175A or permission of instructor. F, S

PE 2285 Wilderness First Aid: 1 semester hour.

Provides an introduction to First Aid and patient care in remote settings. Includes wound and infection management, realigning fractures and dislocations, improvised splinting techniques, patient monitoring and long-term management problems, and up-to-date information on environmental emergencies. F, S

PE 2286 Avalanche and Winter Sports Safety: 1 semester hour.

A study of snow, winter hazards, avalanche safety and rescue. Topics include basic snow physics, crystal identification, metamorphic processes, factors influencing avalanches, use of transceivers, snow pack evaluation, and avalanche rescue techniques. S

PE 2287 Snowboard Instructor Training: 1 semester hour.

Indoors: mechanics of snowboarding, teaching progressions, effective teaching styles and snowboarding techniques. Outdoors: teaching progressions, snowboarding demos and snowboarding tips. F

PE 2288 Ski Instructor Training: 1 semester hour.

Indoors: skiing mechanics, teaching progressions, effective teaching styles and skiing techniques. Outdoors: teaching progressions, skiing demos and techniques for improved skiing. F

PE 3300 Movement Theory and Motor Development: 3 semester hours.

Introduces the candidate to the science of developmental human movement including fundamental concepts of movement behavior presented in a bio-social context and the concepts of learning in the psychomotor domain. F, S

PE 3301 Physiology of Exercise: 3 semester hours.

Theoretical and applied study of the effects of physical work and exercise on physiological processes of the human body. Lecture and laboratory. PREREQ: PE 2243, or BIOL 3301 and BIOL 3302. COREQ: PE 3301L. F, S, D

PE 3301L Physiology of Exercise Laboratory: 1 semester hour.

Physiological experiments and testing. COREQ: PE 3301. F, S, D

PE 3302 Biomechanics: 3 semester hours.

The study of anatomical and mechanical principles that apply to human movement. Study will include exercise and sport applications. Lecture and laboratory. PREREQ: PE 2243, or BIOL 3301 and BIOL 3302; and PHYS 1100 or PHYS 1111. COREQ: PE 3302L. F, S, D

PE 3302L Biomechanics Laboratory: 1 semester hour.

Biomechanical experiments and testing. COREQ: PE 3302. F, S, D

PE 3303 Kinesiology for Teachers and Coaches: 3 semester hours.

The study of the scientific foundations of human activity including exercise physiology and biomechanics. Some laboratory activities included. Course is designed for non-exercise science emphasis health and physical education candidates. PREREQ: PE 2243. S

PE 3312 Practical Applications of Coaching Baseball and Softball: 2 semester hours.

Essential elements of coaching baseball and softball. Emphasis on application and practice in the educational setting. D

PE 3313 Practical Applications of Coaching Basketball: 2 semester hours.

Essential elements of coaching basketball. Emphasis on application and practice in the educational setting. F

PE 3314 Practical Applications of Coaching Football: 2 semester hours.

Essential elements of coaching football. Emphasis on application and practice in the educational setting. S

PE 3315 Practical Applications of Coaching Soccer: 2 semester hours.

Essential elements of coaching soccer. Emphasis on application and practice in the educational setting. D

PE 3316 Practical Applications of Coaching Tennis: 2 semester hours.

Essential elements of coaching tennis. Emphasis on application and practice in the educational setting. D

PE 3317 Practical Applications of Coaching Track and Field: 2 semester hours.

Essential elements of coaching track and field. Emphasis on application and practice in the educational setting. S

PE 3318 Practical Applications of Coaching Volleyball: 2 semester hours.

Essential elements of coaching volleyball. Emphasis on application and practice in the educational setting. S

PE 3319 Practical Applications of Coaching Wrestling: 2 semester hours.

Essential elements of coaching wrestling. Emphasis on application and practice in the educational setting. D

PE 3322 Introduction to Sport Psychology: 3 semester hours.

Study of theoretical and applied psychological parameters in sport settings. Specific topics include the coach-athlete relationship and issues in sport performance. Also includes motivation, leadership, communication, ethics, and intervention strategies. F, S

PE 3357 Methods of Teaching Elementary Physical Education: 3 semester hours.

Prepares candidates to teach elementary physical education activities. Emphasis on a variety of teaching methods and their application to all skill levels at the elementary level. PREREQ: Admission to College of Education Teacher Education Program or permission of instructor. F, S, Su

PE 3358 Water Safety Instructors Course: 3 semester hours.

Techniques of teaching swimming, diving, and community water safety skills including small craft safety. Emphasis on skill progressions and planning/organizing courses. American Red Cross certificate awarded if examination is passed. Su

PE 3362 Tests and Measurements in Physical Education: 3 semester hours.

Study of constructive practical and written tests applicable to physical education. Study of the theory of practice of test administration, brief study of statistical methods and measurements in physical education. F

PE 3364 Introduction to Sport Law: 3 semester hours.

Study of the law as it relates to physical education and sport. Includes fields of tort law, criminal law, contract law, and constitutional law as they relate to physical education and sport settings. F

PE 3366 Sport Marketing: 3 semester hours.

Study of sport marketing theory, basic economics, accounting, and budgeting principles. Additional topics will also include sport marketing strategies and tactics, sponsorships, and sport licensing. S

PE 3370 Care and Prevention of Athletic Injuries: 3 semester hours.

Basic care, prevention, evaluation, and rehabilitation of athletic injuries. Includes instruction in athletic taping and wrapping. PREREQ: PE 2243, or BIOL 3301 and BIOL 3302. F, S

PE 3380 Field Experience: 1 semester hour.

Orientation, observation, planning and supervised experience exposes the candidate to activity instruction under the direction of a major advisor. D

PE 3381 River Safety and Swiftwater Rescue: 1 semester hour.

A comprehensive safety and rescue course for river users and rescue service personnel. Topics include safety equipment, river hazards, river crossings, tag line procedures, zip line and Z-pulley use, moving water extrications, and first aid considerations. Su

PE 3383 Advanced Rock Climbing and Climbing Safety: 2 semester hours.

A comprehensive examination of climbing safety - anchor placement, self-rescue, belaying, route protection, case history review, equipment limitations - along with field experience including lead and aid climbing, advanced knots, movement techniques, and minimal impact procedures. PREREQ: PEAC 1176A or permission of instructor. S

PE 3384 Outdoor Risk Management and Liability: 3 semester hours.

Legal implications of outdoor recreation programming including a study of tort liability, risk evaluation, relevant case law, legal management strategies, and the use of waivers and releases. F

PE 3386 Outdoor Leadership: 3 semester hours.

Designed to provide candidates with the knowledge to organize and lead outdoor activities. Includes leadership styles, liability, program promotion, planning, safety, and environmental impact. Practical experiences are included. S

PE 4413 Sport in Cinema: 3 semester hours.

Investigate sport, and the treatment of sport, through the medium of modern cinema. Sport will be analyzed from the sociological, psychological, moral and ethical perspective of the filmmakers. D

PE 4414 Athletic Performance Nutrition: 3 semester hours.

Review of nutritional requirements and strategies for optimal human performance across the lifespan. PREREQ: PE 3301 & PE 3301L or permission of the instructor. S

PE 4427 Personal Trainer Certification: 3 semester hours.

Theoretical knowledge and practical skills in preparation for national certification exam in personal training. Guidelines for instructing safe, effective and purposeful exercise; essentials for the client-trainer relationship, conducting health and fitness assessments, and designing and implementing appropriate exercise programming. S

PE 4428 Principles of Strength and Conditioning: 3 semester hours.

Strength and conditioning principles for athletic populations. Follows recommendations of National Strength and Conditioning Association. Course covers physiological and biomechanical principles, program design and implementation, proper strength training technique, coaching strategies, basic nutrition and facility maintenance/administration. This course will prepare students to sit for the CSCS exam during the last semester of their senior year. PREREQ: PE 3301 and PE 3301L, PE 3302 and PE 3302L or permission of the instructor. S

PE 4437 Methods of Teaching Secondary Physical Education: 3 semester hours.

Designed to prepare the candidate for teaching secondary physical education activities. Emphasis on a variety of teaching methods and their application to all skill levels at the secondary level. PREREQ: Admission to College of Education Teacher Education Program or permission of instructor. S

PE 4440 Survey of Outdoor Education Literature: 3 semester hours.

An examination of recent research, literature and contemporary writing in outdoor education. Course work consists of a series of reading assignments followed by oral reports and class discussions. F

PE 4441 Wilderness First Responder Certification: 3 semester hours.

80-hour certification program, including cardiac and respiratory emergencies, allergies and anaphylaxis, wound management and infection, neurological and spinal injuries, realignment of fractures and dislocations, rescue and extraction, patient monitoring and long term management problems. S

PE 4445 Methods of Teaching Outdoor Activities and Practicum: 3-4 semester hours.

This culminating course for outdoor education minors consists of two parts: a study of the objectives, programs and methods of teaching outdoor recreation activities followed by a practicum experience in which candidates assist in teaching and leading outdoor activities. PREREQ: PE 3386, PE 4440, and permission of instructor. S

PE 4454 Senior Capstone: 3 semester hours.

Professional development strategies for all undergraduate majors in Sport Science and Physical Education. Explore job strategies, career development opportunities, and field and research experience in the professional areas of Sport Management, Exercise Science, Physical Education Teaching, and Outdoor Education. PREREQ: Permission of instructor. F, S

PE 4465 Organization and Administration of Intramural Sports: 3 semester hours.

Study of various methods of organizing and administering intramural sports programs on the junior high school, high school, and college levels. D

PE 4473 Facilities Planning and Design: 3 semester hours.

An investigation of the various components, principles, and fundamental practices involved in facility planning and design for physical education, athletics, and recreation. S

PE 4475 Organization and Administration of Physical Education: 3 semester hours.

Study of the management theory and practices utilized in conducting physical education and sport programs. Emphasis will be placed on interscholastic as well as intercollegiate physical education and athletic programs. F

PE 4480 Coaching Problems: 1-3 semester hours.

Athletic control, eligibility, new coaching techniques, finances, safety measures, public relations, duties of coaches, managers, and officials. May be repeated for up to 4 credits. F, S, Su

PE 4481 Coaching Clinic: 1 semester hour.

Idaho State University is a sponsor of the annual Idaho Coaches Association Clinic held during the first week of August. Instruction offered in football, basketball, and other sports by coaches of national reputation. Total cost of registration at the clinic, board, room, and privileges for the full period of the clinic will be about \$50. An extra fee will be charged for those who register at the clinic for credit. May be repeated for up to 6 credits. Graded S/U. Credits will not be acceptable for degree completion requirements/electives. D

PE 4482 Mechanical Analysis of Human Movement: 3 semester hours.

Advanced study of assessing human motion patterns. Course will include computer analysis and videography techniques along with various field analysis techniques utilized in physical skill analyses. PREREQ: PE 3302. F, S

PE 4484 Exercise Assessment and Prescription: 3 semester hours.

Design and principles of exercise assessment procedures in physical education and sport setting. Physical Fitness testing concepts and procedures will be covered along with the principles involved when prescribing exercise programs for physical education and sport participants. PREREQ: PE 3301. F, S

PE 4485 Independent Problems in Physical Education: 1-3 semester hours.

Individual work under staff guidance. Field and/or library study on specific physical education problems of interest to majors and minors. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

PE 4490 Practicum in Physical Education: 1-16 semester hours.

Practical experience in a field based setting, congruent with candidate's employment goals. May require multiple experiences in a variety of settings outside K-12 school settings. F, S, Su

PE 4491 Physical Education Workshop: 1-3 semester hours.

Critical analysis of one or more areas of physical education. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

PE 4493 Issues in Sport: 3 semester hours.

Review and discussion of current topics in sport as related to issues of social justice, diversity, and ethics. PREREQ: General Education Goal 1. S, ASu

PE 4494 Adapted Physical Activity: 3 semester hours.

History, philosophy, and the teaching/learning processes in providing adapted physical activity in schools and community-based settings. Includes clinical experiences. PREREQ: BIOL 3301 or equivalent, or PE 2243, PE 3300, and PE 3362. S

PE 4495 Physical Education Student Teaching Internship: 7-14 semester hours.

Observation and teaching under supervision in approved physical education programs with the opportunity to assume direct responsibility for the learning activities of secondary level students. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and approved application for student teaching. Graded S/U. F, S

Physical Educ Activity (PEAC)

Courses**PEAC 1100 Adaptive Martial Arts: 1 semester hour.**

Adaptive and corrective exercise programs in the martial arts (including judo and tae kwondo) designed for individuals unable to participate in a regular activity class. F, S

PEAC 1101 Adaptive Snow Skiing: 1 semester hour.

Adaptive and corrective exercise program in snowskiing designed for individuals unable to participate in a regular activity class. S

PEAC 1102 Adaptive Waterskiing: 1 semester hour.

Adaptive and corrective exercise program in waterskiing designed for individuals unable to participate in a regular activity class. Su

PEAC 1103 Adaptive Swimming: 1 semester hour.

Adaptive and corrective exercise programs in aquatics designed for individuals unable to participate in a regular activity class. Su

PEAC 1104 Adaptive Weight Training: 1 semester hour.

Adaptive and corrective exercise programs in progressive body building and conditioning exercises designed for individuals unable to participate in a regular activity class. F, S

PEAC 1105 Seated Aerobics: 1 semester hour.

Adaptive and corrective exercise programs designed to improve cardiovascular fitness, flexibility, and strength. D

PEAC 1107 Instructor Training of Adapted Waterskiing: 1 semester hour.

Methods and techniques of teaching waterskiing to people with disabilities. Su

PEAC 1108 Instructor Training of Adapted Snowskiing: 1 semester hour.

Methods and techniques of teaching snowskiing to people with disabilities. S

PEAC 1109 Instructor Training of Adapted Sport: 1 semester hour.

Methods and techniques of teaching a variety of sport skills to people with disabilities. F, S

PEAC 1110 Military Style Physical Fitness Civilian Only: 1 semester hour.

Participate in and learn to lead a physical fitness program. Emphasis on developing an individual fitness program and the role of exercise and fitness in one's life. Equivalent to MSL 1110. F, S

PEAC 1120 Introduction to Pilates Equipment: 1 semester hour.

Introduction of the Pilates-based methods of equipment exercise and how to safely perform some of the basic fundamental movements with the equipment. F, S

PEAC 1121A Beginning Pilates Matwork: 1 semester hour.

Provides an introduction to this form of exercise and direction on how to perform some of the basic fundamental movements performed on the floor. F, S

PE 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PEAC 1121B Intermediate Pilates Matwork: 1 semester hour.

Build upon basic skills learned in beginning matwork course. More advanced floor Pilates skills in building understanding of technique and how technique relates to Pilates apparatus. PREREQ: PEAC 1121A or permission of instructor. D

PEAC 1122A Beginning Yoga: 1 semester hour.

Introduction to Yoga practice; building and developing strength, balance, flexibility and an appreciation for controlled movement. F, S

PEAC 1122B Intermediate Yoga: 1 semester hour.

Course builds upon basic skills learned in beginning yoga. More advanced skills in building and developing strength, balance, flexibility and an appreciation for controlled movement. F, S

PEAC 1122D Yoga Sports Conditioning: 1 semester hour.

Yoga practice; building and developing strength, balance, flexibility and an appreciation for controlled movement with an emphasis based upon the considerable strength and flexibility in the legs, hips and ankles that are required in sport participation. Physiological self assessments and safety will be covered. F, S

PEAC 1124 Triathlon Training: 1 semester hour.

Participants will work on their swimming, biking, and running skills as well as learn the rules and valuable tips for completing triathlons successfully. Physiological self assessments and safety will be covered. F, S

PEAC 1125 Fitness Trend: 1 semester hour.

Introduction to specific activity in the fitness field. F, S, Su

PEAC 1126 Self Defense: 1 semester hour.

Applications of self-defense within the framework of mixed martial arts. F, S, Su

PEAC 1127 Wrestling: 1 semester hour.

For wrestlers with any experience level, focusing on bringing wrestlers to the highest level of wrestling technique, strategy and training. The wrestlers will learn to wrestle through smart drilling techniques, specialized live wrestling drills and matches. Wrestling technique learned will be folkstyle wrestling. F, S

PEAC 1128 Shorin Ryu Karate: 1 semester hour.

Shorin Ryu karate is taught in the traditional Japanese style. The course will explore the movements of the style and how these movements relate to self-defense through the study of Kata (forms). The course will emphasize the building of character, self-discipline, humility, as well as a respect for self and others. F, S

PEAC 1129 Shoshin Ryu: 1 semester hour.

Classical martial arts system that blends the most current teaching practices with effective, centuries-old methods of instruction in order to teach students effective self-defense techniques. F, S

PEAC 1130 Aquacise: 1 semester hour.

Techniques of water exercises for physical conditioning. Physiological self-assessments and water safety will be covered. F, S

PEAC 1131D Aerobics Toning and Conditioning: 1 semester hour.

Elementary techniques and modalities of aerobic exercise with an emphasis on toning exercises and cardiovascular conditioning. Includes physiological self assessments and safety. F, S

PEAC 1131E Aerobics Boot Camp: 1 semester hour.

Elementary techniques and modalities of aerobic exercise incorporating a full body workout that works all major muscle groups with boot camp style drills such as push-ups, jumping jacks, and abdominal exercises. Includes physiological self-assessments and safety. F, S

PEAC 1131F Aerobics Core Fitball: 1 semester hour.

An aerobic style workout that incorporates a balance ball to perform exercises, designed to increase the participant's core strength and stability, flexibility, range of motion, balance, and coordination. Includes physiological self assessments and safety. F, S

PEAC 1131G Aerobics Kickboxing: 1 semester hour.

An aerobic style workout which combines elements of boxing, martial arts, and aerobics to provide overall physical conditioning and toning. Includes physiological self assessments and safety. F, S

PEAC 1131H Aerobics Zumba: 1 semester hour.

An aerobic style workout that is a fusion of Latin and International music that creates a dynamic, effective fitness system. The routines feature interval training sessions where fast and slow rhythms and resistance training are combined to tone and sculpt your body while burning fat. Includes physiological self assessments and safety. F, S

PEAC 1131J Aerobics Nutrition and Weight Management: 1 semester hour.

This aerobic/fitness class is designed to introduce students to a wide variety of cardiovascular training modalities, develop a fitness plan, and aid students in gaining the necessary skills to select the foods that promote health and develop a weight management plan. Includes physiological assessments, body composition testing, and safety. F, S

PEAC 1131K Aerobics Turbokick: 1 semester hour.

Intense kickboxing moves and dance moves choreographed to high energy music, providing a cardiovascular challenge that blends intense intervals strength/ endurance training and cool-down. Includes physiological self assessments and safety. F, S

PEAC 1131M Aerobics Cardio Jam: 1 semester hour.

This course is designed to help students improve their physical fitness through-- but is not limited to--kickboxing, yoga, pilates, and other forms of cardiovascular and muscle toning exercises. Includes physiological self assessments and safety. F, S

PEAC 1131N Aerobics Cardio Hip Hop: 1 semester hour.

A cardiovascular workout that includes the latest hip hop dance moves and routines. Basic moves are built upon to make this class available to everyone from the non-dancer to advanced skill level. Includes physiological self assessments and safety. F, S

PEAC 1131P Interval Training: 1 semester hour.

Interval Cross Training is a class designed to combine the advantages of interval training and the benefits of cross training exercises. Develop proper technique and safety involved in Interval Cross Training, as well as proper posture and alignment for stronger, healthier body. Increase cardiovascular health, muscular strength and endurance, increase flexibility and improve body composition. F, S, Su

PEAC 1132 Individualized Physical Education: 1 semester hour.

Introduction to lifetime fitness programming components with individually-designed programs. Physiological self-assessments, safety, and equipment are covered. F, S

PEAC 1132A Spinning: 1 semester hour.

Fitness class using spinning/stationary bicycles. Develop cardiovascular endurance (aerobic and anaerobic) and muscular strength and endurance. Music is used as a tool to motivate and inspire, as well as establish the pace, rhythm and energy level of the class. F, S, Su

PEAC 1133 Jogging and Personal Fitness: 1 semester hour.

Fitness-oriented course, designed for students who wish to maintain or increase their present fitness level. Physiological self-assessments and safety are covered. F, S

PEAC 1134A Beginning Weight Training: 1 semester hour.

Instruction and participation in fundamentals of progressive body-building and conditioning with resistance, including various modalities. Physiological self-assessments and safety will be covered. F, S, Su

PEAC 1134B Intermediate Weight Training: 1 semester hour.

Instruction and participation in fundamentals of progressive body-building and conditioning with resistance, including various modalities. Designed for the intermediate lifter. F, S

PEAC 1135A Introduction to Hatha Yoga: 1 semester hour.

Introduction to yoga philosophy, beginning postures, and techniques of breathing, relaxation, and meditation. Progressive method builds strength, flexibility, and balance, and is adaptable to all ability levels. Special emphasis on proper alignment and diaphragmatic breathing. F, S

PEAC 1135B Intermediate Hatha Yoga: 1 semester hour.

Course builds upon basic skills learned in introductory course, including addition of more challenging postures, advanced breathing and relaxation techniques, while continuing to build flexibility, strength and balance. More attention given to yoga philosophy and meditation. PREREQ: PEAC 1135A or permission of Instructor. D

PEAC 1136 Target Fit TM Conditioning: 1 semester hour.

Target Fit (TM) system used for over 115 different weight room type exercises while learning resistance training. Resistance training options allow students to improve muscular strength, overall cardiovascular endurance and flexibility while improving bone density. F, S

PEAC 1137 Marathon Training: 1 semester hour.

Physical, mental and spiritual training principles for beginning runners training to complete marathons. D

PEAC 1138 Kendo: 1 semester hour.

Introduction to principles and philosophies of Kendo, including training hall etiquette, basic sword handling, combat stances, footwork and striking a target. D

PEAC 1139A Beginning Fencing: 1 semester hour.

Introduction to the basic skills of foil fencing including equipment, grip, salute, on-guard, advance, retreat, lunge, and defense. Includes safety concerns, basic strategies, and rules. F, S

PEAC 1139B Intermediate Fencing: 1 semester hour.

Continuation and expansion of the basic skills included in the beginning course with the addition of parries, engagements, and advanced attacks. Also includes advanced strategies. F, S

PEAC 1140A Beginning Billiards: 1 semester hour.

Introduction to the fundamental skills involved in billiards: technique, game play, scoring, and etiquette. F, S

PEAC 1140B Intermediate Billiards: 1 semester hour.

Designed for the intermediate level player; this course explores a variety of more advanced shots and strategies. F, S

PEAC 1141A Fundamentals of Bowling: 1 semester hour.

Introduction to fundamental skills, scorekeeping, handicaps, and rules of bowling. F, S

PEAC 1141B Intermediate Bowling: 1 semester hour.

Designed for the intermediate level bowler, this course builds upon the skills and knowledge of the fundamentals course. F, S

PEAC 1141C Advanced Team Bowling: 1 semester hour.

Introduction to more advanced individual techniques and skill assessment and corrections for bowling. F, S

PEAC 1142A Beginning Golf: 1 semester hour.

Fundamental philosophies and techniques of golf, including grip, use of irons, woods, and putter, and etiquette. F, S, Su

PEAC 1142B Intermediate Golf: 1 semester hour.

Designed for the intermediate golfer, this course builds on the acquisition of skill in the fundamental strokes; etiquette; and more advanced reading of the course. F, S, Su

PEAC 1143A Judo: 1 semester hour.

Principles and philosophies of judo, including the techniques of grappling, throwing, and falling. Varying practice methods. Open to all skill levels. F, S

PEAC 1143B Intermediate Judo: 1 semester hour.

A continuation of fundamental judo skills and philosophies for intermediate-skilled students, including basics of some advanced skills. F, S

PEAC 1143C Advanced Judo: 1 semester hour.

A refinement of fundamental judo skills and philosophies for advanced-skilled students, including advanced techniques of throwing, grappling, and falling. F, S

PEAC 1143D Self Defense Judo: 1 semester hour.

Applications of self-defense within the framework of Judo. Open to all skills levels. F, S

PEAC 1144 Tae Kwon Do: 1 semester hour.

Presentation of principles and philosophies of Tae Kwon Do, a Korean form of karate meant for energy conservation in self-defense technique. F, S

PEAC 1145 Rodeo: 1 semester hour.

An orientation to the safety and techniques of the various events of the modern-day rodeo. F, S

PEAC 1146 Archery: 1 semester hour.

Introduction to equipment, technique, and safety practices of archery. D

PEAC 1146B Archery-Bowhunter Education: 1 semester hour.

Technique, strategy, safety and equipment in the sport of Bowhunter Archery. Bowhunter Education Certification optional at course end. F, S

PEAC 1146C Hunters Education Certification: 1 semester hour.

Idaho Fish and Game-approved course to teach hunters to become: Safe, responsible, knowledgeable and involved in hunting and conservation organizations. Hunter Education Certification optional at course end. F, S, Su

PEAC 1147A Beginning Karate: 1 semester hour.

Principles and philosophies of a modified Shorin Ryu Karate Do directed towards beginning martial artists. F, S

PEAC 1148A Beginning Womens Judo: 1 semester hour.

Introduction to methods and techniques of judo for women. Includes a variety of holding and throwing techniques. Rules, safety considerations, and the philosophy of judo are emphasized. D

PEAC 1149A Tai Chi: 1 semester hour.

This course is designed to facilitate fitness through the practice in the Yang-style short form of Tai Chi Chuan. D

PEAC 1149B Intermediate Tai Chi: 1 semester hour.

This course is designed to further skill competency and fitness through practice in the Yang-style short form of Tai Chi Chuan. PREREQ: PEAC 1149A or equivalent skill and ability. D

PEAC 1150A Beginning Racquetball: 1 semester hour.

Introduction to fundamentals of technique, strategy, and safety in the game of racquetball. F, S

PEAC 1150B Intermediate Racquetball: 1 semester hour.

Continuation of basic skills and fundamental strategies for the intermediate level racquetball player. F, S

PEAC 1150C Advanced Racquetball: 1 semester hour.

Refinement of skills, techniques, and strategies for the advanced level racquetball player. D

PEAC 1151A Beginning Tennis: 1 semester hour.

Rudimentary principles and techniques of tennis, including basic shot selection, conditioning, drill works, and game play. F, S, Su

PEAC 1151B Intermediate Tennis: 1 semester hour.

A continuation of fundamental tennis skills and principles for intermediate-skilled students, including an introduction to some advanced skills. F, S

PEAC 1151C Advanced Tennis: 1 semester hour.

Refinement of skills, techniques, and strategies for the advanced level player. D

PEAC 1152A Beginning Badminton: 1 semester hour.

Introduction to basic skills, game play, and strategies in the game of badminton. D

PEAC 1152B Intermediate Badminton: 1 semester hour.

Continuation of skill refinement, more advanced game play, and strategies for the intermediate player. D

PEAC 1152C Advanced Badminton: 1 semester hour.

Refinement of fundamental skills, more advanced game play, and strategies for the advanced player. D

PEAC 1153 Racquet Sports: 1 semester hour.

Introduction to and instruction in fundamental skills for a variety of court sports, specifically tennis, racquetball and badminton. D

PEAC 1154 Table Tennis: 1 semester hour.

Introduction to the basic fundamentals of the game of table tennis. Includes fundamental individual and doubles techniques, strategies, and play. D

PEAC 1155A Beginning Soccer: 1 semester hour.

Introduction to basic individual and team soccer skills, including dribbling, shooting, and offensive and defensive techniques and strategies. S

PEAC 1155B Intermediate Soccer: 1 semester hour.

Continuation of fundamental team and individual skill acquisition, and introduction of more advanced techniques and strategies. D

PEAC 1156A Beginning Basketball: 1 semester hour.

Fundamental individual and team techniques, strategies, and play. F, S

PEAC 1156B Intermediate Basketball: 1 semester hour.

More advanced individual and team techniques, strategies and play for intermediate level players. F, S

PEAC 1157A Beginning Volleyball: 1 semester hour.

Introduction to fundamental individual and team skills, strategies, and play for beginning level volleyball players. S

PEAC 1157B Intermediate Volleyball: 1 semester hour.

More advanced individual and team skills, strategies, and play for intermediate level volley ball players. S

PEAC 1158 Softball: 1 semester hour.

Introduction to fundamental skills, and refinement of more advanced skills, for individual and team techniques, strategies, and play in softball. F, S

PEAC 1159 Ultimate Frisbee: 1 semester hour.

This course is designed to enhance student skills and abilities in ultimate frisbee. D

PEAC 1160A Beginning Skiing: 1 semester hour.

Fundamental techniques, etiquette, training, safety practices and skill practice in downhill skiing for beginners. S

PEAC 1160B Intermediate Skiing: 1 semester hour.

For intermediate level skiers, an emphasis on safety practices, etiquette, more advanced techniques, training, and skill practice. S

PEAC 1160C Advanced Skiing: 1 semester hour.

Intended for advanced skiers, this course emphasizes high-level skill acquisition, training, safety, ski etiquette, and skill practice. S

PEAC 1161A Beginning Night Skiing: 1 semester hour.

Skill acquisition and safety practices for beginners who wish to ski at night. S

PEAC 1162A Beginning Snowboarding: 1 semester hour.

Introduction to snowboarding, including selection of equipment, safety practices, etiquette, and techniques. S

PEAC 1162B Intermediate Snowboarding: 1 semester hour.

Designed for the experienced snowboarder. A continuation of the basic skills and techniques included in the beginning course. S

PEAC 1162C Advanced Snowboarding: 1 semester hour.

Designed for the advanced snowboarder. A continuation of the intermediate skills and techniques included in the intermediate course. F, S

PEAC 1163 Backpacking: 1 semester hour.

Designed for the beginning to advanced backpacker, this course prepares the students for and includes a week long backpacking trip. Includes discussions on navigation, equipment, low impact techniques and food preparation. F, S

PEAC 1164A Beginning Ice Skating: 1 semester hour.

The ice skating course is designed for full participation on ice. Proper techniques are taught for various levels of figure and hockey skaters. S

PEAC 1165 Backcountry GPS Navigation: 1 semester hour.

The practical use of portable GPS devices for outdoor applications. Topics covered include angular and rectangular coordinates, cross-country land navigation, use of waypoint coordinates, determining distance, and limitations of GPS. F

PEAC 1166 Canoeing: 1 semester hour.

A basic level course, teaching both American Red Cross and Native American canoeing styles, and covering paddling techniques, canoe design, equipment, clothing, camping, safety and rescue. S

PEAC 1167 Kayak Touring: 1 semester hour.

Basic skills for lake, ocean and flat-water kayaking including equipment, technique, navigation, safety and rescue. F

PEAC 1168 Day Hiking: 1 semester hour.

Skills necessary to be successful in outdoor hiking situations. Learn to plan, prepare and execute a day hiking adventure by focusing on equipment, skills and physical preparation. D

PEAC 1169 Touch Rugby: 1 semester hour.

Introduction to the participation in the fundamental techniques, strategies, training systems and safety of touch rugby. D

PEAC 1170A Beginning Swimming: 1 semester hour.

Introduction to propulsive movement skills in the water; includes safety, front crawl, and elementary backstroke. F, S

PEAC 1170B Intermediate Swimming: 1 semester hour.

Refinement of beginning skills; includes an introduction to breaststroke, intermediate level safety, basic diving technique, back crawl, and sidestroke. F, S

PEAC 1170C Advanced Swimming: 1 semester hour.

Refinement of previous strokes; includes introduction to butterfly, inverted breaststroke, the trudgen, and overarm sidestroke. D

PEAC 1171 Synchronized Swimming: 1 semester hour.

An orientation to the fundamentals of the Olympic sport of individual and team synchronized swimming, including tricks, presentation, and basic to advanced skills. D

PEAC 1172 SCUBA Diving: 1 semester hour.

Basic skills in SCUBA diving: mask, fins, snorkel use; safety techniques; mechanical equipment use; aquatic environments. Students must: swim 400 yards; tread water 15 minutes; carry ten pound brick 25 yards. No certification. F, S

PEAC 1173 Skin and SCUBA Diving Certification: 2 semester hours.

Skills in SCUBA: mask, fins, and snorkel use; safety techniques; mechanical equipment use; aquatic environments. Candidates must: swim 400 yards; tread water 15 minutes; carry ten pound brick 25 yards. Certification possible. F, S, Su

PEAC 1174 Advanced Open Water SCUBA Diving: 2 semester hours.

Course builds upon basic skills learned in beginning scuba diving. Student must have open water certification. Teaches the four specialties of photography, equipment, navigation and search/recovery. Requires eight dives during two open water diving days. Candidate will receive certification after completion of course requirements. PREREQ: Open water certification. D

PEAC 1175A Beginning Kayaking: 1 semester hour.

Uses controlled environment of ISU pool and includes basic skills including draw and sculling strokes, high and low bracing, eddy turns, deep water rescue techniques, river safety, and Eskimo roll. F, S

PEAC 1176A Beginning Rock Climbing: 1 semester hour.

Designed for students with little or no climbing experience, this outdoor class covers basic climbing including knot tying, belaying, movement techniques, top rope anchor systems, and safety procedures. F, S

PEAC 1176B Intermediate Rock Climbing: 1 semester hour.

Designed for the intermediate level student, this course explores more advanced techniques, etiquette, and minimal impact techniques. F, S

PEAC 1177A Beginning Cross-Country Skiing: 1 semester hour.

Designed for beginning skiers, this course introduces students to flat surface techniques and progresses to uphill and downhill techniques. Indoor lectures are combined with tours to local cross-country ski areas. S

PEAC 1177B Intermediate Cross-Country Skiing: 1 semester hour.

Designed for intermediate skill x-country skiers, this course builds on the fundamental techniques of the beginning course. Includes safety in the backcountry, more advanced uphill and downhill techniques, and overnight trip planning. S

PEAC 1178A Beginning Telemark Cross-Country Skiing: 1 semester hour.

Fundamental skills of executing downhill turns on cross-country skis. Telemark is primary emphasis, but wedge, stem christie, and parallel turns are also covered in relation to free heel skis. S

PEAC 1178B Intermediate Telemark Cross-Country Skiing: 1 semester hour.

Course builds upon the basic skills first introduced in the beginning course. Introduces additional techniques. S

PEAC 1179 Diver Stress and Rescue: 2 semester hours.

Introduction to fundamentals and techniques to understand diver stress, reasons for occurrence, methods of detection, methods of prevention, methods of treatment at occurrence. Candidate will receive certification after completion of course requirements. D

PEAC 1180A Beginning Windsurfing: 1 semester hour.

Introduction to the basic skills of sailboarding including sail rigging, sailing maneuvers, wind reading and windsurfing safety. F, S

PEAC 1180B Intermediate Windsurfing: 1 semester hour.

Continuation of basic skills of sailboarding, with additional emphasis on more advanced technique and weather reading for the intermediate level windsurfer. F, S

PEAC 1181 Mountain Biking: 1 semester hour.

Includes both mountain and road biking. Combines a series of indoor lectures with practical outdoor riding experience. Topics include riding techniques, clothing, equipment, safety and bike maintenance. F

PEAC 1182A Beginning Dutch Oven Cooking: 1 semester hour.

Includes basic food preparation, meal planning and the care and use of cast iron dutch ovens. Nightly demonstrations by guest chefs. Candidates will select recipes, buy food, and prepare their own meals. F, S

PEAC 1182C Advanced Dutch Oven Cooking: 1 semester hour.

Expands upon the basics taught in the beginning course. Includes large group meal planning, dutch oven catering, garnishing and presentation of meals, gourmet meal preparation, and competitive cooking. F

PEAC 1185 Basic Mountaineering: 1 semester hour.

Designed for candidates wishing to climb mountains on a non-technical basis. Includes ice axe use, rope team travel, clothing, equipment, hazards, hypothermia, and acute mountain sickness. S

PEAC 1186A Beginning Fly Fishing: 1 semester hour.

Equipment selection, basic techniques of flycasting, basic knots and types of flies are included. Dry fly fishing, nymphing, and streamer fishing included. D

PEAC 1186B Intermediate Fly Fishing: 1 semester hour.

Specialized casting techniques for different conditions included. Selecting and using the proper fly as well as how to read a stream and locate fish will be addressed. Emphasis will be on fishing still waters, small streams and big rivers. D

PEAC 1186C Advanced Flyfishing Skills: 1 semester hour.

Advanced level specialized techniques including casting, fly selection and use, fish behavior, stream, still water and big water fishing, advanced equipment use, and advanced equipment construction. PREREQ: PEAC 1186B or permission of instructor. F, S

PEAC 1186D Advanced Flyfishing River and Still Water: 1 semester hour.

Equipment selection, advanced techniques of fly-casting, knots and types of flies. River and still water techniques, including dry fly-fishing, nymphing and streamer fishing. F, S

PEAC 1186E Advanced Flyfishing Fly Rod Building: 1 semester hour.

Equipment selection, basic techniques of rod building, basic wrapping and types of blanks. Students will wrap their own rods and apply resin. F, S

PEAC 1187A Beginning Fly Tying: 1 semester hour.

Basic fly tying skills for the beginner. Introduction and explanation of basic tools and materials. Course will include simple nymph, wet and dry fly patterns. D

PEAC 1187B Intermediate Fly Tying: 1 semester hour.

Intermediate level course for the experienced fly-tyer. Advanced patterns included with additional emphasis on innovative materials and techniques. Basic entomology will also be addressed. PREREQ: PEAC 1187A or permission of instructor. D

PEAC 1189 Beginning Gym Climbing: 1 semester hour.

Taught entirely indoors on the Idaho State University Climbing Wall, this course covers climbing knots, belaying procedures, basic equipment, movement techniques, and safety. S

PEAC 1190 Varsity Athletics Bengal Dance Team and Cheerleading: 1 semester hour.

Instruction and participation in ISU Department of Athletics approved sports. Coach's approval required. F, S

PEAC 1191A Basic Horsemanship: 1 semester hour.

Introduces the candidate to horsemanship, safety and riding skills. Includes horse behavior, safety, grooming, tack care, tacking horse, nutrition, fitness, basic skills for the horse and rider. Skills include guiding, posting at a trot, correct leads, flying lead changes, obtaining balanced stops, roll maneuvers and techniques to work the problem horse. F, S

PEAC 1191B Intermediate Horsemanship: 1 semester hour.

Build upon basic skills learned in beginning horsemanship. Intermediate skills include guiding, posting at a trot, correct leads, flying lead changes, stops, roll maneuvers and techniques to work the problem horse. PREREQ: PEAC 1191A or permission of instructor. D

PEAC 1193 Leave No Trace Workshop: 1 semester hour.

Participants will gain a better understanding of LNT practices and outdoor ethics, developing confidence in teaching others about LNT. Through activities, outdoor overnight experience, and discussions, students will look at their own outdoor ethics and be challenged to better develop their skills and practices to lessen their impact on the land. D

PEAC 1194 Caving Workshop: 1 semester hour.

Designed for candidates that want to develop the skills necessary to explore non technical caves. The course covers navigation, equipment, rappelling, light sources, emergency preparation, and the history of caving. S

PEAC 1195A Beginning Disc Golf: 1 semester hour.

Introduction to the sport of Disc Golf. The class covers basic throwing techniques, putting styles and mental preparation for competitive play. F

PEAC 1196 Skateboarding: 1 semester hour.

Introduction to the fundamentals, technique, and overall knowledge of skateboarding. F, S

PEAC 1197 Handball: 1 semester hour.

Introduction to the fundamentals of technique, strategy, and safety in the game of handball. D

PEAC 1198A Team Sports Inline Roller Hockey: 1 semester hour.

Fundamentals of inline hockey, including game rules, safe practices, skating, stick handling, passing, shooting, goaltending, offensive and defensive play, and officiating. D

PEAC 1198B Team Sports Lacrosse: 1 semester hour.

Fundamentals of Lacrosse including: game rules, equipment, safe practices, cradling, passing, catching, scooping, and scrimmaging. D

PEAC 1198C Team Sports Flag Football: 1 semester hour.

Fundamentals of flag football including game rules, equipment, safe practices, passing, catching, offensive and defensive play, and scrimmaging. F

PEAC 1199 Experimental Course: 1-6 semester hours.**PEAC 2299 Experimental Course: 1-6 semester hours.**

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Physical Therapist Assistant (PTA)

Courses

PTA 0104 Introduction to Kinesiology: 3 semester hours.

Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. Equivalent to MSTH 0104. PREREQ: Admission to the MSTH or PTA program. F

PTA 0105 Introduction to Physical Therapy: 1 semester hour.

Roles and responsibilities of physical therapists and physical therapist assistants will be explored, as well as the history of physical therapy. Includes patient care, legal issues, principles of physical therapy treatment, education requirements, and functions of the American Physical Therapy Association (APTA). Local physical therapy facilities visited. PRE-or-COREQ: PTA 0104 or permission of instructor. F

PTA 0106 Applied Kinesiology: 3 semester hours.

Studies the human anatomy with an emphasis on the musculoskeletal system, identification of structures and relationship to function, normal and abnormal biomechanical principles of joint motion and gait patterns. PREREQ: PTA 0104, PTA 0105, BIOL 1101, BIOL 1101L, BIOL 3301, and BIOL 3301L. S

PTA 0107 Procedures I: 5 semester hours.

Procedures related to physical therapy treatment, including universal precautions, principles of physics, anatomy, kinesiology, thermal agents, ultrasound, vital signs and their use in therapeutics, transfer training, ROM, ultrasound, wheelchair, and wound management. PREREQ: Second year student in good standing, and PTA 0105. S

PTA 0201 Procedures II: 5 semester hours.

A continuation of PTA 0107, Procedures I, including electrical stimulation theory and techniques for applying variations of electrical current, biofeedback, and other modalities. Students will also learn therapeutic management of prosthetics and orthotics. PREREQ: Second-year student in good standing, and PTA 0104, PTA 0105, PTA 0106, PTA 0107, and PTA 0213. F

PTA 0202 Physical Therapy Assessment: 4 semester hours.

Observation skills, tests and measurements in physical therapy including manual muscle testing, goniometry, vital signs, gait, pain, posture and functional assessment as related to patient progress. PREREQ: Second-year student in good standing, and PTA 0104, PTA 0105, PTA 0106, PTA 0107, and PTA 0213. F

PTA 0203 Therapeutic Exercise: 5 semester hours.

Therapeutic exercise principles and practices related to patient treatment. Includes stretching, proprioceptive neuromuscular facilitation, other rehab techniques like NDT, Rood, Brunnstrum, cardiopulmonary rehab, and exercise equipment. PREREQ: Second year student in good standing, and HO 0208, PTA 0201, and PTA 0202. S

PTA 0204 Seminar: 3 semester hours.

Current practices and issues in physical therapy. Includes clinical problem solving, ethics, legal aspects, reimbursement, case management, research, and employment issues. PREREQ: Second year student in good standing, and PTA 0201 and PTA 0202. S

PTA 0213 Clinical Affiliation I: 7 semester hours.

Clinical instructor supervised, eight-week clinical experience starting in the summer (May) after the first year. Experience will focus on initiating and developing beginning Physical Therapist Assistant skills in the treatment setting. PREREQ: Second year student in good standing, and PTA 0104, PTA 0105, PTA 0106, and PTA 0107. Su

PTA 0214 Clinical Affiliation II: 7 semester hours.

Clinical instructor supervised, eight-week clinical experience starting in March of the second year. Experience will focus on performing Physical Therapist Assistant skills at a professional level in preparation for entering the workforce. PREREQ: Second year student in good standing, PTA 0201, PTA 0202, and PTA 0213. PRE-OR-COREQ: PTA 0203 and PTA 0204. S

PTA 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PTA 0298 Special Topics: 1-8 semester hours.

This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program's full-time pre-employment curriculum. PREREQ: Permission of instructor.

Physical/Occupational Therapy (PTOT)

Courses

PTOT 2209 Introduction to Occupational Therapy: 1 semester hour.

Exploration of the diversity of occupational therapy and how occupation or "activity" can be used as an intervention for promoting health and independence in persons with physical, emotional, and developmental disabilities. S

PTOT 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PTOT 4401 Clinical Kinesiology and Biomechanics: 4 semester hours.

Analysis of normal and pathological human movement in joints, posture, gait, and the vertebral column. Application of movements to therapeutic interventions is emphasized. PREREQ: BIOL 4474. S

PTOT 4402 Clinical Neuroscience: 5 semester hours.

Study of structure and function of the human nervous system or the cellular and systemic levels. Specific application to clinical management of neurological problems and pathology. PREREQ: BIOL 4474 and BIOL 4486. S

PTOT 4412 Professional Communication: 2 semester hours.

Introduction to standard forms of professional communication in physical and occupational therapy and among other health care professions. Medical record-keeping and interdisciplinary communication are emphasized. F

PTOT 4413 Occupational Therapy Profession: 3 semester hours.

Historical overview of occupational therapy in health care, education and psychosocial settings. Occupational therapy process, rural human service delivery system, professionalism, ethics, and legal issues will be examined. F

PTOT 4421 Self-Exploration in Occupation: 3 semester hours.

Focus on self-exploration in occupation and purposeful activity. Self-evaluation in occupational performance areas, components, and context. The student will complete a self-development plan in occupation. Su

PTOT 4422 Occupational Performance: 3 semester hours.

Person/occupation/environment interactions are examined from the perspective of multiple theories and models that analyze typical occupations and address performance dysfunctions. PREREQ: PTOT 4413 and PTOT 4421. COREQ: PTOT 4442. S

PTOT 4442 Occupational Performance Laboratory: 1 semester hour.

Introduction to and practice using occupation focused evaluation tools and methodologies used in analyzing, evaluating, and categorizing occupational performance. COREQ: PTOT 4422. S

PTOT 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Physician Assistant (PAS)

Courses

PAS 4489 Independent Problems in Physician Assistant Studies: 1-3 semester hours.

Explores the field of Physician Assistant through experiential learning predominantly by participating in research with PA program faculty. May be repeated for up to 3 credits. PREREQ: Instructor Permission Required.

Physics (PHYS)

Courses

PHYS 1100 Essentials of Physics: 4 semester hours.

A survey of basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Includes lecture, demonstrations and elementary problem solving. COREQ: MATH 1108 or equivalent. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 1101 Elements of Physics: 3 semester hours.

A survey of basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Includes lecture, demonstrations, elementary problem solving. PREREQ: Permission of the College of Technology. COREQ: MATH 1108 or equivalent; PHYS 1101L. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 1101L Elements of Physics Laboratory: 1 semester hour.

Laboratory-based application of PHYS 1101, to demonstrate basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. PREREQ: Permission of the College of Technology. PRE-or-COREQ: MATH 1108 or equivalent; PHYS 1101. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 1103 Tools for Scientists I: 1 semester hour.

Personal computer, Internet and WWW, and HP graphics calculator applications in the sciences. Familiarizes students with the capabilities of these computing tools. Emphasizes problems frequently encountered in science and engineering courses. D

PHYS 1111 General Physics I: 3 semester hours.

Introductory physics course for students in scientific and technical fields, particularly the biological sciences; mechanics, wave motion, thermodynamics. PREREQ: MATH 1143 or MATH 1147 or equivalent. Partially satisfies Objective 5 of the General Education Requirements. F

PHYS 1112 General Physics II: 3 semester hours.

Introduction to optics, electricity and magnetism and selected topics from atomic and nuclear physics. PREREQ: PHYS 1111 or equivalent, and MATH 1143 or MATH 1147 or equivalent. Partially satisfies Objective 5 of the General Education Requirements. S

PHYS 1113 General Physics I Laboratory: 1 semester hour.

Demonstrating principles of physics. PRE-or-COREQ: PHYS 1111. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 1114 General Physics II Laboratory: 1 semester hour.

Demonstrating principles of physics. PREREQ: PHYS 1113. PRE-or-COREQ: PHYS 1112. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 1152 Descriptive Astronomy: 3 semester hours.

Survey of the historical and modern observation of the sky. Physical relationships in the solar system; planets, satellites, comets, etc., and theories of the creation of the universe and life in the universe. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

PHYS 1153 Descriptive Astronomy Laboratory: 1 semester hour.

Use of astronomical equipment, telescopes, cameras, etc. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

PHYS 2211 Engineering Physics I: 4 semester hours.

Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. COREQ: MATH 1175. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 2212 Engineering Physics II: 4 semester hours.

Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. PREREQ: PHYS 2211. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 2213 Engineering Physics I Laboratory: 1 semester hour.

Principles and methods of physical measurement. PRE-or-COREQ: PHYS 2211. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 2214 Engineering Physics II Laboratory: 1 semester hour.

Principles and methods of physical measurement. PRE-or-COREQ: PHYS 2212. PREREQ: PHYS 2213. Partially satisfies Objective 5 of the General Education Requirements. F, S

PHYS 2215 Thermal Physics: 1 semester hour.

Introduction to thermodynamics and kinetic theory. Designed for students who have taken AP Physics C in high school and have not had instruction in thermal physics normally covered in Engineering Physics I and II. COREQ: MATH 1175. D

PHYS 3301 Modern Physics: 3 semester hours.

A one-semester course surveying 20th century physics including elements of special relativity and quantum mechanics as applied to atoms. A continuation of the Engineering Physics sequence. PREREQ: PHYS 2212. COREQ: MATH 3360. F

PHYS 3312 Introduction to Biophysics: 4 semester hours.

Survey course designed for pre-medical, pharmacy, biology, and physical science students covering topics such as the physics of sensory systems, electromagnetic radiations, and physical measurement techniques applied to biological problems. PREREQ: CHEM 1112, CHEM 1112L, MATH 1160 or MATH 1170. D

PHYS 3313 Intermediate Laboratory I: 2 semester hours.

Modern and historical experiments in atomic physics, nuclear physics, and optics. COREQ: PHYS 3301 and MATH 3360. F

PHYS 4400 Practicum in Physical Science: 2 semester hours.

Emphasizes design, set-up, equipment, operation, and administration of physics teaching laboratories, demonstrations and activities. Introduces pre-designed experiments plus the design and maintenance of lab equipment. Ideal for Education majors. PREREQ: Permission of instructor. S

PHYS 4403 Advanced Modern Physics I: 3 semester hours.

Study of the elementary principles of quantum mechanics and an introduction to atomic, solid state and nuclear physics. Quantum mechanics will be used as much as possible. PREREQ: MATH 3360 or equivalent, and PHYS 3301. S

PHYS 4404 Advanced Modern Physics II: 3 semester hours.

Study of the elementary principles of quantum mechanics and an introduction to atomic, solid state and nuclear physics. Quantum mechanics will be used as much as possible. PREREQ: PHYS 4403. F

PHYS 4405 Advanced Physics Laboratory I: 2 semester hours.

Experiments in radiation detection and measurement, nuclear spectroscopy including x-ray and gamma spectroscopies, neutron activation and ion beam methods. Available to Geology, Engineering, Health Physics, and Physics majors. PREREQ: Permission of the instructor. D

PHYS 4406 Advanced Physics Laboratory II: 2 semester hours.

Senior projects providing a capstone to the physics major curriculum. Written and oral presentation of the project procedures and results are required. F, S

PHYS 4408 Error Analysis for the Physical Sciences: 3 semester hours.

Lecture course with computation requirements. Topics include: Error propagation, Probability Distributions, Least Squares fit, multiple regression, goodness of fit, covariance and correlations. PREREQ: MATH 3360. AS

PHYS 4414 Electronic Instrumentation and Measurement: 3 semester hours.

Lecture course with laboratory requirements. Topics include: DC and AC electrical circuits, Analog pulses, Bipolar Transistors, Field Effect Transistors, Operational amplifiers. PREREQ: PHYS 2212, PHYS 2214, and MATH 3360. AS

PHYS 4415 Statistical Physics: 3 semester hours.

Topics covered may include kinetic theory, elementary statistical mechanics, random motion and the theory of noise. Choice of topics will depend upon the interest of the students and instructor. PREREQ: PHYS 2212 and MATH 3360. F

PHYS 4416 Radiation Detection and Measurement: 3 semester hours.

Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1112, CHEM 1112L, and PHYS 1111 and PHYS 1113 or PHYS 2211 and PHYS 2213. S

PHYS 4416L Radiation Detection and Measurement Lab: 0 semester hours.**PHYS 4421 Electricity and Magnetism I: 3 semester hours.**

Intermediate course in fundamental principles of electrical and magnetic theory. Free use will be made of vector analysis and differential equations. PREREQ: PHYS 2212 and MATH 3360. F

PHYS 4422 Electricity and Magnetism II: 3 semester hours.

Intermediate course in fundamental principles of electrical and magnetic theory. Free use will be made of vector analysis and differential equations. PREREQ: PHYS 4421. S

PHYS 4425 Nuclear and Particle Physics I: 3 semester hours.

A course in Nuclear and Particle Physics with emphasis upon structural models, radioactivity, nuclear reactions, particle interactions, fission and fusion, the standard model of particle physics, symmetries and conservation laws. PREREQ: Knowledge of elementary quantum mechanics and differential equations or permission of instructor. F

PHYS 4426 Nuclear and Particle Physics II: 3 semester hours.

A course in Nuclear and Particle Physics with emphasis upon structural models, radioactivity, nuclear reactions, particle interactions, fission and fusion, the standard model of particle physics, symmetries and conservation laws. PREREQ: PHYS 4425. S

PHYS 4430 Accelerator Physics: 3 semester hours.

The physics of direct voltage accelerators, betatrons, synchrotrons, linear induction acceleration; high current accelerators; electromagnetic particle optics, free electron lasers, and synchrotron light sources. PREREQ: PHYS 4422 or permission of instructor. D

PHYS 4442 Solid State Physics: 3 semester hours.

Introduction to the field of solid state physics emphasizing the fundamental concepts. Topics usually covered are crystal structure, x-ray diffraction, crystal binding energies, free electron theory of solids, energy bands. PREREQ: PHYS 3301 and MATH 3360 or permission of instructor. AF

PHYS 4452 Intermediate Optics: 3 semester hours.

Wave theory, e/m waves, production of light, measurement of light, reflection, refraction, interference, diffraction, polarization, optical systems, matrix methods, Jones vectors, Fourier optics, propagation of e/m waves in materials, atmospheric optics. PREREQ: PHYS 2212. COREQ: MATH 3360. AS

PHYS 4453 Topics in Astrophysics: 2 semester hours.

Applications of upper division physics to astronomy or cosmology. May include lab exercises. PREREQ: Permission of instructor. AS

PHYS 4461 Introduction to Mathematical Physics I: 3 semester hours.

Introduction to the mathematics most commonly used in physics with applications to and practice in solving physical problems; includes vector analysis, ordinary and partial differential equations. PREREQ: PHYS 2212 and MATH 3360. F

PHYS 4462 Introduction to Mathematical Physics II: 3 semester hours.

Introduction to the mathematics most commonly used in physics with applications to and practice in solving physical problems; includes vector analysis, ordinary and partial differential equations. PREREQ: PHYS 4461. S

PHYS 4470 Simulations of Particle Interactions with Matter: 3 semester hours.

Lecture course with monte-carlo computation requirements. Topics include: Stopping power, interactions of electrons and photons with matter, hadronic interactions, and radiation detection devices. PREREQ: MATH 3360 and PHYS 3301. AF

PHYS 4481 Independent Problems: 1-3 semester hours.

Students are assigned to, or request assignment to, independent problems on the basis of interest. May be repeated to a maximum of 6 credits. F, S

PHYS 4483 Theoretical Mechanics: 4 semester hours.

Detailed study of the motion of particles, satellites, rigid bodies and oscillating systems. Develop and apply Lagrangian and Hamiltonian methods. PREREQ: PHYS 2212 and MATH 3360. F

PHYS 4492 Colloquium in Physics: 1 semester hour.

Faculty and student lectures in current research topics in physics. Open to upper division and graduate students in physics. May be repeated for up to 4 credits. F, S

PHYS 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Plumbing Apprenticeship (PLAP)

Courses**PLAP 0100 Plumbing Internship Year 1: 10 semester hours.**

This course covers the first year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0101 Plumbing Theory Year 1: 3 semester hours.

This course provides theory and instruction in orientation to the plumbing trade, safety, math, hand tools, blueprints, rigging, fittings and piping systems. D

PLAP 0150 Plumbing Internship Year 2: 10 semester hours.

This course covers the second year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0151 Plumbing Theory Year 2: 3 semester hours.

This course provides theory and instruction in drawings, math, installation, joining, connecting, testing, faucets, valves, water heaters and meters, and fixtures. D

PLAP 0200 Plumbing Internship Year 3: 10 semester hours.

This course covers the third year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0201 Plumbing Theory Year 3: 3 semester hours.

This course provides theory and instruction in commercial drawings, plumbing codes, math, vents, sewer and sewage, backflow, handling water (filtering, softening, cleaning, disinfecting, installing, etc.) fixtures, solar heating systems, and natural gas systems. D

PLAP 0250 Plumbing Internship Year 4: 10 semester hours.

This course covers the fourth year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0251 Plumbing Theory Year 4: 3 semester hours.

This course provides theory and instruction in plumbing theory, drainage, vents, waste, water supplies, swimming pools, hot tubs, compressed air piping systems, medical gas systems, mobile homes, and private waste disposal and water supply systems. D

Political Sci (POLS)

Courses**POLS 1101 American National Government: 3 semester hours.**

This class examines the United States political system covering not only the Constitutional basis, structure, and organization of the national government but also the interactions of individual citizens and organized groups in civil society with the institutions of government. Required for all students majoring in political science. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su (Contingent on Summer Session demand)

POLS 2202 Introduction to Politics Critical Thinking and Analysis: 3 semester hours.

Introduction to critical thinking about politics. Students learn to comprehend and critically analyze discourse and writings on political and social issues, to identify errors in the logical or presentation of facts in political discourse, to be able to demonstrate independent political judgment by formulating logically valid and factually sound arguments. Required for all students majoring in political science. Satisfies Objective 7 of the General Education Requirements. F, S, Su (Contingent on Summer Session demand)

POLS 2221 Introduction to International Relations: 3 semester hours.

Conceptual introduction to international relations, with emphasis on sovereignty, national interest, power, and balance of power. F, S

POLS 2222 Public Administration in the Islamic World: 3 semester hours.

This course intends to provide a historical and contemporary view of the conception of government in the Muslim world. There are textual (Islamic), cultural (Arab, Persian, Turkish, Indian, Malay, Caucasian, African, etc.) and historical origins for Muslim governance throughout the ages. This course will start with the city-state of Medina under the Prophet Muhammad and expand outward to the early Arab/Persian caliphates to the Turkish caliphate. Sultanates in the regions of India and South-East Asia as well as the kingdoms in Africa and the Khanates of Russia and Central Asia will be considered within this sphere up until the modern age. The progression of the concept of government in the Muslim world from city-state, to empire to nation-state will be considered in this course. The conceptions of leadership, public finance, the rule of law, the military and democracy will be examined throughout the course. D

POLS 2248 Politics and the Administration of Justice: 3 semester hours.

The criminal justice system in the United States will be examined by investigating its component parts: police, court, and correction. In addition, the problem of coordination among these agencies will be explored as will the relationship of the criminal justice network to the larger society. D

POLS 2249 Introduction to Criminal Law: 3 semester hours.

The major categories of criminal liability are studied within the context of American criminal justice. These include crimes against individuals, property, and society. Defenses available to those accused of criminal activity are also discussed. D

POLS 2250 Idaho Politics and Culture: 3 semester hours.

A survey of the political and social culture of Idaho within the context of United States West. D

POLS 3308 State and Local Government: 3 semester hours.

Study of the institutions of state and local government in a behavioral context. D

POLS 3313 Introduction to Political Philosophy: 3 semester hours.

Examination of major thinkers and writing in political philosophy from Plato to NATO. F, S

POLS 3326 Recent US Foreign Policy: 3 semester hours.

Study of recent U.S. foreign policy focused on the interrelationship of domestic and foreign policies and the problems of formulating foreign policy in a democratic state. D

POLS 3331 Comparative Politics Framework for Analysis: 3 semester hours.

Learn through comparison and contrast how nation-states develop distinct identities, different forms of government, and how these shape politics within a nation and relations between nations. F, S, Su (Contingent on Summer Session demand)

POLS 3350 Special Topics in Political Science: 3 semester hours.

Examine and analyze selected topics in politics. May be repeated for up to 6 credits. D

POLS 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

POLS 4401 Political Parties and Groups: 3 semester hours.

The nature and development of political parties and pressure groups. S

POLS 4403 The Presidency: 3 semester hours.

Evolution and development of the office of the President; its major responsibilities in domestic and foreign affairs, with emphasis on particular power problems that confront the President. F

POLS 4404 The Legislative Process: 3 semester hours.

Nature and functions of the U.S. Congress. Topics covered: legislative campaigns, the politics of lawmaking, congressional investigations, and major problems facing the Congress. S, Su

POLS 4405 Democracy and Governance: 3 semester hours.

Critical exploration into theories and practices of governance in the contemporary United States. The class is intended for all students who have interest in the non profit and public sectors. Topics include public service and leadership, civic engagement, and participatory democracy. D

POLS 4406 Intergovernmental Relations: 3 semester hours.

Looks at federalism from a historical perspective with a focus on the institutions developed in the United States. The role of the federal government will be considered alongside the role of the states as it was initially conceptualized and how it is practiced today. The role of local governments in relation to the states is also considered. D

POLS 4408 Urban Spaces: 3 semester hours.

Interdisciplinary survey course of urban studies. Intended for students who have interest in local and urban politics, public art, social movements, sustainability, development, and social and democratic theory. D

POLS 4409 Community Planning: 3 semester hours.

The course engages the class in discussion on planning topics ranging from the theoretical level to specific issues in planning. The course provides a firm understanding of contemporary thinking on planning issues so that current or future professional planners and academics can engage with the issues facing their community in a proactive and productive way. D

POLS 4411 American Political Theory: 3 semester hours.

Political ideas in the United States from Colonial and Revolutionary times through the controversies of the Civil War to the present. D

POLS 4412 Modern Political Analysis: 3 semester hours.

Methods of political inquiry and theories and doctrines of politics, with emphasis on modern developments. D

POLS 4418 Topics in Political Theory: 3 semester hours.

This course requires examination, analysis and investigation of selected texts and topics in political philosophy. May be repeated for up to 6 credits. D

POLS 4419 Political Research Methods: 3 semester hours.

This class investigates the theory and application of various research methods and statistical techniques common to the social sciences, with particular reference to their use in political inquiry. COREQ: POLS 4419L. D

POLS 4419L Political Research Methods Laboratory: 1 semester hour.

Application of, and practice in research methods. COREQ: POLS 4419. D

POLS 4420 Contemporary Political Theory: 3 semester hours.

Recent political philosophies and theories ranging from democratic, Marxist, and existentialist thought to Critical Theory and post-modernism. D

POLS 4421 Democratic Political Thoughts: 3 semester hours.

Historical and contemporary models of democracy as well as contemporary debates in democratic thought. Democracy is treated as a contested idea. D

POLS 4425 Topics in International Politics: 3 semester hours.

This course requires examination, analysis and evaluation of selected topics in international politics. May be repeated for a maximum of 6 credits. D

POLS 4427 Voting and Public Opinion: 3 semester hours.

Analysis of the way citizens and government communicate with each other. Elections, public opinion, and media influence are studied. F

POLS 4428 Women and Politics: 3 semester hours.

The objective of this course is to familiarize students with a broad range of issues involving gender and politics in the U.S. and around the world including the history of women's movements, the political participation of women, voting behavior of women and men, the political divisions that exist among women, women's roles in society, and a variety of "women's issues." Because women's involvement in the political arena is informed by their roles and status in society at large, we will also discuss such topics as inequality, power, discrimination, social norms and employment practices. D

POLS 4432 Comparative Politics Change and Political Order: 3 semester hours.

An examination of political change, political order, political culture and the role of revolutionary violence. Change and order in the context of globalization is emphasized. D

POLS 4433 Politics of Developing Nations: 3 semester hours.

Study of problems in the political analysis of rapidly changing and unstable "developing" nation states with an emphasis on problems of political, economic, and social development. D

POLS 4434 Terrorism and Political Violence: 3 semester hours.

A survey of forms of domestic and transnational terrorism, other forms of political violence, and problems of counter-terrorism. D

POLS 4435 Topics in National and Regional Studies: 3 semester hours.

Surveys the political, economic, and social issues of a nation or region. May be repeated for up to 6 credits with different content. D

POLS 4436 Elite Deviance and Crime: 3 semester hours.

Explores the types of criminal behaviors engaged in by the American socioeconomic and corporate elite. The course first explores and identifies who this elite is and then examines their ideological and economic history in American society. Specific examples of elite and corporate crime are presented and discussed in class. Equivalent to SOC 4436 and SOWK 4436. F

POLS 4441 Administrative Law: 3 semester hours.

Introductory survey of the legal principles defining governmental administrative processes. Topics include judicial review, tort liability of governments and offices, rules and rule-making, due process, and the limits of administrative discretion. D

POLS 4442 Constitutional Law: 3 semester hours.

Explores the way in which the three branches interact with each other and the state governments through the lens of Supreme Court decisions. While historical cases are examined, special emphasis is put on contemporary Court decisions. F

POLS 4443 Civil Rights and Liberties: 3 semester hours.

Explores the provision of civil rights and liberties, including First Amendment freedoms and criminal rights, through the lens of Supreme Court decisions. While historical cases are examined, special emphasis is put on contemporary Court decisions. S

POLS 4444 Law and Society: 3 semester hours.

This class explores the people, politics, and social institutions which shape both law and society. Emphasis is placed on current political and social movements. D

POLS 4445 Jurisprudence: 3 semester hours.

Nature, source, and theories of law; the role of law in modern society; and the application of legal philosophy to the political system. D

POLS 4450 Special Topics in Law: 3 semester hours.

Examine and analyze selected topics in constitutional law and legal philosophy. Topics may include the constitution and foreign affairs, women and the law, law and literature, and law and film. May be repeated for up to 6 credits. D

POLS 4451 Public Organizational Theory: 3 semester hours.

Introduction to the study of complex organizations and organizational behavior in the administration of public policy. Emphasis on public and non-profit organizations. POLS 4405 recommended. D

POLS 4452 Budgeting and Finance: 3 semester hours.

This course explores the dynamics of the budget process in government as well as detailed issues in budgeting and finance. The main objective is to provide the class with a thorough analysis of budgeting terms, methods and problems. The course covers general issues in budgeting, revenues for government, economic development, and citizen participation. D

POLS 4453 Public Policy Analysis: 3 semester hours.

Theoretical and practical analyses of public policies, including theories of policy formation and their political implementation through governmental institutions. Case studies will provide the means of analyzing specific policy problems. D

POLS 4454 Public Workplace Issues: 3 semester hours.

Management of public and non-profit employees. Major topics include public employee rights, affirmative action, sexual harassment, disability, the political environment of public and non-profit organizations, and the impact of professionalism, technology, and participatory democracy on the management of public and non-profit employees. D

POLS 4455 Environmental Politics and Policy: 3 semester hours.

Study of the political forces affecting environmental policy and investigation of several specific policies affecting the environment, such as: pollution control, energy production, hazardous chemicals, and the public lands. D

POLS 4456 Labor Organization: 3 semester hours.

Evolution of economic systems and labor's response to changing patterns of production is studied, and a counter perspective to traditional management views of "efficiency" is presented. Emphasis is on governmental employee unions. D

POLS 4457 Grantwriting: 3 semester hours.

Steps involved in the grantwriting process from strategic planning, research, and writing to finding appropriate grant sources. D

POLS 4458 Public Administration Ethics: 3 semester hours.

A course in applied ethics serving to educate students from a theoretical and a practical point of view. The course provides an historical and social perspective of ethics in public administration. D

POLS 4459 Public Service Internship: 1-9 semester hours.

Directed student internship related to public service in non-profits and community organizations, or state and local government. The student will be placed in a supervised position commensurate with their abilities as determined and approved by faculty in the department. Internships should be designed to complement a student's research interest and be directed toward a future project or desired field of employment. May be repeated for a total of 9 credits. Graded S/U. F, S, Su

POLS 4460 Senior Seminar: 3 semester hours.

This seminar is designed to integrate undergraduate academic experience in the major. Students will be required to do research and writing on topics encountered in their undergraduate curriculum. Required of, and open to, senior majors. F, S

POLS 4465 US Political History: 3 semester hours.

Study of the political history of the United States involving a discussion of theories of popular voting behavior, critical elections, and political party systems. Equivalent to HIST 4465. D

POLS 4466 Public Lands Policy: 3 semester hours.

Analysis of the historical and contemporary use and disposition of the federal public lands. The agencies that manage the public lands, major laws, and regulations and the political conflict that surrounds their use and conservation. D

POLS 4467 State and Local Administration: 3 semester hours.

Seminar in the practice and principles of state, municipal, and sub-state management. Emphasis on the evolution of interaction between different branches of sub-national government. D

POLS 4471 Historical Geography of Idaho: 3 semester hours.

Influences of geography and geology on Idaho's economic, political and cultural history. May be team taught and include field trips, discussion sections. Equivalent to GEOL 4471 and HIST 4471. D

POLS 4478 Federal Indian Law: 3 semester hours.

Examination of tribal governments; their relationship with the federal government; sovereignty, jurisdictional conflicts over land and resources; and economic development. Equivalent to ANTH 4478. D

POLS 4479 Tribal Governments: 3 semester hours.

Complex legal position of Indian tribes as self-governing entities; principles of inherent powers; governmental organization, lawmaking, justice, relation to state and federal government. Equivalent to ANTH 4479. D

POLS 4491 Seminar: 1-3 semester hours.

Research, reading, discussion, and the preparation of reports on selected topics. Ordinarily for seniors majoring in political science and having the instructor's consent. May be repeated for a total of 6 credits. F, S, Su

POLS 4492 Seminar: 1-3 semester hours.

Research, reading, discussion, and the preparation of reports on selected topics. Ordinarily for seniors majoring in political science and having the instructor's consent. May be repeated for a total of 6 credits. F, S, Su

POLS 4498P Professional Development Workshop: 3 semester hours.

New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

POLS 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Practical Nursing (PNUR)

Courses

PNUR 0110 Basic Foundations of Nursing: 3 semester hours.

This course will provide the students with the principles of disease transmission, therapeutic communication, patient teaching/learning, medication administration and the nursing process, ensuring the students have understanding and development of the nurse's role and responsibility in the nursing profession and patient care planning process with increasing the students understanding of the communication, documentation, and leadership dynamics: basic clinical skills which provide the foundation for nursing. PREREQ: Admission to PNUR Program. COREQ: PNUR 0110L. F

PNUR 0110L Nursing Lab I: 1 semester hour.

Practical application of the nursing process and basic clinical skills which provide the foundation for nursing practice. COREQ: PNUR 0110. F

PNUR 0112 Medical Surgical Nursing I: 3 semester hours.

This course serves as an introduction to Medical-Surgical Nursing, focusing on concepts, issues, foundational knowledge and nursing care applicable to caring for the ill adult patient. COREQ: PNUR 0110, PNUR 0123 or permission of instructor. F

PNUR 0113 Medication Administration for Practical Nursing: 1 semester hour.

The basics of safe medication administration, including math calculations and proper procedures. The medication examination included in this class must be successfully passed before the student practical nurse administers medication in clinical settings. COREQ: PNUR 0110 or permission of instructor. ASu

PNUR 0114 Clinical Foundations of Nursing I: 3 semester hours.

Through hands on clinical experience in a variety of settings the student nurse learns skills basic to nursing. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0115 Professional Development Seminar: 1 semester hour.

Professional development to increase understanding of the practical nurse's role and responsibilities. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0118 Outreach Clinical Foundations I: 2 semester hours.

Through hands-on clinical experience in a variety of settings the student nurse will be exposed to skills basic to the nursing practice.

PNUR 0121 Clinical Foundations of Nursing II: 4 semester hours.

Application of nursing concepts within increasingly more complex patient care situations including care of the family; includes application of the nursing process as well as drug and IV therapy. PREREQ: PNUR 0110 and PNUR 0123. S

PNUR 0123 Basic Drug Therapy of Nursing I: 2 semester hours.

This course provides an introduction to clinical drug therapy with emphasis on the knowledge and interventions needed to maximize therapeutic effects and to prevent or minimize adverse effects of drugs. COREQ: PNUR 0112 F

PNUR 0125 Family Nursing I: 3 semester hours.

Principles of practical nursing care of the child-bearing woman and newborn. The disorders of childhood and the principles of pediatric nursing care. Principles of normal growth and development of the child are incorporated throughout. PREREQ: PNUR 0110. COREQ: PNUR 0121, PNUR 0127. S

PNUR 0126 Medical Surgical Nursing II: 3 semester hours.

This course serves as a continuation of Medical-Surgical Nursing, focusing on concepts, issues, foundational knowledge and nursing care applicable to caring for the ill adult patient. PREREQ: PNUR 0112. COREQ: PNUR 0121, PNUR 0127, PNUR 0126L. S

PNUR 0126L Nursing Lab II: 1 semester hour.

Practical application of nursing interventions and procedures/skills within the nursing scope of practice. PREREQ or COREQ: PNUR 0112 or PNUR 0126. S

PNUR 0127 Drug Therapy of Nursing II: 2 semester hours.

This course continues the principles of clinical drug therapy with emphasis on the knowledge and interventions needed to maximize therapeutic effects and to prevent or minimize adverse effects of drugs as related to patient care in the nursing practice. Introduces principles of IV therapy. PREREQ: PNUR 0123 COREQ: PNUR 0126. S

PNUR 0131 Clinical Foundations of Nursing III: 3 semester hours.

Theory and principles of nursing care are applied within the clinical setting. PREREQ: PNUR 0121. COREQ: PNUR 0140. Su

PNUR 0133 Intravenous Therapy for the Practical Nurse: 1 semester hour.

Principles and practice of intravenous therapy for the Practical Nurse. Fluid and electrolyte balance, acid-base balance, parenteral solutions, infection control relating to IV therapy, central venous access, intravenous nutritional support, and clinical skills relating to intravenous therapy. PREREQ or COREQ: PNUR 0110 or permission of instructor. COREQ: PNUR 0133L. S

PNUR 0133L Intravenous Therapy Lab for the Practical Nurse: 1 semester hour.

Application of intravenous therapy skills for the practical nurse. COREQ: PNUR 0110 or permission of instructor and PNUR 0133. S

PNUR 0137 Clinical Foundations of Nursing IV: 1 semester hour.

Clinical experience in a variety of settings, including leadership roles within the practical nursing scope of practice. COREQ: PNUR 0140. Su

PNUR 0139 Community-Based Populations I: 1 semester hour.

Nursing care of community-based populations. Practical nursing concepts across the life-span in community-based settings. Apply critical thinking and nursing process strategies within community-based settings. COREQ: PNUR 0131. Su

PNUR 0140 Nursing Leadership I: 1 semester hour.

Theory of first-level management skills for the practical nurse role. This course meets the criteria set forth by the Board of Nursing for the LPN Charge Nurse Role. PREREQ: PNUR 0112 and PNUR 0126. COREQ: PNUR 0131. Su

PNUR 0150 Veteran to Nurse Pharmacology: 1-5 semester hours.

Provides an overview of drugs and their actions as related to patient care within the scope of practical nursing practice. The basics of safe medication administration, including dosage calculations, safe handling of medications, IV therapy and technology related to drug administration. PREREQ: Prior military health care service and admission to the program is required. F, S, Su

PNUR 0151 Veteran to Nurse Nursing Fundamentals: 1-4 semester hours.
Provides the principles of disease transmission, therapeutic communication, patient teaching/learning, medication administration, and the nursing process; theory of basic clinical skills is identified which provide the foundation for practical nursing. Provides the theory for the principles of intravenous therapy for the Practical Nurse. PREREQ: Prior military health care service and admission to the program is required. COREQ: PNUR 0155. F, S, Su

PNUR 0152 Veteran to Nurse Medical Surgical Nursing: 1-7 semester hours.
Provides theoretical principles of disease processes in the care of the ill adult; includes concepts of normal and abnormal aging in the older adult and in community-based settings. Includes theoretical principles of care for patients experiencing mental health disorders. PRE-or-COREQ: PNUR 0151. COREQ: PNUR 0156. F, S, Su

PNUR 0153 Veteran to Nurse Maternal Child Nursing: 1-3 semester hours.
Provides the theoretical principles of practical nursing care of the child-bearing woman and newborn; disorders of childhood and the principles of pediatric nursing care. Principles of normal growth and development of the child are incorporated. PREREQ: PNUR 0151. COREQ: PNUR 0157. F, S, Su

PNUR 0154 Veteran to Nurse Issues in Nursing: 1-3 semester hours.
Provides theoretical knowledge in the roles and responsibilities of the practical nurse including leadership, patient advocacy, professionalism and delegation. Legal and ethical trends are explored. NCLEX-PN exam preparation is included. PREREQ: PNUR 0151. COREQ: PNUR 0158. F, S, Su

PNUR 0155 Veteran to Nurse Fundamental Practicum: 1-3 semester hours.
Provides practical application of the nursing process and basic clinical skills which develops the foundation for nursing practice. Provides practice of intravenous therapy within the practical nursing scope and includes the administration of medications. Course may contain laboratory, virtual, simulation and real-time clinical experiences. PREREQ: PNUR 0150. COREQ: PNUR 0151. F, S, Su

PNUR 0156 Veteran to Nurse Medical Surgical Practicum: 1-4 semester hours.
Provides application of medical-surgical nursing interventions and procedures/skills within the scope of the practical nurse; including care of adult clients with a variety of disease processes and in a variety of settings (mental health, outpatient, inpatient and community health). Course may contain laboratory, virtual, simulation and real-time clinical experiences. PREREQ: PNUR 0155. COREQ: PNUR 0152. F, S, Su

PNUR 0157 Veteran to Nurse Maternal Child Practicum: 1-2 semester hours.
Provides application of obstetrical and pediatric theory and procedures/skills within the scope of the practical nurse; including care of pregnant women, neonates, and pediatric patients (well and ill) in a variety of settings (outpatient, inpatient and community-based settings). Course may contain laboratory, virtual, simulation and real-time clinical experiences. PREREQ: PNUR 0156. COREQ: PNUR 0153. F, S, Su

PNUR 0158 Veteran to Nurse Issues in Nursing Practicum: 1 semester hour.
Provides practical application of the development of leadership and professional skills for the practical nurse. Course may contain laboratory, virtual, simulation and real-time clinical experiences. PREREQ: PNUR 0152. COREQ: PNUR 0154. F, S, Su

PNUR 0198 Special Topics: 1-8 semester hours.
This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program's full-time pre-employment curriculum. PREREQ: Permission of instructor.

PNUR 0199 Experimental Course: 1-6 semester hours.
The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PNUR 0296 Independent Study: 1-8 semester hours.
Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PNUR 0296V Veteran to Nurse Independent Study: 1-8 semester hours.
Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PNUR 0298 Special Topics: 1-8 semester hours.
Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Professional Technical Education (PTE)

Professional Technical Education (PTE) courses are now listed as Career and Technical Education (CTE) courses. Please see CTE (p. 519) for a list of courses.

Psychology (PSYC)

Courses

PSYC 1101 Introduction to Psychology: 3 semester hours.
Introduction to the study of human behavior and mental processes, with emphases on history, theories, research methods and findings, and applications in psychology's major areas of study: biological, cognitive, learning, personality, social processes, developmental, and abnormal. Partially satisfies Objective 6 of the General Education Requirements. F, S

PSYC 2200 Child Abuse: 3 semester hours.
Investigation into the psychological and social factors which contribute to child abuse and neglect, and to their identification, treatment, and prevention. D

PSYC 2201 Careers in Psychology: 1 semester hour.
Provides psychology majors with the information and skills necessary to be successful and to pursue a career in psychology or a related field. F, S

PSYC 2205 Human Sexuality: 3 semester hours.
The psychological, biological, and sociological aspects of human sexuality. Emphasis on gender identity, the human reproductive system, human sexual expressions, and sexual problems in males and females. D

PSYC 2225 Child Development: 3 semester hours.
Study of development from conception through adolescence. Considers typical changes within the biological, cognitive, and socioemotional domains and the influence of contexts (e.g., family, peers, school, culture) within each area. F, S

PSYC 2227 Basic Statistics: 3 semester hours.

Consideration of statistical techniques and methods used in psychological investigations in terms of derivation, application, and limitation. PREREQ: MATH 1153 or permission of instructor. F, S

PSYC 2228 Introduction to the Theory of Measurement and Test Construction: 3 semester hours.

Brief history and survey of the development of psychological test instruments and an introduction to the theory and mechanisms of test construction. PREREQ: PSYC 2227. D

PSYC 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PSYC 3301 Abnormal Psychology: 3 semester hours.

Theory and research on characteristics, contributing factors, and treatment of psychological disorders. Topics include historical approaches to mental illness and evaluation of current practices in diagnosis of and treatment for psychological disorders. F, S

PSYC 3303 Psychology Research Methods: 4 semester hours.

Introduction to descriptive and experimental research designs in psychology. Students design and carry out research projects, with the goals of exposure to research ethics and advancing critical thinking, scientific writing, and oral presentation skills. PREREQ: PSYC 1101 and PSYC 2227. F, S

PSYC 3305 Psychology of Consciousness: 3 semester hours.

This course presents the principle concepts, theories, and research regarding the nature of consciousness and its various states. Topics may include the human sleep-wake cycle, dreaming, time phenomenology, psychotropic drug effects, hypnosis, meditation, biofeedback, and intuition. PREREQ: PSYC 1101 or permission of instructor. D

PSYC 3310 Applied Techniques: 1-3 semester hours.

Acquaints students with techniques in selected areas of applied psychology, such as stress management, animal training, human factors, behavior modification, etc. May be repeated for up to 6 credits. D

PSYC 3332 Psychology of Adolescence: 3 semester hours.

Critical review of work related to the physiological, cognitive, and emotional development of the adolescent personality. General concepts relating to specific characteristics of adolescent behavior will be developed. PSYC 1101 recommended as a pre-requisite. PREREQ: PSYC 2225. D

PSYC 3341 Social Psychology: 3 semester hours.

Study of the impact of social and cultural forces upon the individual and of the interaction between individuals producing social phenomena. F

PSYC 3344 Adult Development and Aging: 3 semester hours.

Study of development across adulthood, emphasizing late adulthood to death. Considers biological, social, and cognitive domains of development and contexts of change. PREREQ: PSYC 1101. D

PSYC 3369 Fundamentals of HIV: 1 semester hour.

This survey course provides an overview of HIV from biomedical, psychological, and sociological perspectives. The intrusive nature of this epidemic into all aspects of our lives is emphasized. No science background is required. Graded S/U. D

PSYC 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

PSYC 4401 Theories of Personality: 3 semester hours.

Study of the main theories of personality from both historical and contemporary perspectives, including trait theory, biological, psychoanalytic, humanistic, cross-cultural, behavioral, and social learning. Emphasis will be given to applying theories with the goal of understanding personality and predicting behavior. PREREQ: PSYC 1101 or permission of instructor. S

PSYC 4404 Sensation and Perception: 4 semester hours.

The anatomical and physiological bases of sensation will be reviewed. Moreover, traditional and contemporary theories of perception will be critically considered. Students will be expected to do laboratory work illustrating basic concepts of sensory and perceptual functions. D

PSYC 4408 Science Pseudoscience and Psychology: 3 semester hours.

Critical evaluation of fringe-science, paranormal, and other unproven claims. Introduction to the psychological processes underlying pseudo-scientific thinking and beliefs. D

PSYC 4412 Ethical and Professional Issues in Psychology: 2 semester hours.

An introduction to ethical and professional standards in the field of psychology including a historic and contemporary framework. S

PSYC 4417 Interdisciplinary Evaluation Team: 1 semester hour.

Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. PREREQ: PSYC 1101 or permission of instructor. Equivalent to CSD 4417, DHS 4417, NURS 4417, and SOWK 4417. S

PSYC 4423 Community Practicum: 1-2 semester hours.

Students work in regional agencies by observing or participating in professional activities under appropriate supervision. Four hours per week per credit. May be repeated up to 6 credits. Graded S/U. PREREQ: Permission of instructor. F, S, Su

PSYC 4425 Psychology Clinic Practicum: 1-2 semester hours.

Undergraduates observe and assist graduate students and faculty in the delivery of psychological services. Four hours per week per credit. May be repeated up to 6 credits. Graded S/U. PREREQ: Permission of instructor. F, S, Su

PSYC 4431 Behavioral Neuroscience I: 3 semester hours.

Introduction to behavioral neuroscience with an emphasis on the relation between the central nervous system and behavior. Topics include: basic neuroanatomy, neurophysiology, hormones, sensory systems, motor systems, learning, memory, homeostatic regulation, and evolution. F

PSYC 4432 Behavioral Neuroscience II: 3 semester hours.

Critical evaluation of contemporary research in behavioral neuroscience. Emphasizes current research and theories concerning neural mechanisms of behavior. PREREQ: PSYC 4431 or permission of instructor. AS

PSYC 4435 Animal Behavior: 3 semester hours.

Study of experiments in animal learning which relate to our understanding of human learning. Course is concerned with both observation and experimental studies of habit formation, conditioning, related endocrinology, and nerve structure as they are associated with behavior capabilities. D

PSYC 4443 Advanced Social Psychology: 3 semester hours.

In-depth study of current theory, issues and research in the field of social psychology. Emphasis is on newly emerging research areas. PREREQ: PSYC 3341 or permission of instructor. D

PSYC 4445 Learning and Behavior: 3 semester hours.

Survey of the major principles of learning, including the processes underlying operant and classical conditioning. PREREQ: PSYC 1101 and permission of instructor. F

PSYC 4446 Cognitive Process: 3 semester hours.

A survey of the major and current concepts, theories, and research in cognitive psychology. Areas of emphasis include attention, memory, information processing, mental imagery, decision-making, and problem solving. S

PSYC 4451 Clinical Psychology: 3 semester hours.

Surveys the field of clinical psychology; with emphasis on past and present status, diagnosis, assessment, critical topics related to intervention, the clinical psychologist's professional role, and student training. D

PSYC 4453 Theory and Method of Psychosocial Child Therapy: 3 semester hours.

Review of the psychopathology, diagnosis, and treatment of the major psychosocial disorders of childhood. PREREQ: PSYC 2225. D

PSYC 4463 Clinical Psychology and the Law: 3 semester hours.

An introduction to the field of forensic psychology, and the intersection of mental health as it relates to the legal system. Emphasis will be on expert testimony by clinicians in matters of criminal responsibility, mental competency, civil commitment, and child custody. D

PSYC 4465 Behavioral Medicine: 3 semester hours.

Psychological issues of health, disease states, and prevention. Critical evaluation of clinical research and practice, including nontraditional healing techniques and current models used to understand health and disease. PREREQ: PSYC 1101 or permission of instructor. D

Radiographic Sci (RS)

Courses

RS 1105 Introduction to Radiographic Science: 1 semester hour.

History of the profession, responsibilities of the technologist, professional development, radiation protection, areas of specialization. F, S, W

RS 3310 Radiographic Methods I: 2 semester hours.

Introduces the student to basic terminology, theory and principles of anatomy, and positioning of the chest, abdomen, and upper extremities. F

RS 3311 Radiographic Methods II: 2 semester hours.

Introduces the student to basic theory and principles of radiographic procedures of the lower limb, femur, pelvic girdle, cervical/thoracic/lumbar spine, sacrum coccyx, and upper gastrointestinal system. S

RS 3312 Radiographic Methods III: 2 semester hours.

Continuation of 3311 emphasizing theory and principles of radiographic examinations of the lower gastrointestinal system, bony thorax, skull and cranial bones, facial bones, paranasal sinuses, and urinary system. F

RS 3320 Radiographic Imaging Applications: 1 semester hour.

Exploration of the methodology of various types of radiographic recording media applications including image acquisition, image processing, and image manipulation for compound radiography (CR), digital radiography (DR), and x-ray film screen. F

RS 3320L Radiographic Imaging Applications Laboratory: 1 semester hour.

Laboratory experience with photographic technique including image recording media, acquisition, manipulation of CR/DR, and film screen methods. F

RS 3325 Patient Care in Radiography: 3 semester hours.

Introduction to patient care principles and procedures utilized in radiography including vital signs, body mechanics, catheterization, sterile procedures, drug administration, isolation techniques and medical emergency procedures. F

RS 3330 Radiographic Exposure: 3 semester hours.

Determination of radiographic exposure values with emphasis on radiographic quality and equipment used in the production of radiographs. COREQ: RS 3330L. F

PSYC 4467 Topics in Psychology: 1-3 semester hours.

Selected topics in psychology. Contents vary. May be repeated with different content. PREREQ: PSYC 1101 or permission of the instructor. D

PSYC 4472 History of Psychology: 3 semester hours.

Modern psychology in historical perspective. Genesis and development of fundamental problems and methods, with emphasis on specific fields of research. PREREQ: Fifteen hours in Psychology beyond PSYC 1101 or permission of instructor. S

PSYC 4483 Special Problems: 1-3 semester hours.

Research or readings in a special area of interest to be arranged on an individual basis with individual faculty. May be repeated to a maximum of 9 credits. PREREQ: Permission of instructor. D

PSYC 4491 Senior Seminar: 3 semester hours.

Library, field, or experimental research in an area selected by the instructor, including oral and written presentation of results. PREREQ: 90 credits and PSYC 3303. Graded S/U. D

PSYC 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

RS 3330L Radiographic Exposure Lab: 0 semester hours.

Assignments to apply principles from RS 3330. COREQ: RS 3330. F

RS 3340 Laboratory Practicum I: 1 semester hour.

Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, basic x-ray interpretation, patient management, communications, and manipulation of x-ray equipment. F

RS 3341 Laboratory Practicum II: 1 semester hour.

Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, basic x-ray interpretation, patient management, communications, and manipulation of x-ray equipment. COREQ: RS 3311. S

RS 3342 Laboratory Practicum III: 1 semester hour.

Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, basic x-ray interpretation, patient management, communications, and manipulation of x-ray equipment. COREQ: RS 3312. S

RS 3375 Pediatric Radiography: 1 semester hour.

Study of the theory and clinical application of pediatric radiography. S

RS 3388 Radiation Protection: 1 semester hour.

Topics include: x-ray interaction with matter, quantities and units of radiation, biological effects of ionizing radiation, MPD, radiation detection instruments, methods to minimize radiation exposure to patients and personnel, and U.S. Government radiation control standards. S

RS 3389 Applied Radiography I: 4 semester hours.

Clinical applications of radiographic examinations with emphasis on the chest, abdomen, and upper limbs. F

RS 3390 Applied Radiography II: 4 semester hours.

Clinical applications of radiographic examinations with emphasis on the lower extremity, hips, and pelvis. S

RS 4421 Computed Tomography: 1 semester hour.

Basics of computed tomography covering fundamentals, equipment and instrumentation, data acquisition, image processing, reconstruction, patient safety, image quality, procedures, cross-sectional anatomy, and additional applications. Su

RS 4430 Radiologic Pathology: 2 semester hours.

Study of the pathological processes of various diseases and disorders with emphasis on the demonstration of pathology on radiographs. S

RS 4441 Advanced Radiographic Methods I: 1 semester hour.

Advanced methodology, theory and principles of radiographic procedures. Designed to develop proficiency in performance of specialized radiographic examinations. PREREQ: RS 3312 and RS 3342. S

RS 4450 Alternate Imaging Modalities with Introduction to Evidence-Based Research: 1 semester hour.

An introduction to Alternate Imaging Modalities such as CT and MRI with an emphasis on evidence-based research in radiographic science. F

RS 4460 Introduction to Radiographic Quality Assurance: 2 semester hours.

Study and application of equipment maintenance procedures to assure consistency in the contrast, density/brightness, and sharpness of radiographic images. F

RS 4470 Advanced Radiographic Exposure: 2 semester hours.

In-depth study in establishing radiographic exposure values; digital fluoroscopy; image intensification; and CR, DR, EMR, and PACS systems. S

RS 4475 Registry Review: 2 semester hours.

In-depth study of material that may be presented on the written registry review administered by the American Registry of Radiologic Technologists (ARRT). S

RS 4481 Independent Problems in Radiography: 1-2 semester hours.

Study of topics in radiography selected by students and faculty. May be repeated for up to 4 credits. D

RS 4488 Applied Radiography III: 5 semester hours.

Clinical application of radiographic examinations with emphasis on the pediatric chest, non-ambulatory chest, cervical, thoracic, lumbar spine, sacrum/coccyx, and gastrointestinal procedures. Su

RS 4489 Applied Radiography IV: 6 semester hours.

Clinical application of radiographic examinations performed in a trauma, mobile, and surgical setting. F

RS 4490 Applied Radiography V: 6 semester hours.

Clinical application of radiographic examinations including ribs, head radiography, urinary system, arthrography, and myelography. S

RS 4491 Seminar-Selected Topics: 1-6 semester hours.

Group studies of topics not covered in regular offerings. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

RS 4495 Internship in Special Diagnostic Imaging: 2 semester hours.

Eight week internship providing opportunity to participate in diagnostic examinations requiring a special modality, e.g. peripheral or cardiac angiography, computerized tomography, ultrasound, magnetic resonance. PREREQ: Permission of instructor. D

Registered Nursing (ADRN)

Courses

ADRN 2210 Nursing Transition: 2 semester hours.

Professional skills needed in the transition of roles from LPN to RN are addressed. The three roles of the professional nurse and evidence-based decision-making are stressed. Admission to program. Su

ADRN 2211 Mental Health Nursing: 3 semester hours.

Nursing assessment and care of the patient and family experiencing psychosocial and mental health disorders within acute, chronic, and community settings. PREREQ: Admission to program. Su

ADRN 2212 Clinical Foundations of Nursing III: 2 semester hours.

Clinical experiences for nursing care within a variety of acute and community-based settings guide the development of the problem solving process in nursing. The focus of this course is on skilled nursing and mental health nursing care, including therapeutic use of self. COREQ: ADRN 2210 and ADRN 2211. Su

ADRN 2220 Health Assessment: 2 semester hours.

Health assessment of all ages, interpretation of data, extended development of critical thinking skills; developing patient care based on clinical findings. PREREQ: ADRN 2210. COREQ: ADRN 2220L and ADRN 2230. F

ADRN 2220L Health Assessment Lab: 1 semester hour.

Practical experience in health assessment of all ages; interpretation of clinical data in simulated situations; planning and prioritizing care based on clinical findings. PREREQ: ADRN 2210. COREQ: ADRN 2220 and ADRN 2231. F

ADRN 2230 Medical and Surgical Nursing III: 3 semester hours.

Professional nursing care of individuals and groups with acute and chronic health events requiring nursing assessment and intervention within institutional and community care facilities. PREREQ: ADRN 2212. COREQ: ADRN 2231. F

ADRN 2231 Clinical Foundations of Nursing IV: 4 semester hours.

Clinical experiences for nursing care within a variety of acute and community-based settings guide the development of knowledge and skills. PREREQ: ADRN 2212. COREQ: ADRN 2230. F

ADRN 2232 Family Nursing: 3 semester hours.

Study of conditions or complications of women's health, pregnancy, peri-partum, plus newborn, child, and family assessment; nursing care and prioritization of interventions for the child-bearing, child-rearing family are addressed. PREREQ: ADRN 2230. COREQ: ADRN 2245. S

ADRN 2233 Medical and Surgical Nursing IV: 3 semester hours.

The three roles of the nurse are established within the framework of legal and ethical professional nursing practice. Nursing assessments and interventions in the high-acuity patient are addressed. PREREQ: ADRN 2230. COREQ: ADRN 2245. S

ADRN 2245 Clinical Foundations of Nursing V: 4 semester hours.

Clinical practicum for the professional nursing care of high-acuity patients and their families. Nursing leadership is implemented along with critical thinking and evidence-based decision-making for persons and groups of persons experiencing health events. PREREQ: ADRN 2231. COREQ: ADRN 2233. S

ADRN 2296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

ADRN 2298 Independent Study: 1-5 semester hours.

Designed to address specific learning needs of individuals, this course enables students to enhance nursing knowledge and skills. PREREQ: Permission of instructor and program director. D

Respiratory Therapy (RESP)

Courses

RESP 2200 Introduction to Respiratory Care: 3 semester hours.

Introduction to the care of pulmonary patients. Focus on skills required and methods used to manage cardiopulmonary problems. Includes clinical practice of procedures and skills. COREQ: RESP 2200L. PREREQ: HO 0106 or HE/HCA 2210 and acceptance into the RESP program. F

RESP 2200L Introduction to Respiratory Care Lab: 1 semester hour.

Introduction to the care of pulmonary patients utilizing skills and methods required to manage cardiopulmonary problems. PREREQ: Acceptance into the RESP program. COREQ: RESP 2200. F

RESP 2211 Pharmacotherapy for Respiratory Therapists: 2 semester hours.

Study of therapeutic drug administration for respiratory therapists. Special emphasis on safety issues, sources of drug information, and application to respiratory care practice. PREREQ: Acceptance into the RESP program. COREQ: RESP 2200. F

RESP 2214 Introduction to Pulmonary Disease: 4 semester hours.

Integrated approach to the anatomy, physiology, and pathology of the cardiopulmonary system. Comparison of normal and abnormal function. Emphasis on cardiopulmonary functions that are frequently measured to monitor patient status. Includes clinical practice of procedures and skills. PREREQ: RESP 2200. S

RESP 2231 Patient Assessment I: 2 semester hours.

Holistic approach to assessment of adult and pediatric patients in subacute/homecare settings. Special emphasis on assessment of the cardiopulmonary function. PREREQ: RESP 2214. Su

RESP 2232 Patient Assessment II: 2 semester hours.

Holistic approach to assessment of adult and pediatric patients in acute care settings. Special emphasis on assessment of the cardiopulmonary function. PREREQ: RESP 2231. F

RESP 2280 Case Management I: 2 semester hours.

Holistic approach to the management of adult and pediatric patients in sub-acute settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 2231. F

RESP 2296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

RESP 2298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

RESP 3301 Mechanical Ventilators: 3 semester hours.

Exploration of operational characteristics of critical care, home care, transport, and neonatal ventilators. Includes clinical practice of procedures and skills. PREREQ: RESP 2200. COREQ: RESP 3301L. S

RESP 3301L Mechanical Ventilators Lab: 1 semester hour.

Lab performance and proficiency testing with equipment, concepts and techniques related to providing advanced care and managing cardiopulmonary problems of pulmonary patients. PREREQ: RESP 2200. COREQ: RESP 3301. S

RESP 3310 Case Management II: 2 semester hours.

Holistic approach to the management of adult and pediatric patients in acute care settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 2280. S

RESP 3320 Clinical Practice of Therapeutic Procedures I: 5 semester hours.

Focus on conducting respiratory care in the sub-acute setting. PREREQ: RESP 2200, RESP 2200L, and RESP 2211. S

RESP 3325 Clinical Practice of Therapeutic Procedures II: 3 semester hours.

Focus on conducting respiratory care in the acute setting. PREREQ: RESP 2214, RESP 3301, and RESP 3320. Su

RESP 3330 Clinical Practice of Therapeutic Procedures III: 5 semester hours.

Focus on conducting respiratory care in the acute setting. PREREQ: RESP 2231 and RESP 3325. F

RESP 3335 Clinical Practice of Therapeutic Procedures IV: 5 semester hours.

Focus on conducting respiratory care in the acute and intensive care settings. PREREQ: RESP 2232, RESP 2280, and RESP 3330. S

Robotics and Comm Sys Eng Tech (RCET)

Courses

RCET 0153A Basic Electricity and DC Circuit Theory: 4 semester hours.

The fundamental principles of basic electricity and DC circuit theory will be covered. Topics covered will include related technical math, safety procedures, components, and the principles of electrical circuit analysis including voltage, current, resistance, and related laws. COREQ: RCET 0153B. F, S

RCET 0153B Basic Electricity and AC Circuit Theory: 4 semester hours.

Introduction to the theoretical and mathematical principles applied to basic reactive (electrostatic and electromagnetic) components, and alternating current circuits. Includes algebraic and trigonometric analysis of passive high pass, low pass, resonant filter networks, and rectifying circuits. PRE-or-COREQ: RCET 0153A. COREQ: RCET 0155B. F, S

RCET 0154A Analog Control Devices Theory: 4 semester hours.

Introduction and application of semiconductor transistor devices. Study of amplifier configurations and classifications. Exploration of differential and operational amplifiers with common applications. Coursework includes a combination of mathematical and theoretical principles applied to the various electronic circuits studied. COREQ: RCET 0156A. PREREQ: RCET 0153A, RCET 0153B, RCET 0155A, and RCET 0155B. F, S, D

RCET 0154B Digital Control Devices Theory: 4 semester hours.

Introduction and application of digital logic devices. Study of combinational logic circuits and common applications. Investigation of digital and logic based numerical systems and encoding formats. Coursework includes a combination of mathematical and theoretical principles applied to the various electronic circuits studied. PREREQ: RCET 0154A and RCET 0156A. COREQ: RCET 0156B. F, S, D

RCET 0155A Basic Electricity and DC Circuit Lab: 2 semester hours.

Students will construct, analyze, predict and measure DC circuits while selecting and using appropriate test equipment. Project reports require design concepts, theoretical application, and demonstration of principles and practices learned in math, theory and laboratory. Students will learn to adhere to safe work practices. COREQ: RCET 0155B. F, S

RCET 0155B Basic Electricity and AC Circuit Lab: 2 semester hours.

Emphasizes understanding of alternating current circuitry covered in RCET 0153B, by allowing students to design, construct, test, and troubleshoot using proper test equipment. PRE-or-COREQ: RCET 0155A. COREQ: RCET 0153B. F, S

RCET 0156A Analog Control Devices Laboratory: 2 semester hours.

Experiments involving semiconductor transistor devices, discrete amplifiers, differential amplifiers, and operational amplifiers with common applications. Coursework includes utilization of test equipment and soldering tools for practical circuit development. PREREQ: RCET 0153A, RCET 0153B, RCET 0155A, and RCET 0155B. COREQ: RCET 0154A. F, S, D

RCET 0156B Digital Control Devices Laboratory: 2 semester hours.

Experiments involving the utilization of digital logic devices to create common and custom combinational logic circuits. Coursework includes utilization of test equipment and soldering tools for practical circuit development. PREREQ: RCET 0154A and RCET 0156A. COREQ: RCET 0154B. F, S, D

RCET 0199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

RCET 0251 Systems Analog and Digital Theory: 6 semester hours.

Analog circuit analysis applied to amplifiers, power supplies, op-amps, and discrete switching circuits, with an emphasis on frequency limitations of discrete components and circuitry. Introduction to actuator, motor, and transducer control circuitry. COREQ: RCET 0253. F, S

RCET 0253 Systems Analog and Digital Laboratory: 5 semester hours.

Emphasizes understanding of analog and digital circuitry by allowing students to design, construct, test, and troubleshoot using proper test equipment. Experiments involve subjects covered in RCET 0251 and RCET 0271. PREREQ: RCET 0156B. COREQ: RCET 0251. F, S

RCET 0264 Introductory Calculus: 4 semester hours.

Correlations of algebraic, trigonometric and geographic topics as well as logarithms and their applications. Algebraic calculus concepts involving differentiation and integration and their applications to electronic circuits and waveform analysis. Supports RCET 0251. PREREQ: RCET 0154B or equivalent. F, S

RCET 0265 Computer Fundamentals and Introduction to Programming: 4 semester hours.

Basic computer components and functions. Introduction to operating system file structures. Introduction to and use of element-driven programming languages and integrated development environments. F, S

RCET 0267 Radio Frequency Transmission Theory: 6 semester hours.

Theory, analysis, and design of devices operating in the radio frequency spectrum. Fundamentals involving the phenomena of radio waves from audio frequencies through light rays. PREREQ: RCET 0251, RCET 0253, and RCET 0264. COREQ: RCET 0268. F, S

RCET 0268 Radio Frequency Transmission Lab: 5 semester hours.

Maintenance, design, and adjustment of RF oscillators, amplifiers, AM, FM and single sideband, mobile and fixed station transmitters; transmission lines and antennas; microwave transmitters and measurement techniques. PREREQ: RCET 0251, RCET 0253, and RCET 0264. COREQ: RCET 0267. F, S

RCET 0271 Introduction to Lab Simulation Software: 2 semester hours.

Introduction to lab simulation software environments used to build data acquisition and instrument control applications. F, S

RCET 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U; may be letter graded. PREREQ: Permission of instructor. D

RCET 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U; may be letter graded. PREREQ: Permission of instructor. D

RCET 1372 Calculus for Advanced Electronics: 4 semester hours.

Algebraic, trigonometric, logarithmic and exponential functions, derivatives and integrals with electronic and other physical applications. Also included McClaurin's, Taylor's and Fourier's series and introduction to differential equations. Supports RCET 0374. Satisfies Objective 3 of the General Education Requirements. F, S

RCET 3331 Laser Systems and Optics Theory: 4 semester hours.

Theory and analysis of lasers and associated devices. Laser safety, components, maintenance, and repair. Wave and geometric optics, electro-optic devices and components, interferometry, holography, and fiber-optics. PREREQ: RCET 0154B. COREQ: RCET 3332. D

RCET 3332 Laser Systems and Optics Laboratory: 3 semester hours.

Experiments using lasers and associated devices. Focus on laser safety, components, maintenance, and repair. Experiments include applications of geometric optics, electro-optic devices, interferometry, holography, fiber-optics, and characterization of multiple wavelength laser devices. PREREQ: RCET 0156B. COREQ: RCET 3331. D

RCET 3370 Electronic Drafting for PCB Design: 3 semester hours.

The utilization of computer aided drafting software, manufacturer's technical documentation, and high-accuracy measuring tools for printed circuit board development. Schematic capture, symbol creation, footprint development, netlist generation, routing techniques, file generation, and bill of material finalization. Investigation into high current and high frequency applications. PREREQ: RCET 0251. D

RCET 3371 Advanced Programming Techniques and GUI Development: 4 semester hours.

An in depth analysis of graphical based programming development, data collection and sorting/searching with multi-level arrays, and peripheral device communication techniques. Examination of compilers and interpreters for utilization of high level programming languages. Detailed study of software debugging techniques and practices. The course includes extensive exercises and projects in various programming languages. PREREQ: RCET 0265, RCET 0271. D

RCET 3373 Advanced Computer Architecture and Embedded Systems Theory: 5 semester hours.

Design, application, and assessment of computer systems and peripheral devices. A study of microprocessors, embedded systems, memory devices, arithmetic logic units, and analog to digital / digital to analog converters. Development of sensory input devices and hardware interfacing techniques. Analysis of address / data bus management, and single-cycle, multicycle, and pipeline operation. PREREQ: RCET 0154B, RCET 0251. COREQ: RCET 3375. D

RCET 3374 Advanced Systems Analysis Theory: 4 semester hours.

Advanced exploration of complex electronic circuitry and schematic analysis. Investigation of multicomponent system integration, timing, termination, and calibration. A study of electronically generated mixed signals, filtering, wave-shaping, and applications. An emphasis on large system troubleshooting techniques. PREREQ: RCET 0251, RCET 0267. COREQ: RCET 3376. D

RCET 3375 Advanced Computer Architecture and Embedded Systems Laboratory: 5 semester hours.

Laboratory experiments and projects to investigate the design, application, and assessment of computer systems and peripheral devices. Connect, interface, and develop firmware for microprocessors and embedded systems, and various peripheral devices. Utilization of high speed data bus analysis and communication protocol test equipment. PREREQ: RCET 0156B, RCET 0253. COREQ: RCET 3373. D

RCET 3376 Advanced Systems Analysis Theory: 5 semester hours.

Laboratory experiments investigating complex multicomponent system integration, timing, termination, and calibration with electronically generated mixed signals, filtering, wave-shaping, and applications. An emphasis on large system troubleshooting techniques and teamwork. Includes a capstone project. PREREQ: RCET 0253, RCET 0268. COREQ: RCET 3374. D

RCET 3382 Rapid Prototyping Technologies: 2 semester hours.

Application of the software, technologies, and techniques used in modern rapid prototyping processes related to robotics design. PREREQ: RCET 0267. F

RCET 3383 Advanced Laser Systems and Optics Theory: 5 semester hours.

Advanced theory and analysis of lasers and associated devices. Covers advanced laser topics, wave and geometric optics, electro-optics devices and components. PREREQ: Permission of Instructor. D

RCET 3384 Advanced Laser Systems and Optics Laboratory: 3 semester hours.

Practical application of advanced theory and analysis in analyzing laser/optics systems. PREREQ: Permission of Instructor. D

RCET 3396 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U; may be letter graded. PREREQ: Permission of instructor. D

RCET 3398 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U; may be letter graded. PREREQ: Permission of instructor. D

Russian (RUSS)

Courses

RUSS 1101 Elementary Russian I: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in Russian and to acquaint them with the culture of Russian speakers. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

RUSS 1102 Elementary Russian II: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in Russian and to acquaint them with the culture of Russian speakers. Practice in the language laboratory is required. PREREQ: RUSS 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. D

RUSS 2201 Intermediate Russian I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Russian. Contrastive study of culture as reflected in the Russian language. Practice in the language laboratory is required. PREREQ: RUSS 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

RUSS 2202 Intermediate Russian II: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Russian. Contrastive study of culture as reflected in the Russian language. Practice in the language laboratory is required. PREREQ: RUSS 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

RUSS 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

RUSS 3301 Russian Conversation and Composition I: 3 semester hours.

Intensive practice speaking and writing Russian in forms and styles common to economics, politics, science, society, the arts and creative writing of the Russian-speaking world. PREREQ: RUSS 2202 or equivalent. D

RUSS 3302 Russian Conversation and Composition II: 3 semester hours.

Intensive practice speaking and writing Russian in forms and styles common to economics, politics, science, society, the arts and creative writing of the Russian-speaking world. PREREQ: RUSS 2202 or equivalent. D

RUSS 3305 Study Abroad: 1-6 semester hours.

Available only through study overseas. Development of upper-division level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

RUSS 4470 Readings in Russian: 2 semester hours.

Reading, discussion, and writing on selected topics in Russian literature. May be repeated for up to 6 credits with different content. Conducted in Russian. PREREQ: Permission of instructor. D

School Psychology (SCPY)

Courses

SCPY 1001 Psychology of Diversity and Learning in Schools: 3 semester hours.

This course frames diversity as a broad, dynamic, and complex idea that encompasses differences in race, ethnicity, SES, language, gender, sexual orientation, religion, and disability status, to name a few. Psychological theories and research will be examined. Course will be activity driven with a service learning component. The goal of the course is to increase students' knowledge, exposure, self-awareness, and appreciation for diversity and its impact on school-age children. Fulfills Objective 9 of the General Education Requirements. S

Shoshoni (SHOS)

Courses

SHOS 1101 Elementary Shoshoni I: 4 semester hours.

Basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Partially satisfies Objective 4 of the General Education Requirements. F

SHOS 1102 Elementary Shoshoni II: 4 semester hours.

Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. PREREQ: SHOS 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. S

SHOS 2201 Intermediate Shoshoni I: 4 semester hours.

Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni Culture and builds on skills and knowledge gained in Elementary Shoshoni. Equivalent to ANTH 2201. PREREQ: SHOS 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F

SHOS 2202 Intermediate Shoshoni II: 4 semester hours.

Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni culture and builds on skills and knowledge gained in Elementary Shoshoni. Cross-listed as ANTH 2202. PREREQ: SHOS 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

Social Work (SOWK)

Courses

SOWK 2271 Introduction to Social Work: 3 semester hours.

Introductory overview and history of the social work profession within the social welfare system, and introduction to the generalist model of practice in social work. Attention is given to micro, mezzo, and macro levels of practice as social workers may work with individuals, families, groups or communities. Students will examine their own beliefs and values and their social, cultural, and historical positioning, and how these forces influence interactions with potential clients. Students will be introduced to ethics, values and standards of the social work profession. Throughout the course, students will be encouraged to apply critical thinking skills to class material. F, S

SOWK 2272 Human Development and Diversity: 3 semester hours.

Conceptual frameworks and issues in human behavior and development across the lifespan, with attention given to the concept of person in the environment as a framework for understanding individual behavior as a function of bio-psycho-social-spiritual processes and interactions. Substantial information on human diversity and at-risk populations, including issues pertaining to racial and ethnic groups, and gender and sexual orientations. F, S

SOWK 2299 Experimental Course: 1-3 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SOWK 3308 Sociological Methods and Social Work Research: 3 semester hours.

Introduces the principles and procedures of scientific research and includes a variety of strategies and tools for studying social phenomena. Equivalent to SOC 3308. PREREQ: C in SOC 1101. F

SOWK 3372 Practice Interventions with Individuals and Families: 3 semester hours.

Examine micro level systems within the generalist social work framework. Theoretical frameworks for use with individuals and families as well as interviewing and problem-resolution methods will be covered. Students will utilize a generalist skill base in learning to engage, assess, intervene and evaluate individuals and families. PREREQ: Admission to Social Work Major. F, S

SOWK 3373 Practice Interventions with Groups: 3 semester hours.

Mezzo level systems within the generalist social work framework. Group theory, process, dynamics, and practice applications will be covered. Students will use a generalist skill base in learning to engage, assess, intervene, and evaluate small group systems. PREREQ: SOWK 3372. F, S

SOWK 3375 Application of Contemporary Social Work Theory: 3 semester hours.

Expansion of theory and practice concepts introduced in SOWK 2272 and used in social work practice courses. The relationship between social work theory and practice is explored for the purpose of increasing depth of understanding and generalization of knowledge. Focus will be on application of theory in building skills necessary for competency including written and oral communication skills, using research evidence to inform practice, and critiquing and utilizing major theoretical frameworks to guide the processes of engagement, assessment, intervention, and evaluation. S

SOWK 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SOWK 4417 Interdisciplinary Evaluation Team: 1 semester hour.

Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Equivalent to CSD 4417, DHS 4417, NURS 4417, and PSYC 4417. PREREQ: Permission of instructor. S

SOWK 4436 Elite Deviance and Crime: 3 semester hours.

Explores the types of criminal behaviors engaged in by the American socioeconomic and corporate elite. The course first explores and identifies who this elite is and then examines their ideological and economic history in American society. Specific examples of elite and corporate crime are presented and discussed in class. Equivalent to SOC 4436 and POLS 4436. F

SOWK 4438 Sexual Crimes: 3 semester hours.

Complex relationships of human sexuality to law and crime. A range of sexual attitudes, practices and lifestyles will be discussed in the context of cultural norms, legal parameters and personal expression. Students will be introduced to cultural variations in defining and addressing sexuality and crime. Current theoretical explanations of sexual offending and U.S. social policies and clinical interventions for sexual offenders. Equivalent to SOC 4438. S

SOWK 4471 Social Justice, Advocacy, and Policy Practice: 3 semester hours.

Examine social policies created as society's strategy for addressing social concerns such as unemployment, poverty, and mental illness. Students will critically evaluate programs and policies in order to develop skills to advance social and economic justice and to deliver effective social work services. PREREQ: Admission to Social Work Major. F

SOWK 4476 Social Work Field Practicum and Seminar I: 6 semester hours.

Placement within a social service agency under direct supervision of a licensed social worker for a minimum of 200 hours and a weekly on-campus seminar. Functions as an entry level opportunity for the student to apply professional values, knowledge and skills. Seminar permits discussion and reflection upon this field experience and serves an integrative function for linking theory to applied practice. PREREQ: SOC 3308/SOWK 3308, SOWK 3372, SOWK 3373, SOC 3309, and SOWK 4471. (For Spring Only: COREQ: SOWK 4477.) F, S

SOWK 4477 Social Work Field Practicum and Seminar II: 6 semester hours.

Continuation of senior field practicum experience consisting of placement within a social service agency under direct supervision of a licensed social worker for a minimum of 200 hours and a weekly on-campus seminar. Students will refine and utilize professional values, knowledge and skills. Seminar permits discussion and reflection upon this field experience and serves an integrative function for linking theory to applied practice. PREREQ: SOC 3308/SOWK 3308, SOWK 3372, SOWK 3373, SOC 3309, and SOWK 4471. PREREQ or COREQ: SOWK 4476. COREQ: SOWK 4498. F, S

SOWK 4482 Independent Problems: 1-6 semester hours.

Consultation course. May be repeated for up to 6 credits. PREREQ: 12 credits in Social Work and permission of instructor. D

SOWK 4484 Title IV-E Scholar Seminar: 1 semester hour.

Professional competencies required for social work practice in foster care and adoption assistance programs, to prepare students for career advancement in public child welfare, and to prepare students for child welfare practice addressed by Title IV-E of the Social Security Act. PREREQ: Permission of instructor. COREQ: SOWK 4476 or SOWK 4477. D

SOWK 4485 Living and Dying: 3 semester hours.

Prepares students to work with clients experiencing grief and loss issues stemming from a variety of loss experiences including death, physical health changes, trauma, and life transitions. Includes the philosophical, cultural, medical, psychological, and spiritual aspects of grieving and loss; the grief process and factors to consider in working with children, adolescents, and adults; and assessment of complicated grief reactions. D

SOWK 4487 Children and Families: Practice Perspectives and Well-Being: 3 semester hours.

An exploration of the many facets of child welfare, including factors impacting the well-being of children and their families on a local and global level, such as governmental policies and societal values regarding child welfare, social issues that affect children, available services for children, and social work intervention strategies. D

SOWK 4491 Seminar: 3 semester hours.

Topical reading, discussion, exploration, experience, and demonstration of learning on selected topics. May be repeated for up to 9 credits with different content. D

SOWK 4494 Practice Interventions with Organizations and Communities: 3 semester hours.

Advanced focus on community and organizational structure and function. Uses the generalist model of social work with macro level systems including building knowledge and skills focusing on social action and social change. Specific attention is given to helping students develop necessary skills to engage, assess, intervene and evaluate with organizations and communities (macro level) effectively. PREREQ: SOWK 3372. S

SOWK 4498 Integration of Social Work Practice, Theory, and Research: 3 semester hours.

Comprehensive review and synthesis of all social work content areas within the generalist framework including ethics, critical thinking, diversity, human rights, social and economic justice, research, HBSE, policy and practice. Preparation for Social Work licensure test as well as special topics depending on student need and interests are also covered. PREREQ: SOWK 3308, SOWK 3372, SOWK 3373, SOC 3309, and SOWK 4471. COREQ: SOWK 4477. F, S

SOWK 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Sociology (SOC)

Courses

SOC 1101 Introduction to Sociology: 3 semester hours.

Introduction to the scientific point of view in the study of group life, social institutions, and processes. Partially satisfies Objective 6 of the General Education Requirements. F, S

SOC 1102 Social Problems: 3 semester hours.

Theoretical analyses and application of research to selected current social issues and social institutions such as politics, economics, education, medicine, families, the military, crime and corrections, religion and related major social forces. Partially satisfies Objective 6 of the General Education Requirements. F, S

SOC 2201 Introduction to Gender and Sexuality Studies: 3 semester hours.

This course will examine gender and sexuality from a sociological perspective. It will focus on the socio-cultural meanings of femininity and masculinity and how these intersect with race, ethnicity, class, sexuality, age and other aspects of identity. This course will also consider how incorporating the concept of gender into theories of human life can help explain broader social processes, and the ways in which our social conceptualization of gender change over time. Satisfies Objective 9 of the General Education Requirements. F, S

SOC 2231 Juvenile Delinquency: 3 semester hours.

Theories of delinquency, criminal behavior, and law enforcement in relation to the modern social institutions in American culture. F, S

SOC 2248 Critical Analysis of Social Diversity: 3 semester hours.

Critical analysis of historical and contemporary issues and debates surrounding social categories such as race, class, gender, ethnicity, religion, and sexuality. Students will utilize and assess various sociological theories and will critically examine how social diversity affects and is affected by other social and cultural dynamics. Satisfies Objective 7 of the General Education Requirements. F, S

SOC 2295 Criminal Justice Internship: 1-4 semester hours.

Required reading assignments and daily journal to be completed. Maximum of four credits per semester. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

SOC 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SOC 3301 Classical Social Theory: 3 semester hours.

A survey of the foundation of sociological thought from the Enlightenment to 1945. The focus is on the recurring themes in sociology and the importance of classical theory to understanding contemporary sociological theory and current social issues. PREREQ: SOC 1101. D

SOC 3308 Sociological Methods and Social Work Research: 3 semester hours.

Introduces the principles and procedures of scientific research and includes a variety of strategies and tools for studying social phenomena. Equivalent to SOWK 3308. PREREQ: C in SOC 1101. F

SOC 3309 Social Statistics: 3 semester hours.

A survey of statistical techniques focusing on descriptive statistics, hypothesis testing and correlations. Students work in computer labs and use software for statistical analysis commonly used in the social sciences to produce descriptive and summary statistics for large data sets. PREREQ: C in MATH 1153. S

SOC 3310 Introduction to Criminal Justice: 3 semester hours.

Introduction to Criminal Justice will introduce students to the historical background, important trends, and emerging issues in criminal justice. Students will learn about core topics in criminal justice-including policing, corrections, and criminal law and courts, as well as special topics such as hate crimes, sex offenders, and domestic violence-while learning how to solve problems they are likely to face in a variety of criminal justice career paths. F

SOC 3321 Sociology of the Family: 3 semester hours.

Examination of the family as a social institution shaped by larger social structures. The course introduces students to basic concepts and theories, historical perspectives, facts, and processes of family formation and dissolution. D

SOC 3330 Sociology of Health and Illness: 3 semester hours.

Sociological examination of health and illness including historical and cultural variations, health care and physician-patient issues. S

SOC 3335 Environmental Sociology: 3 semester hours.

The scientific study of how human societies interact with, shape, and perceive their physical environments. D

SOC 3366 The Community: 3 semester hours.

Examines selected theories of community origins, characteristics, structures, boundaries, and change. Analyze methods of studying various aspects of communities. F

SOC 3368 The Sociology of Religion: 3 semester hours.

Contemporary issues as they relate to religion. The relationship of religion to other social institutions. Religious experience and mysticism. Prophecy and its routinization. Cults and religious dissent. F

SOC 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SOC 4402 Professional Development for Sociologists: 3 semester hours.

An overview of the field of sociology, with emphasis on the teaching of sociology, orientation to graduate education, major sociological theories, issues, research approaches, and ethical problems in the field. PREREQ: Permission of instructor. D

SOC 4403 Contemporary Social Theory: 3 semester hours.

Survey and appraisal of sociological theories since 1945: structural functionalism, rational choice, conflict, symbolic interactionism, and phenomenology. PREREQ: SOC 3301. S

SOC 4408 Advanced Sociological Methods: 3 semester hours.

Emphasizes advanced techniques in research design, data measurement, and multivariate analysis utilizing computer application. PREREQ: SOC/SOWK 3308 and SOC 3309. AS

SOC 4412 Sexuality and the Body: 3 semester hours.

This course explores the social construction of sexuality and the body. Students will examine how sexuality and the body function as both literal and symbolic sites of political discourse and how sexuality and the body illuminate, accommodate, resist, and transform the machinations of social power. S

SOC 4413 Mind Body and Society: 3 semester hours.

Symbolic interaction and its relation to selfhood, sympathy, illness, sexuality, and addiction; and to groupings like enemies, communities, and associations. D

SOC 4431 Criminology: 3 semester hours.

Analysis of criminal law, law enforcement, judicial roles and processes, correctional approaches, the criminal offender and societal reactions. Theory and research as applicable to behavior and institutional relations. S

SOC 4436 Elite Deviance and Crime: 3 semester hours.

Explores the types of criminal behaviors engaged in by the American socioeconomic and corporate elite. The course first explores and identifies who this elite is and then examines their ideological and economic history in American society. Specific examples of elite and corporate crime are presented and discussed in class. Equivalent to POLS 4436 and SOWK 4436. F

SOC 4438 Sexual Crimes: 3 semester hours.

Complex relationships of human sexuality to law and crime. A range of sexual attitudes, practices and lifestyles will be discussed in the context of cultural norms, legal parameters and personal expression. Students will be introduced to cultural variations in defining and addressing sexuality and crime. Current theoretical explanations of sexual offending and U.S. social policies and clinical interventions for sexual offenders. Equivalent to SOWK 4438. S

SOC 4462 Power Class and Prestige: 3 semester hours.

Theories and methodology of status systems; the relation of class to the social structure; analysis of class in different societies, with emphasis upon the class system and power. PREREQ: SOC 1101 or permission of instructor. S

SOC 4482 Sociology Internship: 1-3 semester hours.

Apply sociological principles in such ways as assisting the supervising professor with a lower-level course, conducting study groups, or small group instruction. Credits not applicable toward the major. May be repeated for up to 6 credits. PREREQ: Permission of instructor; junior status; minimum of 12 hours and 3.0 GPA in Sociology. D

SOC 4483 Independent Problems in Sociology: 1-4 semester hours.

Readings, observations, applied work, or data analysis in content area not offered in our curriculum. May be repeated for up to 6 credits. PREREQ: Permission of the instructor; advanced junior status; minimum of 12 hours and 3.0 GPA in Sociology. D

Spanish (SPAN)

Courses

SPAN 1101 Elementary Spanish I: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in Spanish and to acquaint them with the culture of the Spanish-speaking countries. Partially satisfies Objective 4 of the General Education Requirements. F, S

SPAN 1102 Elementary Spanish II: 4 semester hours.

Intended to teach students basic communication skills and grammatical structures in Spanish and to acquaint them with the culture of the Spanish-speaking countries. PREREQ: SPAN 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. F, S

SPAN 2200 Intermediate Enrichment: 1-4 semester hours.

Enhances intermediate students' progress in listening, speaking, reading, writing as well as broadening cultural and historical understanding. May be repeated for a maximum of 4 credits. F, S, Su

SPAN 2201 Intermediate Spanish I: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Spanish. Contrastive study of culture as reflected in the Spanish language. PREREQ: SPAN 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F, S

SPAN 2202 Intermediate Spanish II: 4 semester hours.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Spanish. Contrastive study of culture as reflected in the Spanish language. PREREQ: SPAN 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. F, S

SPAN 2205 Study Abroad: 3-6 semester hours.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

SPAN 2210 Spanish for Health Care I: 3 semester hours.

A course designed to teach health care professionals how to communicate proficiently with Spanish-speaking patients. Integrates thematically-related vocabulary, grammar, and culture with an emphasis on occupational communication. Credit by examination option is available for this class. Contact department for details. PREREQ: SPAN 1102 or equivalent. F

SOC 4491 Topics in Sociology: 3 semester hours.

Readings, discussion, and preparation of reports on selected topics. May be repeated with different content. D

SOC 4492 Topics in Criminal Justice: 3 semester hours.

Readings, discussion, and preparation of reports on selected topics. May be repeated with different content. D

SOC 4499 Experimental Course: 1-3 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SPAN 2211 Spanish for Health Care II: 3 semester hours.

A course designed to teach health care professionals how to communicate proficiently with Spanish-speaking patients. Integrates thematically-related vocabulary, grammar, and culture with an emphasis on occupational communication. Credit by examination option is available for this class. Contact department for details. PREREQ: SPAN 2210 or equivalent. S

SPAN 2265 Accelerated Intermediate Spanish: 8 semester hours.

Concepts and content of SPAN 2201 and SPAN 2202 in one semester. Lab hours required. PREREQ: C- in SPAN 1102 or equivalent, and permission of instructor. D

SPAN 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SPAN 3300 Intensive Conversation: 3 semester hours.

Students who have not had an immersion experience but who have completed intermediate course work focus on developing conversational skills. Emphasis on real-life topics, tasks, and functions. Graded S/U. PREREQ: C- in SPAN 2202 and permission of instructor. D

SPAN 3301 Spanish Conversation and Composition I: 3 semester hours.

Intensive practice speaking, reading, and writing standard Spanish in the forms and styles common to the media, commerce, research and the arts. Conducted in Spanish. PREREQ: SPAN 2202 or equivalent. F, S

SPAN 3302 Spanish Conversation and Composition II: 3 semester hours.

Intensive practice speaking, reading, and writing standard Spanish in the forms and styles common to the media, commerce, research and the arts. Conducted in Spanish. PREREQ: SPAN 2202 or equivalent. F, S

SPAN 3303 Professional Spanish: 3 semester hours.

Intensive practice speaking, reading, and writing Spanish in business, medical, legal, or other professions. May be repeated for up to 6 credits with different content. PREREQ: SPAN 2202 or equivalent. D

SPAN 3305 Study Abroad: 1-6 semester hours.

Available only through study overseas. Development of upper-division level communicative competencies in speaking, listening, reading and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

SPAN 3341 Survey of Spanish Literature and Civilization: 3 semester hours.

Comprehensive overview of main currents of Peninsular cultural history and literature. Conducted in Spanish. PREREQ: SPAN 2202 or equivalent. F

SPAN 3342 Survey of Latin American Literature and Civilization: 3 semester hours.

Comprehensive overview of main currents of Latin American cultural history and literature. Conducted in Spanish. PREREQ: SPAN 2202 or equivalent. S

SPAN 3375 Topics in Culture and Literature: 3 semester hours.

Explore a topic of interest in Hispanic literature and culture through the study of a wide variety of literary and cultural texts at an introductory level. May be repeated 3 times with different content. PRE-or-COREQ: C- in CMLT 3360 or SPAN 3301 or SPAN 3302. F, S

SPAN 3381 Hispanic Current Affairs: 3 semester hours.

Study of contemporary Hispanic culture through an examination of current sociocultural issues in Spanish speaking countries. Conducted in Spanish. D

SPAN 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

SPAN 4400 Spanish Advanced Grammar: 3 semester hours.

Survey of selected grammar and composition topics on the advanced level. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4460 Spanish Interpretation and Translation I: 4 semester hours.

Theory and practice of interpretation, and/or translation and their application in the fields of literature, business, law, and medicine. Topics may vary. May be repeated for a total of 12 credits. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. F

SPAN 4461 Interpretation and Translation II: 4 semester hours.

Practical application of translation and/or interpretation in the fields of literature, business, law, and medicine. Topics may vary. May be repeated for a total of 8 credits. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. S

SPAN 4470 Readings in Spanish: 2 semester hours.

Reading, discussion, and preparation of reports on selected topics in Spanish literature. May be repeated for up to 4 credits with different content. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 and permission of instructor. D

SPAN 4475 Topics in Culture and Literature: 3 semester hours.

Explore a topic of interest in Hispanic literature and culture at a more advanced level through the study of a wide variety of literary and cultural texts. May be repeated 3 times with different content. PREREQ: C- in CMLT 3360 or SPAN 3301 or SPAN 3302. F, S

SPAN 4480 Independent Studies in Spanish: 3 semester hours.

A directed project, under the guidance of an instructor, emphasizing individual study or research according to the needs of the student. PREREQ: SPAN 3301 or SPAN 3302 and permission of instructor. D

SPAN 4490 Spanish Senior Seminar: 3 semester hours.

Advanced studies in selected topics from language, culture, literatures or methods of research. May be repeated for up to 6 credits with different content. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4493 Spanish Internship: 1-3 semester hours.

Internship coordinated by faculty providing significant exposure to the use of Spanish in a professional environment. May be repeated for up to 3 credits. Graded S/U. D

SPAN 4494 Topics in Language and Culture for the Professions I: 1-3 semester hours.

Enhance and supplement linguistic and cultural proficiency in a variety of professional contexts. May be repeated with different content for a maximum of 3 credits. Graded S/U. D

SPAN 4495 Topics in Language and Culture for the Professions II: 1-3 semester hours.

Enhance and supplement linguistic and cultural proficiency in a variety of professional contexts. May be repeated for a maximum of 3 credits with different content. Graded S/U. PREREQ: Permission of instructor. D

SPAN 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

Special Educ (SPED)

Courses**SPED 3312 Assistive Technology: 3 semester hours.**

Instructional and assistive technology, benefits they offer to individuals with various types of disabilities, how to evaluate children's technology needs, how to find new technologies using a variety of resources, and how to fund the purchase of technology for children with disabilities. Focus on how to use technology to adapt and accommodate for the needs of children with diverse learning needs. D

SPED 3330 The Exceptional Child: 3 semester hours.

Essential areas of exceptionality. Each area is studied on the dimensions of etiology, identification and labeling, characteristics, educational treatment, and prognosis for adjustment. Consideration also given toward structuring suitable educational programs applicable for each area and the basics of special education law. Includes 50-hour practicum. D

SPED 3340 Principles of Behavior Management: 3 semester hours.

Overview of the basic principles of behavior management for supporting students with disabilities in all school environments. Includes applied behavior analysis, positive behavioral instructional supports, functional behavior analysis, and behavior intervention plans. D

SPED 3350 Creating Inclusive Classrooms: 3 semester hours.

Curricula and methods for educating students with diverse abilities in K-12 classrooms. Characteristics of students with disabilities, students who are gifted and talented, students at risk for school failure, and students who are English language learners. Emphasizes inclusive lesson design, curricular adaptations, and collaborative teaching. PREREQ: Admission to Teacher Education Program. COREQ: EDUC 4408 or MUSC 3338. F, S

SPED 4417 Interdisciplinary Evaluation Team: 1 semester hour.

Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Equivalent to CSD 4417, DHS 4417, NURS 4417, PSYC 4417, and SOWK 4417. PREREQ: Permission of instructor. S

SPED 4423 Designing Instruction: 3 semester hours.

In-depth study of Universal Design for Learning as the framework for designing instruction that is accessible for all learners and supporting students with disabilities in inclusive classrooms. PREREQ: Admission to the Teacher Education Program. COREQS: EDUC 3311 and EDUC 4408. D

SPED 4424 Assessment Procedures in Special Education: 3 semester hours.

In-depth study of educational assessment procedures and techniques related to identifying and supporting students with disabilities. Emphasis on standardized assessment procedures, the eligibility determination process, making educational recommendations, and comprehensive evaluation report writing. PREREQ: Admission to the Teacher Education Program. D

SPED 4426 Assessment: Severe Disabilities: 3 semester hours.

Selection, administration, and interpretation of criterion-referenced tools employed with severely disabled students. Emphasizes functional approach to assessment and evaluation of behavioral and instructional domains. PREREQ: Admission to the Teacher Education Program. D

SPED 4429 Teaching Students with Significant and Multiple Disabilities: 3 semester hours.

In-depth study of the characteristics of students with significant and multiple disabilities and effects on social interactions, school performance, and achievement. Evidence-based practices for teaching and supporting students with significant and multiple disabilities. PREREQ: Admission to the Teacher Education Program.

SPED 4430 Practicum in Individualized Instruction: 1-3 semester hours.

Requires 50 clock hours per credit hour of field experience working one-on-one with a student with significant and/or multiple disabilities, developing and implementing individual instructional programs related to communication. PREREQ: Admission to the Teacher Education Program. D

SPED 4432 Explicit Instruction: 3 semester hours.

In-depth study of explicit instruction techniques to support student learning in all content areas. Includes development of original instruction and adaptation of general education curricula and progress monitoring of student learning. PREREQ: Admission to the Teacher Education Program. D

SPED 4433 Teaching Students with Emotional Behavior Disorders: 3 semester hours.

In-depth study of the characteristics of emotional behavior disorders and effects on social interactions, school performance, and achievement. Evidence-based practices for teaching and supporting students with Emotional Behavior Disorders. PREREQ: Admission to the Teacher Education Program. D

SPED 4434 Language and Communication Methods in Special Education: 3 semester hours.

Strategies for teaching expressive and receptive communication skills to students with disabilities. Focus on assistive and augmentative communication systems, high and low technology modalities, and visual supports. PREREQ: Admission to the Teacher Education Program. D

SPED 4435 Practicum in Small Group Instruction: 1-3 semester hours.

Requires 50 clock hours per credit hour of field experience working with students with disabilities, implementing small group instruction and monitoring student progress. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4446. D

SPED 4436 Math Methods for Children with Disabilities: 3 semester hours.

How to teach basic mathematical skills to children with disabilities and other at-risk learners. Emphasis on mathematical techniques having research supporting their effectiveness with children with disabilities. Prospective teachers are taught how to teach, monitor, assess, and remediate various mathematical skills. PREREQ: Admission to the Teacher Education Program. D

SPED 4437 Practicum in Large Group Instruction: 1-3 semester hours.

Requires 50 clock hours per credit hour of field experience working with students with disabilities in inclusive general classrooms. Emphasis on Universal Design for Learning, co-teaching, and collaboration between general and special education teachers. PREREQ: Admission to the Teacher Education Program. D

SPED 4438 Policies and Procedures in Special Education: 3 semester hours.

Consideration of legal background, current court rulings, professional responsibilities, and models for consultation and collaboration in a variety of educational settings. Includes the IEP process. PREREQ: Admission to the Teacher Education Program. D

SPED 4443 Teaching Students with Autism Spectrum Disorder: 3 semester hours.

In-depth study of the characteristics of autism spectrum disorder and effects on social interactions, school performance, and achievement. Evidence-based practices for teaching and supporting students with ASD. PREREQ: Admission to the Teacher Education Program. D

SPED 4446 Secondary Special Education: 3 semester hours.

In-depth study of assessment and evidence-based practices to support secondary transition for students with disabilities. Topics include functional academics, transition, independent living, social skills, professional-technical training, employment options, and accessing community resources. PREREQ: Admission to Teacher Education Program. COREQ: SPED 4435. D

SPED 4462 Seminar: Behavior Disorders: 1 semester hour.

Topical issues related to the education of children with behavior disorders in a variety of educational and therapeutic settings. PREREQ: Admission to the Teacher Education Program. D

SPED 4480 Seminar in Special Education: 1 semester hour.

Current topics in the field of special education presented by departmental faculty and guest lecturers. May be repeated for up to 2 credits. Graded S/U. F, S

SPED 4481 Advanced Issues in Behavior Disorders: 2 semester hours.

Educational organization, collaboration and consultation skills necessary to provide cooperation between the schools and other community agencies that provide integrated service for this exceptionality. PREREQ: Admission to the Teacher Education Program. D

SPED 4485 Independent Problems: 1-3 semester hours.

Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors in education. Experience in research composition. May be repeated. Graded S/U. PREREQ: Permission of instructor. D

SPED 4490 Consultation and Collaboration: 3 semester hours.

Survey of strategies for collaborating with families, paraprofessionals, general education teachers, and other special education and related service professionals to support students with disabilities. PREREQ: Admission to the Teacher Education Program. D

SPED 4491 Seminar: 1-3 semester hours.

Critical analysis of the literature in one or more areas of education. Limited enrollment. May be graded S/U. PREREQ: Admission to the Teacher Education Program. D

SPED 4495 Special Education: Student Teaching Internship: 6-12 semester hours.

Candidates assume instructional and management responsibilities in a supervised K-12 resource room or special education setting. Full semester for 14 credits; half semester 7 credits. Graded S/U. May be repeated. PREREQ: Special Education Methods Core and approved application. F, S

SPED 4498 Advanced Field Work: 1-3 semester hours.

Orientation, observation, planning and implementation of special education instruction in a special education setting in the public schools. PREREQ: Permission of instructor. D

Study Abroad (STUA)

Courses**STUA 2200 Study Abroad: 12-18 semester hours.**

Pre-arranged, planned courses of study at selected academic institutions outside of the United States. Student is responsible for resident credit arrangements with department(s) and the Office of International Programs and Services prior to departure. Prefix and course name will be replaced on Idaho State University transcript when study abroad transcript arrives. F, S, Su

STUA 3300 Study Abroad: 12-18 semester hours.

Pre-arranged, planned courses of study at selected academic institutions outside of the United States. Student is responsible for resident credit arrangements with department(s) and the Office of International Programs and Services prior to departure. Prefix and course name will be replaced on Idaho State University transcript when study abroad transcript arrives. F, S, Su

STUA 4400 Study Abroad: 12-18 semester hours.

Pre-arranged, planned courses of study at selected academic institutions outside of the United States. Student is responsible for resident credit arrangements with department(s) and the Office of International Programs and Services prior to departure. Prefix and course name will be replaced on Idaho State University transcript when study abroad transcript arrives. F, S, Su

Technical General Educ (TGE)

Courses**TGE 0100A Algebra I: 4 semester hours.**

Topics include linear equations, factoring, graphing, functions, and quadratic equations with emphasis on practical and technical problems. Equivalent to MATH 0025. Not eligible for academic credit. PREREQ: C- in MATH 0015, a Math ACT score of 12 or higher, an SAT score of 250 or higher, or 46 or higher on the Pre-Algebra section (MAPL 1). D

TGE 0100P Personal and Professional Effectiveness: 1-2 semester hours.

Career and learning theory-based course to establish students as flexible and innovative learners. Encourages the integration of positive adaptability through collaborative learning groups, values-focused decision making and activities-based interventions. Facilitates learning opportunities for students and networking opportunities after graduation. Solidifies a core set of transferable skills that are marketable across different career fields. PREREQ: Permission of instructor. D

TGE 0110 Supplemental Mathematics Lab: 1 semester hour.

Supplemental Math Lab for students enrolled in TGE math courses or COT programs of study. Supplemental Math Lab is co-required for students enrolled in TGE mathematics courses who fail to meet minimum COT requirements for mathematics. F, S

TGE 0135 Workplace Relations: 3 semester hours.

Workplace topics emphasizing internal and external customer service and including study and practice in effective interpersonal and communication skills, ethics, leadership, and teamwork. D

TGE 0158 Employment Strategies: 1-2 semester hours.

Comprehensive study and practice of job search activities, including company research, networking strategies, interviewing behavior, and writing the resume and business correspondence. Culminates in the preparation of a professional portfolio. The two-credit option provides students with extensive interviewing experience in a variety of settings. May be graded S/U. D

TGE 0159 Internship Strategies: 1 semester hour.

Comprehensive study and practice of internships, including company research, networking strategies, interviewing behavior, and completing applications and resumes. D

TGE 0199 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

TGE 1140 Survey of Applied Mathematics: 3 semester hours.

A survey of mathematical concepts and practices using a professional technical perspective focusing on applications of statistics, dimensional analysis, and right triangle trigonometry for vector addition. Satisfies Objective 3 of the General Education Requirements. PREREQ: MATH 0025 or TGE 0100A. D

TGE 1150 Applied Social Sciences in the Workplace: 3 semester hours.

Course focuses on how social sciences develop an understanding of human attitudes and behavior, as well as how attitudes and behaviors are influenced by leadership and the surrounding organizational and global context. Concepts of leadership, motivation, group dynamics, personality, and other behavioral aspects are explored through the lens of the social sciences and by developing the ability to apply such knowledge to actual business issues. Partially satisfies Objective 6 of the General Education Requirements. D

TGE 1257 Applied Ethics in Technology: 3 semester hours.

An introduction to the study of ethics and consideration of ethical issues in the fields of engineering, health, technical trades, and other contemporary settings that career-technical professionals may face. Topics include moral obligations and rights of society, employers, colleagues, and clients; cost-benefit risk analysis, safety, and informed consent; the ethics of whistle-blowing. Partially satisfies Objective 4 of the General Education Requirements. D

Theatre (THEA)

Courses

THEA 1101 Survey of Theatre: 3 semester hours.

An audience-oriented course in the creative processes and aesthetic principles which guide artists of the live theatre, film and television in the shaping and reflection of human value. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

THEA 1107 Theatre and Dance Showcase: 0 semester hours.

Attendance at weekly showcase hour. Enrollment in this course is required of all students in Theatre and Dance majors and minors. Graded S/U. F, S

THEA 1111 Stagecraft: 3 semester hours.

Shop and crew based course in building scenery, hanging lights, painting and properties. Lectures are based on construction theories and practical application. Required for majors. F

THEA 1118 Oral Interpretation of Literature: 3 semester hours.

Development of skills conveying an understanding of prose, poetry, and dramatic literature through the use of body, voice, and mind, thus enhancing one's communication and critical thinking skills. Students learn the art of communicating to an audience the various genres of literature through thorough analysis and interpretation of the selection. Satisfies Objective 7 of the General Education Requirements. S

THEA 1121 Script Analysis: 3 semester hours.

A introductory course designed to help students read and understand playscripts at a higher level. This course will help theatre students make better informed choices as actors, directors and designers. S

THEA 1131 Voice and Diction: 2 semester hours.

A performance-based course focusing on basic breathing, tone, diction, and other aspects of speech for stage. Students will demonstrate acquisition of these skills through lab performances. F

THEA 1191 Theatre Production: 1 semester hour.

Supervised work in theatre production. Enrollment must be approved by a theatre faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. F, S, Su

THEA 2201 Fundamentals of Theatre Design: 3 semester hours.

An introduction to theatrical design concentrating on the creative and collaborative process through scenic, lighting, costume and sound design. This course examines the various roles of the production team in achieving aesthetic concepts, understanding color theory and the elements of design. S

THEA 2211 Drafting: 3 semester hours.

Studio class which introduces computer aided drafting needs in the performing arts with a focused emphasis on scenic and lighting design. 2D and 3D elements and lighting previsualization will be discussed and produced. S

THEA 2214 Makeup: 2 semester hours.

Introduction to makeup techniques for the stage. Application of makeup and design concepts will be developed. F,S

THEA 2218 Stage Dialects: 2 semester hours.

A practical course in the production of commonly used stage dialects. Students study the international phonetic alphabet (IPA), and train in dialect development techniques. PREREQ: THEA 1131. D

THEA 2221 Stage Costume Construction: 3 semester hours.

Fundamental knowledge of fabrics, costume construction techniques, domestic and industrial machines. Laboratory component for practical experience on how to costume a stage production. S

THEA 2251 Fundamentals of Acting: 3 semester hours.

Introduction to acting theories and "action" based methodology. Skills demonstrated in areas of imagination, observation, improvisation, text analysis, and some monologue and scene work. Satisfies Objective 7 of the General Education Requirements. F, S, Su

THEA 2252 Intermediate Acting Scene Study: 3 semester hours.

A continuation of "action" based methodology through scene study in Dramatic Realism. Focus on character development, scoring analysis, and repeatable performance technique. PREREQ: THEA 2251 or permission of instructor. S

THEA 2299 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

THEA 3300 Theatre Movement Workshop: 2 semester hours.

Exploration of techniques of movement improvisation and the text/movement synthesis of physical theatre. Equivalent to DANC 3311. PREREQ: DANC 1110. D

THEA 3301 Theatre Voice Workshop: 1-2 semester hours.

Intensive vocal workshop for the actor, resulting in an understanding of phonetics using the International Phonetic Alphabet. The class will correct regional and other speech deficiencies, and aid the student in attaining a clear, articulate, and standardized American Speech for the stage. D

THEA 3302 Beginning Costume Materials Workshop: 1-2 semester hours.

Beginning costume materials, including millinery, jewelry, and mask making. D

THEA 3303 Advanced Costume Materials Workshop: 1-2 semester hours.

Experimentation with several types of fabric dye and fabric modification, such as stenciling, screen painting, batik methods, Devore, and piping. D

THEA 3304 Stage Management: 2 semester hours.

An introduction to the administrative aspects of play production with emphasis on stage management. Required for Theatre major. S

THEA 3311 Scene Design: 3 semester hours.

Studio class that introduces the methods and practices of scene design emphasizing the utilization of the elements of design: shape, line, color, form, and texture. Concept development, drafting techniques/requirements, color theory, perspective drawing, rendering, paint elevations and model building will be introduced. PREREQ: THEA 2211 F

THEA 3312 Stage Lighting Design: 3 semester hours.

A studio class that introduces the theory and practice of stage lighting design emphasizing the utilization of the elements of design and the controllable qualities of light. Includes concept development, drafting techniques/requirements, color theory, angles and systems, and basic programming of lighting consoles. PREREQ: THEA 1111 and THEA 2211. S

THEA 3330 Stage Combat: 2 semester hours.

Students learn to safely perform a wide variety of combat moves and styles for the stage. Focuses on creating the illusion of violence through specific actions, physical storytelling, and acting techniques. This course is extremely physical and incorporates both hand-to-hand combat and swordplay. PREREQ: Permission of instructor. S

THEA 3331 Materials and Methods for High School Speech Arts: 3 semester hours.

Required for teaching majors in speech and theatre. D

THEA 3390 Practicum Theatre Arts: 1-2 semester hours.

Performances, projects, workshops, and regional/community technical design assistance. Focus for the course is determined by the faculty of record. May be repeated for a maximum of 4 credits with different titles. PREREQ: Permission of instructor. D

THEA 3391 Theatre Production: 1 semester hour.

Supervised work in theatre production. Enrollment must be approved by a theatre faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. F, S, Su

THEA 3393 Independent Research Projects I: 1-3 semester hours.

Under the supervision of the Theatre faculty, intermediate students will undertake special research projects in theatre, focusing on themes, methods and/or problems encountered early in one's stage life. May be repeated once with different content for a maximum total of 6 credits. F, S

THEA 3399 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

THEA 4400 Theatre Background I: 3 semester hours.

A study of Western and world theatre from origins to the Renaissance. The course covers the development of dramatic forms, theatre architecture, and plays. AF

THEA 4401 Theatre Background II: 3 semester hours.

An overview of the aesthetic movements, innovators, architecture, theatrical practices and plays from the late Renaissance through Realism. AS

THEA 4402 Stage Costume History: 3 semester hours.

A survey of the history of western clothing from Ancient Egypt through the present. Study of the social context and motivations behind the evolution of clothing, silhouette, and costume components. AF

THEA 4403 Stage Costume Design: 3 semester hours.

Costume design for the theatre incorporating the influence of period, concept, and mood. Course work includes text analysis, research, drawing, painting, and collage. AS

THEA 4404 Special Topics in Acting: 3 semester hours.

Focuses on special acting challenges and techniques. Content varies with each semester offered. May be repeated for up to 6 credits with permission of the instructor. PREREQ: THEA 2251, THEA 2252, or permission of instructor. D

THEA 4405 Advanced Costume Construction: 3 semester hours.

A study in period corset, costume styles and construction techniques. Working with understructures to achieve specific time period silhouette. PREREQ: THEA 2221. AF

THEA 4406 Advanced Light Design: 3 semester hours.

Studio class emphasizing the study of upper level aesthetics of lighting design in the performing arts. Students work developing portfolio-quality designs, drafting packets and previsualizations for realized and non-realized projects mainly in theatre, opera and dance. PREREQ: THEA 1111, THEA 3311, and THEA 3312. D

THEA 4412 Scenic Painting: 3 semester hours.

A Studio class covering the techniques and skills necessary in the profession of scenic painting. Topics include: terminology, tools, faux finishes, abstract techniques, realistic reproduction, as well as washes and glazes. The course will require the purchase of individual scenic painting materials. AF

THEA 4414 Advanced Makeup: 2 semester hours.

Concentrated study of makeup for both stage and film. Techniques include wig styling, airbrush, face casting, prosthetic piecing and mask work. PREREQ: THEA 2214 or permission of instructor. AS

THEA 4419 20th Century Theatre: 3 semester hours.

An overview of the artistic movements, theatre visionaries and plays that marked what has been called "the century of innovation." OF

THEA 4420 American Theatre History: 3 semester hours.

American theatre and drama from the beginnings to mid-twentieth century. D

THEA 4421 Basic Pattern Drafting for Stage Costuming: 3 semester hours.

Understanding methods of flat-patterning and introduction of draping for the 20th and 21st Century costume silhouette. Basic stitching skill required. PREREQ: THEA 2221 or permission of instructor. AF

THEA 4422 Period Pattern Drafting for Stage Costuming: 3 semester hours.

Development of advanced pattern drafting methods to create historical costumes prior to the 20th Century. PREREQ: THEA 4421. AF

THEA 4426 Advanced Scene Design: 3 semester hours.

Studio class emphasizing the study of upper level aesthetics of scene design in the performing arts. Students develop portfolio-quality designs, drafting packets and 3D models for realized and non-realized projects mainly in theatre and opera. PREREQ: THEA 1111, THEA 3311, and THEA 3312. D

THEA 4431 Advanced Acting Shakespeare: 3 semester hours.

A continuation of the Stanislavsky based acting technique through monologue and scene study within Shakespeare's canon. Study of scansion, speech measures, use of imagery, focal points, spoken and unspoken subtext with the purpose of successfully orchestrating a Shakespearean text. PREREQ: THEA 2251, THEA 2252, or permission of instructor. AS

THEA 4432 Advanced Acting Audition Techniques: 3 semester hours.

This class will explore practical audition experience and professionalism for theatre performers; specifically focusing on monologue selection, preparation and performance. Additionally, headshot, resumes, cold readings, movement/dance calls, as well as basic audition /rehearsal etiquette and protocol will be covered. PREREQ: THEA 2251, THEA 2252, or permission of instructor. AF

THEA 4433 Advanced Acting in Musical Theatre: 3 semester hours.

Introduction to musical theatre styles and analysis of Broadway Composers and Lyricists. This course will focus on the Actor's approach to Musical Theatre Performance and audition techniques. Students will work on Musical theatre solos, and duets and begin creating a Musical Theatre Audition Binder. PREREQ: THEA 2251, THEA 2252, or permission of instructor. AF

THEA 4434 Advanced Acting Realism: 3 semester hours.

Experimentation and experience with dramatic literature, analysis and performance. Coursework includes stylistic work in Late 19th Century Realism and Late 19th and early 20th century-Naturalism. In this course the student applies and incorporates the skills learned in all departmental classes. PREREQ: THEA 2251, THEA 2252, or permission of instructor. AS

THEA 4455 Beginning Stage Direction: 3 semester hours.

Consideration of aesthetics of dramatic production and the relationship of basic techniques of stage direction. Includes the direction of scenes and one-act plays. PREREQ: THEA 1111, THEA 2251, THEA 2252, or permission of instructor. F

THEA 4456 Advanced Stage Direction: 3 semester hours.

Advanced theories in techniques of stage direction including consideration of period styles. The student will direct a series of advanced projects including scenes and a full-length play. PREREQ: THEA 4455 or permission of instructor. AS

THEA 4465 Musical Theatre History: 3 semester hours.

The history of American Musical Theatre from its 19th century roots to today. The course will cover the elements and major creators of musicals, as well as a series of landmark and representational works of musical theatre. AS

THEA 4470 Contemporary Theatre: 3 semester hours.

An overview of the contemporary theatre scene: producers, actors, designers, companies, plays and trends. Although primarily focused on the United States, the course also covers current international theatre. AS

THEA 4490 Practicum Theatre Arts II: 1-3 semester hours.

Recital projects for advanced students in various areas of theatre arts. May be repeated for a maximum of 4 credits with different titles. AS

THEA 4491 Independent Research Projects II: 1-3 semester hours.

Under the supervision of the Theatre faculty, the advanced student will undertake special research projects in theatre, focusing on themes, methods and/or problems encountered later in one's stage life. May be repeated once with different content for a maximum total of 6 credits. F, S

THEA 4499 Experimental Course: 1-6 semester hours.

The content of this course is not described in the catalog. Title and number of credits are -announced in the Class Schedule. Experimental courses may be offered no more than three times with the same title and content. May be repeated.

University Honors Prog (HONS)

Courses

HONS 1101 Honors Humanities I: 3 semester hours.

A writing-intensive interdisciplinary course examining relationships between the arts and letters from the Classical Age through the Enlightenment. Partially satisfies Objective 1 of the General Education Requirements. PREREQ: ENGL 1101 or ENGL 1101P with C- or better, or equivalent. F

HONS 1102 Honors Humanities II: 3 semester hours.

A writing-intensive interdisciplinary course examining relationships between the arts and letters from the nineteenth century to the present. Partially satisfies Objective 4 of the General Education Requirements. S

HONS 1103 Honors Social Science I: 3 semester hours.

A writing-intensive interdisciplinary course examining the relationships in the social sciences from the Classical Age through the Enlightenment. F

HONS 1104 Honors Social Science II: 3 semester hours.

A writing-intensive interdisciplinary course examining the relationships in the social sciences from the nineteenth century to the present. S

HONS 2220 Information Research Techniques: 1 semester hour.

Students develop strategies for recognizing, locating, and evaluating pertinent information and using it effectively in current and future research papers and/or in their field of endeavor. D

HONS 3391 Honors Seminar: 1 semester hour.

Exposes students to a range of critical and theoretical approaches within various disciplines in multiple seminars. Students formulate research problems and incorporate the results of their research into a seminar paper and/or oral presentation. May be repeated for up to 4 credits with different content. F, S

HONS 3393 Introduction to Honors Thesis: 1 semester hour.

Prepares junior-level students enrolled in the University Honors Program to develop, plan, and begin their Honors Thesis or Honors Project. Select a thesis or project topic, identify a thesis director, begin scholarship review for the project or thesis, and develop a timeline for completing the project or thesis. F

HONS 4493 Honors Senior Thesis or Project: 1-3 semester hours.

Supervised by a committee of at least two faculty members and approved by the University Honors Program Director. DEPT 4493H will be used when possible. May be repeated for up to 6 credits. PREREQ: Permission of Instructor and Honors Program Director. F, S

University Studies (US)

Courses

US 4490 Capstone Project: 1 semester hour.

Project to demonstrate the student's progress toward goals agreed to at start of program. May be repeated once for a total of two credits. Graded S/U. D

Unmanned Aerial Systems (UAS)

Courses

UAS 0100 Introduction to Unmanned Aerial Systems: 1 semester hour.

Introduction to Unmanned Aerial Systems. Introduces the essential elements of UAS history and operations. PREREQ: UAS program major and permission of instructor. F

UAS 0110 Applied Mathematics and Electronics for Unmanned Systems: 3 semester hours.

Mathematic principles and practices as they relate to the construction and operation of unmanned systems. Includes an introduction to basic electronics fundamentals. PREREQ: UAS program major. F

UAS 0115 Flight Theory: 3 semester hours.

Introduction to the principles and practices of heavier than air flight. Overview of aircraft components, control systems, and theory of operation. PREREQ: UAS program major. F

UAS 0120 Flight Laboratory I: 4 semester hours.

Experiments involving the construction, repair, and operations of light duty, remote unmanned aircraft. PREREQ: UAS program major. F

UAS 0150 Unmanned Systems Design: 2 semester hours.

Investigation of vehicle types, construction materials, tool implementation, and other design considerations for development of unmanned systems. PREREQ: UAS program major. S

UAS 0155 Flight Control and Subsystems: 4 semester hours.

Theory of operation of propulsion, power plant, control methods, radio frequency fundamentals, GPS L1 and L2, and Ground and Air Data Terminal equipment used in unmanned systems. PREREQ: UAS program major. S

UAS 0170 Flight Laboratory II: 4 semester hours.

Continuation of UAS 0151. Advanced experiments involving the construction, repair, and operations heavy lift and multirotor aircraft. PREREQ: UAS program major. S

UAS 0200 Advanced Electronics and Payload for Unmanned Systems: 4 semester hours.

Understanding and implementation of electronic and optical measurement devices, manipulators, and the operator control systems for unmanned systems platforms. PREREQ: UAS program major; UAS 0110 or RCET 0156B. F

UAS 0212 Beginning Surveying, GPS and Geo-Referencing: 3 semester hours.

Introduction to surveying theory and field work using equipment in the areas of measuring, leveling, total stations and GPS. Field projects include alignment stakeout, profile leveling, closed traverse, survey coordinate geometry applications and spatial geo-referencing. Equivalent to CET 0112 and GEMT 1112. PREREQ: UAS program major. F

UAS 0225 Flight Laboratory III: 5 semester hours.

Experiments involving the construction, repair, and operations of light duty, remote unmanned aircraft. PREREQ: UAS 0170. S

UAS 0228 Principles of GIS: 3 semester hours.

Study of GIS fundamentals, introduction to GPS, databases, and metadata. Practical application of ESRI and ArcView software. Build, edit, and query a GIS; basic spatial analysis. Requires competence in computer operating systems. Equivalent to CET 0228. PREREQ: UAS program major; UAS 0110 or CET 0120. F

UAS 0240 Basic Wiring and Avionics Installation: 5 semester hours.

Introduction to aircraft and unmanned systems wiring harnesses, soldering, and cable construction. The course will also cover basic functions and integration of the different components that comprise an avionics suite. PREREQ: UAS 0200. S

UAS 0250 Imagery Analysis: 3 semester hours.

This course will teach students imagery interpretation principles, give them an understanding of the different roles of imagery analysts in an operational environment. Students will receive hands-on operational experience through mission planning, simulation and collecting images. PREREQ: UAS program major. F

UAS 0255 Autopilot Theory: 3 semester hours.

Fundamentals of unmanned platform autopilot avionic circuitry, navigational sensors, communications, and telemetry systems. Introduction to automated flight software and mission planning. PREREQ: UAS program major; UAS 0200 or RCET 0154B. COREQ: UAS 0270. S

UAS 0270 Autopilot Laboratory: 5 semester hours.

Experiments involving integration, calibration, trouble shooting and repair of avionics circuitry and related devices. Flight plan development and implementation using automated flight software and mission planning. PREREQ: UAS program major; UAS 0200 or RCET 0156B. COREQ: UAS 0255. S

UAS 0282 Introduction to Rapid Prototyping: 2 semester hours.

Introduction to the software, tools, and techniques used in modern rapid prototyping processes. PREREQ: UAS program major. S

Welding (WELD)

Courses

WELD 0105 Welding: 1-4 semester hours.

Introduction to and practice of arc welding. Metals and various types of welds. F, S

WELD 0130 Safety and Leadership: 2 semester hours.

The student will identify lab organization and safety procedures, demonstrate applied leadership skills and abilities, demonstrate and identify hand tools and their proper usage. The student will also demonstrate and identify power tools and equipment including their proper usage and maintenance. PREREQ: Permission of instructor. F, S, D

WELD 0131 Welding Practice I: 12 semester hours.

Welding practice techniques for successful fillet and groove welds in all positions utilizing SMAW E7018, GMAW ER70S-6, and FCAW E71T-1 processes and filler metals. F, S

WELD 0131A Shielded Metal Arc Welding: 4 semester hours.

SMAW to include fillet and groove welds in all positions to the AWS standards. Successfully completing this course may lead to certification. PREREQ: Permission of instructor. F, S, D

WELD 0131B Gas Metal Arc Welding: 4 semester hours.

Fillet, groove, and open groove welding using the GMAW process and ER70S-6 filler metal combination. All welding and destructive testing will comply with AWS D1.1 Structural Steel Welding Code. PREREQ: Permission of Instructor. COREQ: WELD 0131A. F, S, D

WELD 0131C Flux Cored Arc Welding: 4 semester hours.

Fillet, groove, and open groove welding using FCAW and E71T-1 filler metal combination. All welding and destructive testing will comply with AWS D1.1 Structural Steel Welding Code. PREREQ: Permission of instructor. COREQ: WELD 0131A and WELD 0131B. F, S, D

WELD 0132 Welding Practice II: 12 semester hours.

Open groove welding practice to develop skills in preparation to weld pipe. Students will first become proficient on plate and progress into carbon steel pipe welding using E6010 and E7018 electrodes. PREREQ: WELD 0131. F, S

WELD 0140 Welding Theory: 2 semester hours.

This course consists of basic metallurgy, identification of metals and electrodes, theory of welding processes, identify proper usage of testing methods, welding gases, joint design and configuration, welding positions, welding currents and polarity. Welding qualifications and procedures will also be covered. F

WELD 0141 Mechanical Drawing: 2 semester hours.

Proper care and use of equipment, alphabet of lines, orthographic projections, dimensioning, section view drawing, freehand sketching of isometrics, pattern development and geometric construction. S

WELD 0142 Blueprint Reading for Welders: 2 semester hours.

The blueprint course will cover basic lines, views, dimensioning and structural shapes, abbreviation and weld symbols, working with structural and piping drawings, and bill of materials. S

WELD 0143 Shop Math I: 2 semester hours.

Basic study of trade math concentrating on basic arithmetic, common fractions, decimals, ratio, percentages, square root, and appropriate conversions as they apply to the welding trade. F

WELD 0159 Arc Welding: 1-8 semester hours.

Special course with emphasis on shop practice in the general areas of arc welding. Open for enrollment only with approval of the advisor, program coordinator and CTech counselor. (This is a special certificate option.) F, S

WELD 0231 Welding Practice III: 13 semester hours.

Low hydrogen, stainless steel, and pipe welding techniques in shop applications. PREREQ: WELD 0132. F

WELD 0232 Welding Practice IV: 13 semester hours.

GTAW process welding practice using both manual and automated orbital equipment, procedures, and techniques. Carbon and stainless steel pipe welding emphasized; includes high-purity and sanitary stainless welding. PREREQ: WELD 0231. S

WELD 0241 Metal Layout: 3 semester hours.

Introduction to geometric construction, principles of metal layout, special trade charts and tables. PREREQ: WELD 0141. F

WELD 0243 Shop Math II: 3 semester hours.

Continuation of WELD 0143, with introduction to specific trade formulas, basic algebra, proportions, right triangle math, trigonometry, special trade charts and tables. PREREQ: WELD 0143. S

WELD 0296 Independent Study: 1-8 semester hours.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

WELD 0298 Special Topics: 1-8 semester hours.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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