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About Idaho State University

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 http://www.isu.edu/acadaff/ISU/StrategicPlan2015-19.pdf.

Certificate programs of varying lengths, an Associate of Applied Science degree, a Bachelor of Applied Science degree, and a Bachelor of Applied Technology 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, Division of Health Sciences, and the Graduate School. Terminal degrees offered at Idaho State University include Master of Business Administration, Master of Fine Arts, Doctor of Philosophy, Doctor of Arts, Doctor of Education, Doctor of Nursing Practice and Doctor of Pharmacy.

Mission

The mission of Idaho State University is to advance scholarly and creative endeavors through the creation of new knowledge, cutting-edge research, innovative artistic pursuits and high-quality academic instruction; to use these achievements to enhance technical, undergraduate, graduate, and professional education, health care services, and other services provided to the people of Idaho and the nation; and to develop citizens who will learn from the past, think critically about the present, and provide leadership to enrich the future in a diverse, global society.

Idaho State University is a public research institution which serves a diverse population through its broad educational programming and basic, translational, and clinical research. Idaho State University serves and engages its communities with health care clinics and services, professional technical training, early college opportunities, and economic development activities. The university provides leadership in the health professions and related biomedical and pharmaceutical sciences, as well as serving the region and the nation through its environmental science and energy programs.

Core Themes:

Core Theme One: Learning and Discovery

Idaho State University promotes an environment that supports learning and discovery through the many synergies that can exist among teaching, learning, and scholarly activity.

Core Theme Two: Access and Opportunity

Idaho State University provides opportunities for students with a broad range of educational preparation and backgrounds to enter the university and climb the curricular ladder so that they may reach their intellectual potential and achieve their goals and objectives.

Core Theme Three: Leadership in the Health Sciences

Idaho State University values its established leadership in the health sciences with primary emphasis in the health professions. We offer a broad spectrum of undergraduate, graduate, and postgraduate training. We deliver health-related services and patient care throughout the state in our clinics and postgraduate residency training sites. We are committed to meeting the health professions workforce needs in Idaho. We support professional development, continuing education, and TeleHealth services. We are active in Health Sciences research.

Core Theme Four: Community Engagement and Impact

Idaho State University, including its outreach campuses and centers, is an integral component of the local communities, the state and the Inter-mountain region. It benefits the economic health, business development, environment, and culture in the communities it serves.

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 which 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)
- National Council for Accreditation of Teacher Education (NCATE)

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 on Education for Public Health (CEPH)
- Joint Review Committee on Education in Radiologic Technology (JRCERT)
- National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
- National Council for Accreditation of Teacher Education (NCATE)

College of Science and Engineering
- Accreditation Board for Engineering and Technology (ABET)

College of Technology
- Accreditation Board for Engineering and Technology (ABET)
- 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)
- National League for Nursing Accrediting Commission (NLNAC)

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 which 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: http://www.isu.edu/areg/ferpafacts.shtml

Alumni Association and Foundations
Alumni Association
http://www.isu.edu/alumni
mailto:alumni@isu.edu

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 association is governed by a board of directors and administered through the office of Alumni Relations, 554 S. 7th Avenue, Pocatello, in the H. F. Magnuson House.

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 officers and directors meet three times a year with the director of alumni relations, who is appointed by the university administration.

Idaho State University Bengal Foundation
The Idaho State University Bengal Foundation 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 Bengal Foundation was officially formed in September of 1976. It is governed by a board of directors and administered through the office of the Bengal Foundation located in Holt Arena. For information on becoming a member, contact The Bengal Foundation 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.

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, access to programs and services and employment. For additional information and specific contact information, see: http://www.isu.edu/aaction/
Colleges and Departments

Idaho State University is comprised of the following academic units:

**College of Arts and Letters** (p. 6)
**College of Business** (p. 6)
**College of Education** (p. 6)
**College of Science and Engineering** (p. 6)
**Division of Health Sciences** (p. 6)
**College of Technology** (p. 7)

**College of Arts and Letters**

**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)
- International Studies (http://www.isu.edu/intnlst)
- Languages and Literatures (http://www.isu.edu/foreign)

**School of Performing Arts** (http://www.isu.edu/sopa/index.shtml)
- Music (http://www.isu.edu/sopa/programs/music/index.shtml)
- Theatre (http://www.isu.edu/sopa/programs/theatre/index.shtml)
- Dance (http://www.isu.edu/sopa/programs/dance/index.shtml)

**Social and Behavioral Sciences**
- Anthropology (http://www.isu.edu/anthro)
- History (http://www.isu.edu/history)
- Military Science (ROTC) (http://military.isu.edu/rotc)
- Political Science (http://www.isu.edu/polsci)
- Psychology (http://www.isu.edu/psych)
- Sociology, Social Work, and Criminology (http://www.isu.edu/sociolog)

**College of Business**
- Accounting (http://www.isu.edu/cob/accountingindex.shtml)
- Economics (http://www.isu.edu/cob/economics.shtml)
- Finance (http://www.isu.edu/cob/finance.shtml)
- Informatics and Computer Science (http://www.isu.edu/cob/informaticscomputer.shtml)
- Management (http://www.isu.edu/cob/management.shtml)
- Marketing (http://www.isu.edu/cob/marketing.shtml)
- MBA (http://www.isu.edu/cob/mba.shtml)
- Information Assurance (http://niatec.info/ViewPage.aspx?id=0)

**College of Education**
- Teaching and Educational Studies (TES) (http://ed.isu.edu/es/index.shtml)
- Organizational Learning and Performance (OLP) (http://ed.isu.edu/olp/index.shtml)
- School Psychology and Educational Leadership (SPEL) (http://ed.isu.edu/spel/index.shtml)
- Sport Science & Physical Education (SSPE) (http://ed.isu.edu/sspe/index.shtml)

**College of Science and Engineering**
- Biological Sciences (http://www.isu.edu/bios)
- Chemistry (http://www.isu.edu/chem)
- Geosciences (http://www.isu.edu/geology)
- Informatics and Computer Science (http://www.isu.edu/cob/informaticscomputer.shtml)
- Mathematics (http://www.isu.edu/math)
- Physics (http://www.isu.edu/phys)
- Civil and Environmental Engineering (http://engr.isu.edu/CEEhome.shtml)
- Electrical Engineering (http://engr.isu.edu/EEhome.shtml)
- Mechanical Engineering (http://engr.isu.edu/MEhome.shtml)
- Nuclear Engineering and Health Physics (http://engr.isu.edu/NEhome.shtml)

**Division of Health Sciences**

**College of Pharmacy** (http://pharmacy.isu.edu)
- Doctor of Pharmacy (http://pharmacy.isu.edu/live/prospective/pharmd.html)
- Non-Traditional Doctor of Pharmacy (http://pharmacy.isu.edu/live/prospective/nont.html)
- Pharmaceutical and Social/Administrative Sciences (http://pharmacy.isu.edu/live/prospective/graduate.html)

**Kasiska School of Health Professions** (http://www.isu.edu/kasiska)
- Counseling (http://www.isu.edu/hpcounsl)
- Dietetics (http://www.isu.edu/hns/dietetics)
- Health Care Administration (http://isu.edu/hns/hca)
- Health Education (http://isu.edu/hns/he)
- Medical Laboratory Science (http://www.isu.edu/cls)
- Paramedic Science (http://www.isu.edu/kasiska/paramedic)
- Public Health (http://isu.edu/hns/mph)
- Radiographic Science (http://www.isu.edu/radsci)

**School of Nursing** (http://www.isu.edu/nursing)
- Bachelor of Science in Nursing (http://www.isu.edu/nursing/traditional.shtml)
- MSN in Education and Leadership (http://www.isu.edu/nursing/masters.shtml)
- Doctor of Nursing Practice (http://www.isu.edu/nursing/dnp.shtml)
- PhD in Nursing (http://www.isu.edu/nursing/phd.shtml)

**Office of Medical and Oral Health** (http://www.isu.edu/medicaloral/index.shtml)
- Dental Hygiene (http://www.isu.edu/dentalhy)
- Dental Sciences (http://www.isu.edu/dentsci)
• Family Medicine (http://www.fmed.isu.edu)
• Physician Assistant (http://www.isu.edu/PAprog)

**School of Rehabilitation and Communication Sciences** (http://www.isu.edu/rehabsciences/index.shtml)
• Communication Sciences and Disorders (http://www.isu.edu/spchpath)
• Physical and Occupational Therapy (http://www.isu.edu/dpot)

**Institute of Rural Health** (http://www.isu.edu/irh)

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**College of Technology**

• Aircraft Maintenance Technology (http://www.isu.edu/ctech/aircraftmaintenance)
• Automotive Collision Repair & Refinishing Technology (http://www.isu.edu/ctech/automotivecollision)
• Automotive Technology (http://www.isu.edu/autotech)
• Bachelor of Science Health Science (http://www.isu.edu/ctech/bs-health/index.shtml)
• Bachelor of Applied Science
• Business Technology (http://www.isu.edu/ctech/business_information)
• Civil Engineering Technology (http://www.isu.edu/ctech/civil-engineering)
• Computer Aided Design Drafting Technology (http://www.isu.edu/ctech/cadd)
• Computerized Machining Technology (http://www.isu.edu/ctech/computerized_machining)
• Cosmetology (http://www.isu.edu/ctech/cosmetology)
• Diesel/On-Site Power Generation Technology (http://www.isu.edu/ctech/diesel)
• Early Childhood Care and Education (http://www.isu.edu/ctech/childdevelopment)
• Energy Systems Electrical Engineering Technology (http://www.isu.edu/estec)
• Energy Systems Instrumentation Engineering Technology (http://www.isu.edu/estec)
• Energy Systems Mechanical Engineering Technology (http://www.isu.edu/estec)
• Energy Systems Nuclear Operations Technology (http://www.isu.edu/estec/nuclear.shtml)
• Geomatics Technology (http://www.isu.edu/ctech/geomatics)
• Health Information Technology (http://www.isu.edu/ctech/healthinfo)
• Information Technology Systems (http://www.isu.edu/ctech/its)
• Law Enforcement (http://www.isu.edu/ctech/lawenforcement)
• Massage Therapy (http://www.isu.edu/ctech/massagetherapy)
• Medical Assisting (http://www.isu.edu/ctech/medicalassisting)
• Paralegal Studies (http://www.isu.edu/ctech/paralegal)
• Physical Therapist Assistant (http://www.isu.edu/ctech/pta)
• Practical Nursing (http://www.isu.edu/ctech/pnur)
• Registered Nurse (http://www.isu.edu/ctech/registerednurse/index.shtml)
• Respiratory Therapy (http://www.isu.edu/ctech/respiratory)
• Robotics and Communications Systems Engineering Technology (http://isu.edu/ctech/robotics)
• Technical General Education (http://www.isu.edu/cotgened)
• Welding (http://www.isu.edu/ctech/welding)
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:

http://www.isu.edu/finserv/studentfs.shtml

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 Division of Health Sciences.

When students enrolled in for-credit classes withdraw from Idaho State University or make schedule changes that reduce their total fee obligation, refunds are made on the following basis:

General University fees paid without use of a fee reduction program:
1. Refunds are calculated and authorized by the Office of Finance and Administration. The drop/withdrawal date is the actual date the drop or withdrawal form is received by an authorized University office or automated system.
2. Refunds of registration charges for full-time fees, part-time credit hour fees, non-resident tuition, professional program fees, and departmental fees are calculated on the total amount of fees paid, using the first official day of the University semester or session as the starting date.
3. Federal refund provisions may supersede Idaho State University Refund Policy under certain conditions for federal financial aid recipients. The greater of (1) Idaho State University calculations or (2) Federal guidelines is refunded according to Federal refund requirements, when applicable.

Refunds

Academic and College of Technology Semester Classes
Before and during the first two weeks of classes: 100%
During the third week of classes: 50%
After the third week of classes: NO REFUNDS

College of Technology Sessions
Before and during the first week of classes: 100%
During the second week of classes: 50%
After the second week of classes: NO REFUNDS

For classes, seminars and workshops with nonstandard starting and ending dates, refund requests are reviewed on an exception basis. The starting and ending dates are those designated by the University Registrar.

This policy does not include the advance deposit required by the College of Technology or academic departments.

Nonrefundable Charges
1. State Board of Education-authorized reduced fee charges. (Examples include but are not limited to faculty/staff reduced fees, senior citizen reduced fees, education contract classes, etc.)
2. Late processing charges.
3. Any amounts paid to satisfy fees/charges due from previous terms.
4. Amounts paid for student malpractice insurance.
5. Student Health Insurance premiums are not refunded under this policy.

Please contact the Student Insurance Coordinator at (208) 282-2972 for Student Health Insurance refund provisions.

Refunds for Exceptional Circumstances

In specific cases, as listed below, a full refund of the registration fee, credit hour fee, non-resident tuition and professional fees will be granted following official withdrawal from school, 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 Office of Finance and Administration before the refund will be processed.

1. Military transfer of students who at the start of a semester are serving in the United States military in the Reserves, National Guard, or on active duty.
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.

Deductions from Refunds

The University reserves the right to deduct from refunds any amounts due the University. Refunds of actual fees for the term, less any remaining fee loan balances for the term, are used to offset financial aid awarded as prioritized below:

2. Agency authorizations for payment of actual fees.
3. University authorizations specifically for the payment of fees (i.e., graduate teaching assistant, athletics, etc.)
4. Miscellaneous outstanding balances due the University.
5. University loan programs.
6. University and donor scholarship programs.

Any balance is refunded to the student.

Payment of Refund

The student has the option of receiving a refund via check or e-refund. Refund checks or e-refunds are processed as soon as the student drops a class.

Registration Refund Appeals

Contact the Office of Finance and Administration for information on the University registration fee refund appeal process. A Tuition and Fees Refund Appeals form can be found at isu.edu/finserv/refundinfo.shtml under How to Appeal for Tuition Refund.

Delinquent Accounts

The Office of Finance and Administration may, without further notice, cancel current registration, withhold academic credit, place a hold on transcripts, or block future registration for any student with a delinquent account or unsatisfactory financial relationship with that office, provided the campus department in which the hold originated has attempted to notify the student. This regulation may be invoked at the discretion of the Vice President for Financial
Services in cases of disregard in the settlement of returned checks, registration fees due, residence hall damage, library fines, telephone toll charges, overdue notes, traffic fines, room and/or board charges, apartment rental charges, etc.

**Dishonored Check Policy**

A charge of $20 is assessed each time a check is returned; this amount is charged to the student’s account and s/he is so notified. If the check is not cleared within ten days, a second notice is sent and a hold placed on his/her records.

Any check tendered in payment of registration fees and subsequently returned by the bank will result in automatic postponement of the student’s registration.

In the case of a check tendered in payment for room and board and subsequently returned by the bank, the student is notified immediately and allowed not more than five days for the check to clear. If not cleared within that time, the student’s meal ticket and/or room reservation is canceled.
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)
Director, 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

Federal Supplemental Educational Opportunity Grants (SEOG)

TEACH Grants
Financial Aid Office, Stop 8077
Room 337, Museum Building
(208) 282-2756

Loans

Federal Ford Direct Student Loans (subsidized and unsubsidized)

Federal Perkins Loans

Federal Parent Loans for Undergraduate Students

Federal Graduate PLUS Loans
Financial Aid Office, Stop 8077
Room 337, Museum Building
(208) 282-2756

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
(208) 282-3315

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

Need-Based
Financial Aid Office, Stop 8077
Room 337, Museum Building
(208) 282-2756

Scholarships

Academic Students
Scholarship Office, Stop 8391
Room 327, Museum Building
(208) 282-3315
Academic Department chairpersons

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

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

Related to Major Course of Study

• College/School Scholarship Committee
• Department Chair
• Scholarship Office, Stop 8391
Room 327, Museum Building
(208) 282-3315

Service Awards

ASISU (Senate, Student Activities Board, Bengal)
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 government student assistance programs which are managed by the Financial Aid and Scholarship Office.

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

- Federal College Work Study
- Federal Perkins Loans
- Need-based Nonresident Waivers
- Federal TEACH grants
- 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). 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 after filing tax forms for the applicable 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 policy; 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 and TEACH 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 use the Financial Aid and Scholarship Web page, http://www.isu.edu/finaid/.
Student Services

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Affirmative Action/Equal Opportunity & Diversity (p. 12)
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Academic Programs

Director and Professor: Flowers
Senior Lecturer: Akersten

Rendezvous Building, Room 323
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
(208) 282-3933
http://www.isu.edu/success/
ssc@isu.edu

College Learning Strategies

College Learning Strategies' courses (ACAD prefix) are designed to help students maximize their academic success at Idaho State University. These courses are highly recommended for both traditional and non-traditional students in all majors and at all class levels. The intent of these courses is to provide a foundation for learning and academic success.

College Learning Strategies' courses span the continuum of learning for students throughout their academic careers. For first year students, some of the classes provide a foundation for their academic experience such as orientation to the university environment and study skills. For upper level students, some of the classes assist in the learning process for a broad range of classes such as refining efficiency in reading. In all cases, the material offered in ACAD 1110 courses is available through individual conferences and workshops.

First Year Seminar (FYS)

The First Year Seminar course (ACAD 1102 ) assists first year students with their transition into the university. Students interact closely with instructors and participate in collaborative learning activities and exercises. Courses are co-instructed by a campus faculty or staff member and peer instructors. First Year Seminar is highly recommended for all first year students.

English for Speakers of Other Languages (ESOL)

The English for Speakers of Other Languages (ESOL) Program supports undergraduate and graduate students enrolled in academic and professional courses at Idaho State University. The program offers a wide variety of individual tutoring, as well as workshops and courses in idioms, special vocabularies, lecture comprehension, American culture, pronunciation, grammar, rhetorical styles and skills for conversation and discussion. There are also support services for international teaching assistants, an online tutorial for off-campus needs, and faculty workshops for responding to ESOL issues.

Affirmative Action/Equal Opportunity & Diversity

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

Idaho State University strives to create an environment where all individuals feel welcome and safe. Each member of the university community shares the responsibility of creating such an environment.

The university is committed to creating and maintaining a learning environment that is free of discrimination and harassment and in which every student is treated with dignity and respect. Accordingly, the university prohibits, to the extent permitted by applicable law, 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 Affirmative Action/Equal Opportunity & Diversity located in the Rendezvous Building, Suite 157, (208) 282-3964.

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.
Athletics Department

Holt Arena
http://www.isubengals.com/

The Athletic Department 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. In addition, Idaho State University has extensive participation in a wide variety of club sports.

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 Director of Athletic Compliance.

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/stuhlth/pharmacy.shtml

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. A valid Bengal ID card is required to obtain services.

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; 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

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

Stretching from your entry into the university on through graduation, the Career Center’s continuum of services will meet your career needs.

The Career Center offers a career and life planning course (COUN 1150), online career information and guidance systems, career counseling, and career testing to learn more about majors and occupations that fit with your personality and interests. We can assist you with internship opportunities, resumes and cover letters, interviewing, on-campus recruiting, graduate school preparation, and other job search strategies. We also offer job listings which include full-time opportunities to part-time and temporary positions. Throughout the year, several different career-related fairs are offered to help students find a broad range of positions and career information.

The Career Center primarily serves Idaho State University students and alumni, but also extends services to community members. Call us to see how we can help you meet your career needs.

Central Academic Advising

JoAnn Hertz, Director

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

Central Academic Advising is a service designed to assist first-year and undecided students in making academic decisions. Central Academic Advising provides information about campus resources, guidance in developing course schedules and degree plans, clarification of campus policies and procedures, and support in developing effective strategies for academic success.

Advisors also serve as a general resource for all Idaho State University students and faculty. Any student is welcome to contact Central Academic Advising for advising or referral. If students are unsure about whether an advisor has been assigned to them, they may contact Central Academic Advising for information.

Mandatory Advising

The Mandatory Advising program is required for academic degree seeking freshman students for the first two semesters of attendance at Idaho State University and for transfer students for the first semester of attendance. Students subject to mandatory advising must complete the Fundamentals of Advising and Registration (FAR) sessions that are coordinated by Central Academic Advising. Freshmen may contact any CAA office (http://www.isu.edu/advising/contact.shtml) to schedule a FAR session. The two freshman FAR sessions are available online at http://isu.edu/advising/nosearch/first_mad/; http://isu.edu/advising/nosearch/second_mad/. The transfer FAR session is only available online at http://isu.edu/advising/nosearch/transfer_mad/.

Mandatory Advising at Idaho State University is not intended to replace college or faculty advising.

C. W. HOG

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

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, clay studio, and a darkroom. Other areas are set up for sewing, mat cutting for photos, dry mounting, paper cutting, and bicycle repair. 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 Hensley, Acting 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 in 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 assist ethnic and international students and organizations. 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. The Center provides orientation sessions to American minority students to inform them about the University culture and expectations. The Center also houses audio, video, and printed material, both historical and current, related to diversity and multicultural issues.

Early Learning Center (ELC)
Kerry Williamson, Director
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
1784 Science Center Drive
Idaho Falls, 83402
(208) 282-7868
http://www.isu.edu/earlylc/

The Early Learning Center (ELC) has child care centers in Pocatello and Idaho Falls; both sites are IdahoSTARS STAR-rated facilities. 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 Idaho State University students, staff, faculty and alumni. In Idaho Falls, the privilege is extended to the same members of the University of Idaho community. Each center offers a developmentally appropriate curriculum, and 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.

International Programs and Services
Museum Building, Room 319
921 S 8th Ave Stop 8270
(208) 282-2941
http://www.isu.edu/earlylsr/
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)**

Graveley Hall, North
921 S 8th Ave Stop 8141
Pocatello, ID 83209-8141
(208) 282-2805
http://www.isu.edu/andersoncenter/

The Janet C. Anderson Gender Resource Center (GRC) provides gender related education and programming at Idaho State University. We host film screenings, panels, art shows, lunchtime talks, focus groups, and the annual Gender and Sexuality in Everyday Life Conference. We also provide training for the ISU Green Dot bystander intervention program. See the schedule of events on our website for further details.

**Programs:** 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 trainers that 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:** The GRC and the ISU College of Arts & Letters hold the annual Gender & Sexuality in Everyday Life Conference each spring. The Gender and Sexuality in Everyday Life Conference focuses on how ideas and stereotypes concerning gender and sexuality roles shape and influence various aspects of our daily lives. By acknowledging these roles, we can begin to break down some of the barriers they constitute and move towards awareness and open dialogue. This year the conference will be presenting a great combination of local ISU faculty and student presenters, as well as guests from all over the country and internationally. The Gender and Sexuality in Everyday Life Conference offers a unique opportunity for ISU students of all levels, as well as interested community members, to experience a professional conference without having to travel or pay expensive registration fees.

**Resources:** The GRC library holds books, magazines, and pamphlets on a variety of gender-related topics. Materials may be borrowed for up to a month.

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 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.

**Native American Student Services**

Idaho State University
Native American Student Services
921 S. 8th Avenue, Stop 8010
Pocatello, Idaho 83209-8010
http://www.isu.edu/drc/naas/index.shtml
naas@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.

**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, backcountry 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?50320), 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

http://www.isu.edu/union/scheduling/

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 Leadership and Involvement  
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 movies, dances, homecoming, musical entertainment, 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 (p. 13).  
(208) 282-2380

**Student Organizations & Greek Life**

Involvement Center  
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 one hundred fifty 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 recruitments 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, Delta Sigma Phi, Kappa Sigma, and Sigma Sigma Sigma.

For further information, refer to the Student Organizations Directory or the Student Handbook, or contact the Student Organizations Office.

**Student Success Center**

Executive Director: Cynthia D. Hill, Ph.D.  
Associate Director: James Yizar, Jr., Ed.D.

**Pocatello:**  
Rendezvous Building, Room 323  
(208) 282-3933  
http://www.isu.edu/success/  
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 coordinates a variety of resources for students. Academic Programs provides a foundation for learning and academic success, Central Academic Advising assists students in making academic decisions, and Disability Services assists students with documented disabilities. Native American Student Services advocates for and guides Native American students, TRiO Student Services prepares eligible students to enroll in and successfully complete university programs, and University Tutoring supports students enrolled in academic classes. The University Honors Program offers an enriched learning experience in an academic learning community.

**Students’ Community Service Center (SCSC)**

Student Leadership and Involvement Center  
3rd Floor, Pond Student Union  
921 S 8th Ave Stop 8170  
(208) 282-4201

The Students’ Community Service Center (SCSC) organizes students, faculty, and staff to participate in meaningful community service on campus and in Southeast Idaho. The Center operates six core programs: Into the Streets, Bonner Leaders Program, Idaho State University Recycling, Alternative Spring Break, Student Action Volunteers for the Environment (S.A.V.E.), and the Youth Mentoring Program. SCSC also serves as a campus contact for community agencies seeking volunteers for short- or long-term positions.

**TRiO Student Services**

Sari Byerly, Director  
Museum Building, Room 434
TRiO Student Services is a multifaceted, federally funded student assistance program geared to preparing eligible students to enroll in and graduate from post-secondary institutions. 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 be low-income OR first-generation college students OR have a documented physical, psychological, or learning disability.
- Students must have a need for program services.

Note: TRiO eligibility criteria will vary with individual programs.

Once students have been determined eligible, they may be provided a diversity of academic support services through one of the three TRiO programs including Educational Talent Search, Upward Bound, and Student Support Services.

PRE-COLLEGE PROGRAMS

Educational Talent Search (ETS) works with eligible program participants who are in the 9th through 12th grades and have potential to be successful in college. Students receive tutoring, assistance with study skills, organizational skills, test-taking strategies, and career exploration. They also attend field trips and cultural activities, and participate in community service projects and technology workshops. During their senior year they are also provided help with admission/financial aid forms and obtaining other information that will prepare them to enter the college of their choice. Participating target high schools are: Aberdeen, American Falls, Blackfoot, Bonneville, Burley, Century, Highland, Idaho Falls, Jerome, Minico, Pocatello, Shoshone-Bannock, Snake River, and Twin Falls High School.

Upward Bound (UB) assists eligible 9th through 12th grade students in preparing for the challenges of a post-secondary education. The program consists of an intense academic summer component and a follow-up component during the school year. The summer program is held on the Idaho State University campus. For eight weeks students are taught by certified high school teachers and receive credit toward high school graduation in most of the traditional academic disciplines including math, English, science, and foreign languages. Study skills, test-taking strategies, and career exploration are incorporated into the summer curriculum and additional academic support services such as tutoring are provided by tutors/mentors. The academic year follow-up program is geared to supporting the curricular and academic support activities students experience during the summer. Regular tutoring and other academic enhancement services are provided to students throughout the school year. Participating target high schools are: Aberdeen, American Falls, Blackfoot, Bonneville, Burley, Century, Highland, Idaho Falls, Jerome, Minico, Pocatello, Shoshone-Bannock, Snake River, and Twin Falls High School.

POST-SECONDARY PROGRAM

Student Support Services (SSS) is a post-secondary retention-oriented program that offers academic support services to eligible students. Advisors provide students assistance with course selection and scheduling along with personal and financial counseling. Other important services available to students include tutoring and supplemental instruction. Tutors and Supplemental Instruction Leaders are model students who have excelled in their academic disciplines. The SSS program’s goal is to help students be successful, both academically and socially, while attending Idaho State University, by providing strong support to help students achieve their educational and career objectives leading to their completion of a baccalaureate degree and pursuit of graduate school educational opportunities.

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 can usually counsel students with concerns such as anxiety, depression, low self esteem, lack of motivation, eating problems, stress, grief, and interpersonal relations including couple and family problems.

Personal counseling is free and confidentiality is maintained within the ethical and legal guidelines of the American Counseling Association, the American Psychological Association and the State of Idaho. Staff are licensed by the State of Idaho as professional counselors or psychologists. Masters’ and Doctoral trainees (interns) are under the direct supervision of licensed staff.

Consultation and Crisis Intervention Services

Whenever any member 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

University Counseling and Testing Service 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

University Health Center
921 S. 8th Ave. Stop 8311
(208) 282-2330
http://www.isu.edu/stuhlth/

All students are eligible to see a care provided at the University Health Center at no charge for the basic office visit. Almost all insurances are accepted for other charges.

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.

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

University Honors Program

Sherri Dienstfrey-Swanson, Ph.D., Director
Rendezvous Building, Room 323
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
Office: (208) 282-3662
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. To provide a challenging and imaginative curriculum;
2. To prepare students for a post-graduate education through seminars, individual research, and one-on-one interaction with faculty; and
3. To enrich the life of all honors students by fostering a spirit of ongoing inquiry and a love of learning.

The University Honors Program offers interdisciplinary, theme-driven course sequences in the humanities, social sciences, and natural sciences. They are designed for students who are motivated to develop their critical and creative thinking in a more personal atmosphere than may be expected in normal lower division courses. These courses are offered in small classes (25 maximum enrollment) by interested 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 www.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

Haydie LeCorbeiller, D.A., Director
Rendezvous Building, Room 323
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
(208) 282-4823
http://www.isu.edu/success/ssc@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). A separate tutoring system, based in the Roy F. Christensen Building, focuses on the tutoring needs of College of Technology students.

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”

Todd D. Johnson, M.A., Director
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 (http://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 student’s 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.

Veterans’ Benefits

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

ISU Veteran Certifying Official
Office of the Registrar
921 S 8th Ave Stop 8196
Pocatello, ID 83209-8196
(208) 282-2676
vco@isu.edu
http://www.isu.edu/areg/veterans/

Wellness Center

(208) 282-2117
http://www.isu.edu/wellness/

Students at Idaho State University 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 quality health promotion and education programs and public service to all students at Idaho State University. We are committed to providing opportunities that facilitate and support personal growth in the multiple dimensions of health: physical, mental, emotional, spiritual, social, and environmental. A wide variety of aerobic classes is offered: aerobics, aquacize, step aerobics, yoga, cardiotone, and toning. All classes are held at Idaho State University Reed Gym.

The Wellness Center also offers fitness assessments to Idaho State University students. This includes cardiovascular endurance, body composition, blood pressure, flexibility, abdominal strength and health risk appraisal. Other services provided by the Wellness Center for students include personal training, nutrition counseling, smoking cessation, and CPR/First Aid Training. These are by appointment.

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

Holt Arena
http://www.isubengals.com/

The Athletic Department 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. In addition, Idaho State University has extensive participation in a wide variety of club sports.

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 Director of Athletic Compliance.

Intercollegiate Athletics-Directors and Coaches

Tingey, Jeffrey, Athletic Director
Alexander, Geoff, Assistant Coach, Men's Basketball
Beall, Stephanie, Assistant Coach, Soccer
Campbell, Robert M., Head Coach for Strength & Conditioning
Collins, Jay, Assistant Coach/Recruiting Coordinator, Men’s Basketball
Cooper, Roger, Assistant Coach/Co-Defensive Coordinator, Football
Cross, Sheldon, Assistant Coach, Football
Evans, William, Head Coach, Men’s Basketball
Fifita, Steven, Assistant Coach, Football
Finch, Daryl, Assistant Athletic Trainer
Fisher, Keisha, Assistant Coach, Volleyball
Franks, Stanley, Assistant Coach, Football
Geohegan, Rachel, Assistant Athletic Trainer
Gibson, Allison, R., Head Coach, Women’s Soccer
Goeltz, Robert, Head Coach, Tennis
Graziano, Nancy, Associate Athletic Director for Student Support Services and Senior Woman Administrator
Henriksen, Cecilie, Assistant Coach, Soccer
Hooper, Kellie, Head Coach, Golf
Janssen, Brian, Head Coach, Cross Country
Johnson, Ryan, Assistant Coach, Women's Basketball
Kramer, James, Assistant Athletic Director for Financial Services
Kramer, Michael, Head Coach, Football
Lacey, Michael, Athletic Academic Advisor
Miller, Drew, Assistant Coach, Football
Moore, Jessica, Assistant Coach, Softball
Nielsen, Dave, Head Coach, Track and Field
Obray, Gregory R, Assistant Athletic Trainer
Payne, Brandon, Athletic Sports Trainer
Pleasant, Phillip, Academic Advisor
Robertson, Holly, Assistant Coach, Women's Basketball
Schaack, Steve, Assistant Athletic Director for Media Relations
Sobolewski, Seton, Head Coach, Women’s Basketball
Steiner, Tom, Assistant Athletic Director for Development and Major Gifts
Steuart, Matthew C., Assistant Athletic Director for Academics
Stucki, Misty D., Head Coach, Cheerleading
Stutzman, Craig, Assistant Coach, Football
Teichert, Chad, Head Coach, Volleyball
Toone, Spencer, Co-Defensive Coordinator, Football
Troxell, Matthew, Assistant Coach/Recruiting Coordinator, Football
Trujillo, Michael, Assistant Coach, Women’s Basketball
Videbeck, Andrea, Assistant Coach, Women's Basketball
Walker, Zachary, Athletic Compliance
Walsh, Timothy, Assistant Coach, Men’s Basketball
Ward, Andy, Assistant Coach, Men’s Basketball
Wotowe, Jodi, Head Athletic Trainer
Wright, Julia, Head Coach, Softball
Yizar, James ‘Bird’, Assistant Athletic Director for Student Success
# Academic Calendar

## Fall Semester 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 7-10</td>
<td>Fall 2015 Early Registration - Freshmen</td>
</tr>
<tr>
<td>April 13</td>
<td>Class level registration begins for Fall 2015</td>
</tr>
<tr>
<td>August 24</td>
<td>Fall classes begin</td>
</tr>
<tr>
<td>August 28</td>
<td>Last day to add/drop early 8-week courses</td>
</tr>
<tr>
<td>September 4</td>
<td>Last day to register, add/drop, change section, or audit full semester courses</td>
</tr>
<tr>
<td>September 4</td>
<td>Last day to submit Idaho Residency Determination Worksheet with documentation to Office of the Registrar to declare Idaho residency</td>
</tr>
<tr>
<td>September 7</td>
<td>Labor Day holiday (no classes)</td>
</tr>
<tr>
<td>September 25</td>
<td>Last day to WITHDRAW from early 8-week courses</td>
</tr>
<tr>
<td>October 5</td>
<td>Early 8-week final grading/Full term midterm grading opens</td>
</tr>
<tr>
<td>October 12-16</td>
<td>Mid-term week</td>
</tr>
<tr>
<td>October 16</td>
<td>Seniors: Last day to file application for December graduation</td>
</tr>
<tr>
<td>October 19</td>
<td>Late 8-week courses begin</td>
</tr>
<tr>
<td>October 20</td>
<td>Early 8-week final grading/Full term midterm grading closes at 5:00 pm</td>
</tr>
<tr>
<td>October 23</td>
<td>Last day to add/drop late 8-week courses</td>
</tr>
<tr>
<td>October 26</td>
<td>Spring 2016 Class Schedule viewable online (subject to change)</td>
</tr>
<tr>
<td>October 30</td>
<td>Last day to WITHDRAW from full semester courses</td>
</tr>
<tr>
<td>November 9</td>
<td>Class level registration begins for Spring 2016</td>
</tr>
<tr>
<td>November 20</td>
<td>Last day to WITHDRAW from late 8-week courses</td>
</tr>
<tr>
<td>November 23-27</td>
<td>Fall recess (no classes -- Thanksgiving Break)</td>
</tr>
<tr>
<td>December 7</td>
<td>Late 8-week and full semester final grading opens</td>
</tr>
<tr>
<td>December 7-11</td>
<td>Closed week</td>
</tr>
<tr>
<td>December 14</td>
<td>Summer 2016 Class Schedule viewable online (subject to change)</td>
</tr>
<tr>
<td>December 14-18</td>
<td>FINAL Examinations</td>
</tr>
<tr>
<td>December 22</td>
<td>Late 8-week and full semester final grading closes at 5:00 pm</td>
</tr>
</tbody>
</table>

## Spring Semester 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 9</td>
<td>Spring 2016 Class Level Registration Begins</td>
</tr>
<tr>
<td>January 11</td>
<td>Spring classes begin</td>
</tr>
<tr>
<td>January 15</td>
<td>Last day to add/drop early 8-week courses</td>
</tr>
<tr>
<td>January 18</td>
<td>Martin Luther King/Idaho Human Rights holiday (no classes)</td>
</tr>
<tr>
<td>January 25</td>
<td>Last day to register, add/drop, change section, or audit full semester courses</td>
</tr>
<tr>
<td>January 25</td>
<td>Last day to submit Idaho Residency Determination Worksheet with documentation to Office of the Registrar to declare Idaho residency</td>
</tr>
<tr>
<td>February 8</td>
<td>Summer registration begins for ALL class levels (subject to change)</td>
</tr>
<tr>
<td>February 12</td>
<td>Last day to WITHDRAW from early 8-week courses</td>
</tr>
<tr>
<td>February 15</td>
<td>Presidents’ Day holiday (no classes)</td>
</tr>
<tr>
<td>February 22</td>
<td>Early 8-week final/Full term midterm grading opens</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 4</td>
<td>Mid-term week</td>
</tr>
<tr>
<td>March 7</td>
<td>Seniors: Last day to file application for May graduation</td>
</tr>
<tr>
<td>March 8</td>
<td>Early 8-week grading/Full term midterm grading closes at 5:00 pm</td>
</tr>
<tr>
<td>March 11</td>
<td>Last day to add/drop late 8-week courses</td>
</tr>
<tr>
<td>March 18</td>
<td>Last day to WITHDRAW from full semester courses</td>
</tr>
<tr>
<td>March 21-25</td>
<td>Spring Break (no classes)</td>
</tr>
<tr>
<td>March 28</td>
<td>Fall 2016 Class Schedule viewable online (subject to change)</td>
</tr>
<tr>
<td>April 5-8</td>
<td>Fall 2016 Early Registration - Freshmen</td>
</tr>
<tr>
<td>April 8</td>
<td>Last day to WITHDRAW from late 8-week courses</td>
</tr>
<tr>
<td>April 11</td>
<td>Class level registration begins for Fall 2016 (subject to change)</td>
</tr>
<tr>
<td>April 25</td>
<td>Late 8-week and full semester final grading opens</td>
</tr>
<tr>
<td>April 25-29</td>
<td>Closed week</td>
</tr>
<tr>
<td>May 2-6</td>
<td>FINAL Examinations</td>
</tr>
<tr>
<td>May 6</td>
<td>Seniors: Last day to file application for August graduation</td>
</tr>
<tr>
<td>May 7</td>
<td>Commencement (December &amp; May graduates)</td>
</tr>
<tr>
<td>May 10</td>
<td>Late 8-week and full semester final grading closes at 5:00 pm</td>
</tr>
</tbody>
</table>

## Summer Semester 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 8</td>
<td>Summer 2016 Registration Begins</td>
</tr>
<tr>
<td>May 16</td>
<td>Early-4, Early-6, Early-8 and full term courses start</td>
</tr>
<tr>
<td>May 20</td>
<td>Last day to add/drop Early-4, Early-6, Early-8 classes</td>
</tr>
<tr>
<td>May 27</td>
<td>Last day to add/drop Full term classes</td>
</tr>
<tr>
<td>May 27</td>
<td>Last day to WITHDRAW from Early-4, Early-6 and Early-8 classes</td>
</tr>
<tr>
<td>May 27</td>
<td>Early-4 final grading open</td>
</tr>
<tr>
<td>May 30</td>
<td>Memorial Day (No classes)</td>
</tr>
<tr>
<td>June 13</td>
<td>Middle 4 and Late 8 courses start</td>
</tr>
<tr>
<td>June 13</td>
<td>Early-6 final grading open</td>
</tr>
<tr>
<td>June 14</td>
<td>Early-4 final grading closes at 4:30 pm</td>
</tr>
<tr>
<td>June 17</td>
<td>Last day to add/drop Middle 4 and Late 8 classes</td>
</tr>
<tr>
<td>June 24</td>
<td>Last day to WITHDRAW from Middle 4, Late 8 and Full term courses</td>
</tr>
<tr>
<td>June 27</td>
<td>Late 6 classes start</td>
</tr>
<tr>
<td>June 27</td>
<td>Early-8 and Middle-4 final grading opens</td>
</tr>
<tr>
<td>July 1</td>
<td>Last day to add/drop Late 6 classes</td>
</tr>
<tr>
<td>July 4</td>
<td>Independence Day (No classes)</td>
</tr>
<tr>
<td>July 8</td>
<td>Last day to WITHDRAW from Late 6 classes</td>
</tr>
<tr>
<td>July 11</td>
<td>Late 4 classes begin</td>
</tr>
<tr>
<td>July 12</td>
<td>Early-8 and Middle-4 final grading closes at 4:30 pm</td>
</tr>
<tr>
<td>July 15</td>
<td>Last day to add/drop Late 4 classes</td>
</tr>
<tr>
<td>July 22</td>
<td>Last day to WITHDRAW from Late 4 classes</td>
</tr>
<tr>
<td>July 25</td>
<td>Full term, Late-8, Late-6 and Late-4 final grading opens</td>
</tr>
<tr>
<td>August 9</td>
<td>Full term, Late-8, Late-6 and Late-4 final grading closes at 4:30 pm</td>
</tr>
</tbody>
</table>
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 seven colleges 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 the campus. It contains 82 student suites which 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.

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 is under construction and will 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.

**Bookstore**

The Idaho State University Bookstore, located in the lower level of the Pond Student Union Building, carries a large selection of new and used textbooks, software, office supplies, Idaho State University clothing, and general interest books.

Regular Bookstore hours are 8 a.m. - 5 p.m. Monday through Friday, and 10 a.m. - 2 p.m. Saturdays, with extended hours during registration. Call the Bookstore at (208) 282-3237 (in Pocatello) or 1-800-688-4781 (outside Pocatello) for more information.


The Bookstore maintains a branch office in Idaho Falls (Idaho State University-Idaho Falls), (208) 282-7940.

Students should purchase textbooks as early as possible to ensure good selection. A full refund will be paid for unmarked books, accompanied by the original sales slip, that are returned by the 7th day from the start of Fall or Spring semester. Books that are marked or damaged will be refunded at the used book price.

**Idaho Museum of Natural History**

[http://imnh.isu.edu/home/](http://imnh.isu.edu/home/)

The Idaho Museum of Natural History was founded by legislative proclamation in 1977. At that time, the museum received its state-mandated mission to enhance in the citizens of Idaho and visitors an understanding of and delight in Idaho’s natural and cultural heritage. The museum has four divisions: Anthropology, Earth Science, Life Science, and Public Programs. Each of the first three divisions is headed by a Research Curator, with other affiliate curators
and collections managers. Significant collections include the Anthropology ethnographic collections, the Earl R. Swanson Archaeological Repository, extensive collections in vertebrate and invertebrate paleontology, and the Ray J. Davis Herbarium. The museum houses the Idaho Virtualization Laboratory and the Center for Archaeology, Materials, and Applied Spectroscopy (CAMAS). Affiliated research institutes include the GIS Training and Research Center, the Informatics Research Institute, and the Don Crabtree Experimental Archaeology Lab.

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 (MUSE) and through courses in Anthropology, Biology, Education, Geo-sciences, History, and other affiliated Idaho State University departments. See Idaho Museum of Natural History course descriptions (http://coursecat.isu.edu/undergraduate/allcourses/muse) in the All Courses section of the catalog.

Information Technology Services

Idaho State University’s Information Technology Services (ITS) is dedicated to meeting the computing needs of ISU’s students. ITS maintains eight full service student computer labs in Pocatello, three in Idaho Falls, two in Meridian, and one in Twin Falls. They also provide kiosk computers in numerous locations throughout campus to provide fast and convenient stand-up email and internet access. And, finally, ITS provides wireless access for students on campus who have their own mobile devices.

Many individual departments operate additional computer labs (partially supported by ITS) which often feature specialized discipline-specific software. Use of the general ITS computer labs, kiosks, wireless network and most departmental labs require the purchase of an ISU Computer Account (currently $35 per semester and $30 for summer). Up to $25 worth of black and white printing is included with a computer account. Some courses require computer accounts.

New computer accounts may be purchased at the IT Service Desk in Pocatello (BA-B9 and Rendezvous Computer Lab), and in the ISU Idaho Falls, Twin Falls, and Meridian computer labs. Students who currently have a computer account can renew their account online or in person.

The IT Service Desk, 208-282-HELP (4357) or help@isu.edu, provides technology support to students accessing IT services, such as Moodle, BengalWeb, or e-mail. Students may also visit our IT Service Desk locations where computer accounts are sold (locations listed above).

BengalWeb (ISU’s electronic portal) 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, check on financial aid, pay for classes and fees, and check their grades. It also provides links to campus news, advising, housing, the library, movie schedules, and much more. All admitted students have access to BengalWeb at http://BengalWeb.isu.edu.

All ISU students are automatically given a free ISU email account for life. 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. Students who need help accessing BengalWeb or their ISU email should contact the ISU Service Desk at (208) 282-HELP (4357).

Student Unions

Idaho State University offers student union services in three locations: the Earl R. Pond Student Union and Hyposyle (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, check cashing service, 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 Hyposyle house offices for the Associated Students of Idaho State University (ASISU); Student Affairs, including the Vice President for Student Affairs, Associate Dean of Students (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, New Student 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 brings additional student lounging areas, automatic teller machine, food service areas, computer lab, meetings rooms, and convenience store.

University Housing

http://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 http://www.isu.edu/housing. The housing fee covers all utilities and basic cable television. On-campus housing is within the university’s wireless internet network, but beware that use of...
internet service requires an ISU computer account, for which a fee is charged per semester.

Food Service
University food service is required for first-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 (http://www.isu.edu/housing) and then click the “Apply Now” link. 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 its past director, Eli M. Oboler, contains major collections of books, periodicals, electronic resources, maps, microforms, and government publications and provides a full range of services to students, faculty, and staff. The library collection of 700,377 book and serial volumes and its 4,576 active journal subscriptions in all formats are accessible through its automated catalog and circulation system, or it’s A-Z Journal List, both available through the library web page at http://www.isu.edu/library/. In addition, the library provides access to numerous databases, many of them with full-text content providing access to an additional 63,711 journals. The University Library has been a depository for federal publications since 1908 and for state of Idaho publications since 1972. The government publications collection contains over 445,024 printed items and approximately 1,964,868 items published in microform.

General reference service is provided on the first floor, where librarians are available to assist patrons in the use of over 89 databases and other reference resources. Library instruction is available to classes and student groups and is tailored to address students’ specific needs, from general library orientation to subject-specific bibliographic research. In addition to supplying informational materials from its own collections, the library provides an inter-library loan service, equipped to locate and deliver books and periodical articles from other libraries’ holdings. Using online electronic ordering and transmission, as well as postal services, the inter-library loan service fills most requests within a week, but students should allow a two-week turnaround time.

The Idaho Health Sciences Library, a department of the Eli M. Oboler Library, supports the health sciences information needs of the university and the Idaho health care community. It also provides specialized health science reference, research and instruction services. The Arthur P. Oliver Law Library, located on the first floor of the Eli M. Oboler Library, houses more than 13,000 law books. An excellent reference resource for students, faculty, and staff, it is supplemented with legal databases.

Idaho Falls
The University Library Center at Idaho State University-Idaho Falls provides reference services, a limited reference collection, and a study area for Idaho State University students. Also available are public access workstations on which students and faculty are able to access most of the information databases. Students are able to request the delivery of books and journal articles from the University Library.

Twin Falls and Lewiston
The Oboler Library has agreements with the libraries at the College of Southern Idaho and at Lewis-Clark State College. These agreements ensure strong library support for Idaho State University students in the Twin Falls and the Lewiston areas. Under these agreements, students are able to access the two libraries and check out materials. They also receive full reference, instruction, inter-library loan, and database searching services. On-line access is available to Idaho State University Library databases and the catalog.

Meridian
A similar agreement in Meridian provides ISU students and faculty the same library privileges accorded to Boise State University students and faculty upon presentation of their Idaho State University identification card.

For more detailed information regarding Library services, including hours of service and policies, visit the library website at http://www.isu.edu/library.

Library Course
LLIB 1115 Information Research 1 credit. 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. Equivalent to ACAD 1115. F, 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 the professional development courses which are the 5597 series. For additional information regarding graduate courses and programs of study, please see the Graduate Catalog.
Idaho Museum of Natural History

The Idaho Museum of Natural History was founded by legislative proclamation in 1977. At that time, the Museum received its state-mandated mission to enhance in the citizens of Idaho and visitors an understanding of and delight in Idaho's natural and cultural heritage. The Museum has four divisions: Anthropology, Earth Science, Life Science, and Public Programs. Each of the first three divisions is headed by a Research Curator, with other affiliate curators and collections managers. Significant collections include the Anthropology ethnographic collections, the Earl R. Swanson Archaeological Repository, extensive collections in vertebrate and invertebrate paleontology, and the Ray J. Davis Herbarium. The Museum houses the Idaho Virtualization Laboratory and the Center for Archaeology, Materials, and Applied Spectroscopy (CAMAS). Affiliated research institutes include the GIS Training and Research Center, the Informatics Research Institute, and the Don Crabtree Experimental Archaeology Lab.

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, Geosciences, History, and other affiliate Idaho State University departments. See Museum course descriptions (http://coursecat.isu.edu/undergraduate/allcourses/muse) in the All Courses section of the catalog.

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

Biomedical Research Institute (IBRI)

Director: Dr. Shawn Bearden

Established in 2005 to increase the collaboration, efficiency and focus of the University’s biomedical research activities, the Biomedical Research Institute is a network of investigators and resources focused on research as a means to improve human health.

The Institute is an interdisciplinary biomedical research environment where scientists, engineers, and health professionals can interact synergistically, without the restrictions of traditional discipline barriers. The IBRI seeks to help every member reach their potential in making significant contributions to improving human health through discovery and dissemination of new knowledge, methods, and technologies.

Our members include academic investigators, clinician scientists, and supporting personnel at ISU and partnering organizations.

Informatics Research Institute (IRI)

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

Director and Professor: Schou
Associate Director and Professor: Lohse
Associate Professors: Cady, Sammons, J. Strickland
Research Associate Professor: Laxminarayan
Assistant Professor: Frost
Affiliate Professors: Leibrock, Longley, Murray
Affiliate Assistant Professors: Moulton, Slay, Willis

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. The Center is directed by E.S. Lohse, Professor of Anthropology and Division Head for Anthropology, Idaho Museum of Natural History.

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.

Information Assurance Degree Concentrations

The IRI coordinates the federally designated Center of Academic Excellence in Computer Security Education. The Center of Academic Excellence includes formal concentrations in Information Assurance at the undergraduate and graduate level in cooperation with NIATEC and CITI. In addition, the Informatics Research Institute offers formal concentrations in Information Assurance for Baccalaureate, Masters, and Doctoral Programs. These concentrations may be above the regular degree requirements documented by the DHS/CNSS approved Certificates offered by Idaho State University.

Certificates for Concentrations:

- CNSS 4011 - National Training Standard for Information Systems Security (INFOSEC) Professionals
- CNSS 4012 - Senior Systems Manager
- CNSS 4013 - Systems Security Administration
- CNSS 4014 - Information Systems Security Officer
- CNSS 4015 – Systems Certification

Program of Study:

Students with appropriate pre-requisites may take courses within the information assurance program as part of a formal information assurance concentration in their degree program. With approval of their advisor and the faculty they may pursue certificates in specialty areas. In addition to courses that support specialized certifications the program offers courses in Computer Forensics and
Risk analysis. All courses require preparation of research papers in information assurance topic related to their major field.

- **CNSS 4011** - Students in the Computer Information System major may take INFO 4411 Intermediate Information Assurance, a minimum of 6 hours of INFO 4419 Advanced Informatics Practicum or INFO 4493 Advanced Informatics Internship and two additional courses in Information Assurance. Students in the INFO minor may take the same series of courses. Students in other majors may have to take additional courses.

All students seeking additional certifications must complete the requirements for CNSS 4011 and the following:

- **CNSS 4012** – Students certifying for 4012 must complete:
  - INFO 4411 Intermediate Information Assurance 3
  - INFO 4412 Systems Security for Senior Management 1-3
  - INFO 4413 Systems Security Administration 1-3
  - INFO 4414 Systems Security Management 1-3
  - INFO 4415 System Certification 1-3

- **CNSS 4013** – Students certifying for 4013 must complete:
  - INFO 3380 Networking and Virtualization 3
  - INFO 4411 Intermediate Information Assurance 3
  - INFO 4413 Systems Security Administration 1-3

- **CNSS 4014** – Students Certifying for 4014 must complete:
  - INFO 4411 Intermediate Information Assurance 3
  - INFO 4413 Systems Security Administration 1-3
  - INFO 4414 Systems Security Management 1-3

- **CNSS 4015** – Students Certifying for 4015 must complete:
  - INFO 4411 Intermediate Information Assurance 3
  - INFO 4414 Systems Security Management 1-3
  - INFO 4415 System Certification 1-3

### 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/](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 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 [http://enr.isu.edu/nehp/ne/fac](http://enr.isu.edu/nehp/ne/fac)
# Idaho State University Administration

## Office of the President

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthur C. Vailas, Ph.D.</td>
<td>President of the University</td>
<td>(208) 282-3440</td>
</tr>
<tr>
<td>David E. Alexander</td>
<td>Office of General Counsel</td>
<td>(208) 282-3234</td>
</tr>
<tr>
<td>Jeffrey Tingey</td>
<td>Director, Intercollegiate Athletics</td>
<td>(208) 282-4064</td>
</tr>
</tbody>
</table>

## Academic Affairs

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laura Woodworth-Ney</td>
<td>Provost and Vice President for Academic Affairs</td>
<td>(208) 282-2171</td>
</tr>
<tr>
<td>Richard Brey</td>
<td>Interim Dean, College of Science and Engineering</td>
<td>(208) 282-4539</td>
</tr>
<tr>
<td>Karl Bridges</td>
<td>Dean, University Library</td>
<td>(208) 282-3045</td>
</tr>
<tr>
<td>Sari Byerly</td>
<td>Director, TRIO Student Services</td>
<td>(208) 282-3242</td>
</tr>
<tr>
<td>Paul S. Cady</td>
<td>Dean, College of Pharmacy</td>
<td>(208) 282-2175</td>
</tr>
<tr>
<td>Lyle Castle</td>
<td>Vice Provost for Academic Affairs; Dean, Academic Programs, ISU-Idaho Falls</td>
<td>(208) 282-7852</td>
</tr>
<tr>
<td>Ali K. Crane</td>
<td>Director, Student Services and Enrollment Planning, Idaho State University-Meridian</td>
<td>(208) 373-1706</td>
</tr>
<tr>
<td>Maria Fletcher</td>
<td>Director, International Programs</td>
<td>(208) 282-5304</td>
</tr>
<tr>
<td>Randy Gaines</td>
<td>Chief Information Officer</td>
<td>(208) 282-2499</td>
</tr>
<tr>
<td>Selena Grace</td>
<td>Associate Vice President for Institutional Effectiveness</td>
<td>(208) 373-1874</td>
</tr>
<tr>
<td>Linda C. Hatzenbuehler</td>
<td>Vice Provost and Executive Dean, Division of Health Sciences</td>
<td>(208) 282-4899</td>
</tr>
<tr>
<td>Deborah L. Hedeen</td>
<td>Dean, College of Education</td>
<td>(208) 282-3259</td>
</tr>
<tr>
<td>Karina Hensley</td>
<td>Acting Director, Disability Resources</td>
<td>(208) 282-3599</td>
</tr>
<tr>
<td>JoAnn Hertz</td>
<td>Director, Central Academic Advising</td>
<td>(208) 282-3277</td>
</tr>
<tr>
<td>Cynthia Hill</td>
<td>Executive Director, Student Success Center</td>
<td>(208) 282-3662</td>
</tr>
<tr>
<td>Jeff Hough</td>
<td>Interim Director, Division of Continuing Education and Conference Services</td>
<td>(208) 282-1059</td>
</tr>
<tr>
<td>Richard Jacobsen</td>
<td>Director of Strategic Management</td>
<td>(208) 373-1792</td>
</tr>
<tr>
<td>Margaret Johnson</td>
<td>Associate Vice President for Undergraduate Affairs</td>
<td>(208) 282-3520</td>
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## Research and Economic Development

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Bessie Katsilometes</td>
<td>Associate Vice President, University Programs, ISU-Meridian</td>
<td>(208) 373-1708</td>
</tr>
<tr>
<td>Laura McKenzie</td>
<td>University Registrar</td>
<td>(208) 282-2661</td>
</tr>
<tr>
<td>Vince Miller</td>
<td>Director, Institutional Research</td>
<td>(208) 282-1045</td>
</tr>
<tr>
<td>Mary Nies</td>
<td>Dean, School of Nursing</td>
<td>(208) 282-2443</td>
</tr>
<tr>
<td>Thomas Ottaway</td>
<td>Dean, College of Business</td>
<td>(208) 282-2601</td>
</tr>
<tr>
<td>Scott Rasmussen</td>
<td>Dean, College of Technology</td>
<td>(208) 282-2507</td>
</tr>
<tr>
<td>Chelsie Rauh</td>
<td>Director, Early College Program</td>
<td>(208) 282-2633</td>
</tr>
<tr>
<td>Nicole Roseberg</td>
<td>Interim Director, Admissions</td>
<td>(208) 282-2123</td>
</tr>
<tr>
<td>Scott Scholes</td>
<td>Associate Vice President for Enrollment Management</td>
<td>(208) 282-6122</td>
</tr>
<tr>
<td>Leif Tapanila</td>
<td>Acting Director, Idaho Museum of Natural History</td>
<td>(208) 282-5417</td>
</tr>
<tr>
<td>Kandi Jo Turley-Ames</td>
<td>Founding Dean, College of Arts and Letters</td>
<td>(208) 282-3053</td>
</tr>
<tr>
<td>Chris Vaage</td>
<td>Director, University Programs, ISU-Twin Falls</td>
<td>(208) 282-4840</td>
</tr>
<tr>
<td>Cornelis J. Van der Schyf</td>
<td>Dean, Graduate School</td>
<td>(208) 282-2490</td>
</tr>
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## Finance and Administration

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Cornellis J. Van der Schyf</td>
<td>Vice President for Research</td>
<td>(208) 282-3134</td>
</tr>
<tr>
<td>Deb Easterly</td>
<td>Executive Director, Research Integrity</td>
<td>(208) 282-2618</td>
</tr>
<tr>
<td>Dave Harris</td>
<td>Executive Director, Research Development</td>
<td>(208) 282-2592</td>
</tr>
<tr>
<td>Monica Huyg</td>
<td>Director, Contracts</td>
<td>(208) 282-3478</td>
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## Research and Economic Development

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>James A. Fletcher</td>
<td>Vice President for Finance and Administration</td>
<td>(208) 282-3540</td>
</tr>
<tr>
<td>Brad Batiuk</td>
<td>Assistant Vice President for Finance and Administration/Budget Officer</td>
<td>(208) 282-4277</td>
</tr>
<tr>
<td>David Buck</td>
<td>Director, Purchasing Services</td>
<td>(208) 282-3111</td>
</tr>
<tr>
<td>Roger Egan</td>
<td>Executive Director of Treasury, Procurement, Policies, and Business Services</td>
<td>(208) 282-2512</td>
</tr>
<tr>
<td>Randy Gaines</td>
<td>Chief Information Officer</td>
<td>(208) 282-2499</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
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</tr>
<tr>
<td>Stacey Gibson</td>
<td>Director, Equal Opportunity, Affirmative Action, and Diversity</td>
<td>(208) 282-3973</td>
</tr>
<tr>
<td>Brian Hickenlooper</td>
<td>Assistant Vice President for Finance and Administration</td>
<td>(208) 282 4117</td>
</tr>
<tr>
<td>James Martin</td>
<td>Director, Financial Aid and Scholarships</td>
<td>(208) 282-2341</td>
</tr>
<tr>
<td>Lynette Mitchell</td>
<td>Assistant Vice President for Finance/Management and Academic Affairs</td>
<td>(208) 282-4380</td>
</tr>
<tr>
<td>Phillip M. Moessner</td>
<td>Associate Vice President for Facilities Services</td>
<td>(208) 282-4229</td>
</tr>
<tr>
<td>Stephanie Richardson</td>
<td>Assistant Director, Anderson Gender Resource Center</td>
<td>(208) 282-3590</td>
</tr>
<tr>
<td>Brant Wright</td>
<td>Controller</td>
<td>(208) 282-4208</td>
</tr>
</tbody>
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**University Advancement**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Kent M. Tingey, D.A.</td>
<td>Vice President for University Advancement</td>
<td>(208) 282-3198</td>
</tr>
<tr>
<td>George Casper</td>
<td>Director, Event Management</td>
<td>(208) 282-3398</td>
</tr>
<tr>
<td>K.C. Felt</td>
<td>Director, Alumni Relations</td>
<td>(208) 282-3755</td>
</tr>
<tr>
<td>Kent S. Kunz</td>
<td>Director, Government Relations</td>
<td>(208) 334-4781</td>
</tr>
<tr>
<td>Adrienne King</td>
<td>Director, Marketing and Communications</td>
<td>(208) 282-4407</td>
</tr>
<tr>
<td>Pauline Thiros</td>
<td>Associate Vice President for Development</td>
<td>(208) 282-4883</td>
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</tbody>
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**Student Affairs**

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Patricia Smith Terrell, Ed.D.</td>
<td>Vice President for Student Affairs</td>
<td>(208) 282-2315</td>
</tr>
<tr>
<td>Brooke Barber</td>
<td>Director of Orientation, Leadership, and Service</td>
<td>(208) 282-2973</td>
</tr>
<tr>
<td>Ches Barnes</td>
<td>Director, Bennion Student Union</td>
<td>(208) 282-7865</td>
</tr>
<tr>
<td>Lance Erickson</td>
<td>Director, Career Center</td>
<td>(208) 282-2380</td>
</tr>
<tr>
<td>Jacob Johnson</td>
<td>Director, Student Life</td>
<td>(208) 282-2794</td>
</tr>
<tr>
<td>Todd Johnson</td>
<td>Director, Veteran Student Services Center</td>
<td>(208) 282-4245</td>
</tr>
<tr>
<td>Doug Milder</td>
<td>Director, Campus Recreation</td>
<td>(208) 282-3151</td>
</tr>
<tr>
<td>Jerry Miller</td>
<td>General Manager, ISU Radio</td>
<td>(208) 282-4812</td>
</tr>
<tr>
<td>Don Paulson</td>
<td>Director, Counseling and Testing Services</td>
<td>(208) 282-2130</td>
</tr>
<tr>
<td>Lowell Richards</td>
<td>Assistant Vice President for Student Affairs, Idaho State University Student Unions and Student Activities</td>
<td>(208) 282-2427</td>
</tr>
<tr>
<td>Ron Solbrig</td>
<td>Director, Idaho State University Health Center</td>
<td>(208) 282-2330</td>
</tr>
<tr>
<td>Craig Thompson</td>
<td>Director, University Housing</td>
<td>(208) 282-2120</td>
</tr>
<tr>
<td>Kerry Williamson</td>
<td>Director, Early Learning Center</td>
<td>(208) 282-3274</td>
</tr>
</tbody>
</table>

**State Board of Education**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emma Atchley</td>
<td>President</td>
</tr>
<tr>
<td>Rod Lewis</td>
<td>Vice President</td>
</tr>
<tr>
<td>Don Soltman</td>
<td>Secretary</td>
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<tr>
<td>Debbie Critchfield</td>
<td>Member</td>
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<tr>
<td>Bill Goesling</td>
<td>Member</td>
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<tr>
<td>David Hill</td>
<td>Member</td>
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<tr>
<td>Richard Westerberg</td>
<td>Member</td>
</tr>
<tr>
<td>Sherri Ybarra</td>
<td>State Superintendent of Public Instruction, Ex-officio Member</td>
</tr>
</tbody>
</table>
Idaho State University – Idaho Falls

Dean, Academic Programs:
Lyle Castle, Ph.D.

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/departments/ifche

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 29 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 more than 2,000 students each semester 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 degrees in biology, business, English, 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 using a single admission, registration and fee-payment process. A partnership with Eastern Idaho Technical College makes health-professions education available close to the city’s high-tech regional medical center.

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/departments/ifche.
Idaho State University – Meridian

Dean, Academic Programs:
Ms. Bessie Katsilometes

Idaho State University–Meridian
1311 E Central Dr.
Meridian ID 83642
(208) 373-1700

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

In keeping with Idaho State University’s mission to educate health professionals and address the need for graduates in the health disciplines, Idaho State University–Meridian offers several programs in the health professions.

Idaho State University–Meridian currently offers five undergraduate programs, including an Associate of Science in Paramedic Science, Bachelor of Science degrees in Communication Sciences and Disorders, Medical Laboratory Science, and Educational Interpreting, and a 16-month Fast Track Nursing program. Idaho State University–Meridian also offers 10 graduate degree programs, primarily in the health professions, including the third and fourth year in a Doctor of Audiology program. The College of Pharmacy in the Division of Health Sciences oversees third- and fourth-year professional pharmacy students, including clinical rotations in the Meridian area. Other programs housed at Idaho State University–Meridian include a dietetic internship and a dental residency program.

The campus covers approximately 40,000 square feet and houses classrooms, six distance learning rooms, two computer labs, a laboratory, and clinics for speech-language pathology, nursing, and counseling.

Student applications and enrollment materials are available at Idaho State University–Meridian.
Idaho State University – Twin Falls

Director, Academic Programs:
Ms. Chris Vaage
Idaho State University–Twin Falls
Evergreen Building, Suite B-40
College of Southern Idaho
PO Box 1238
Twin Falls, ID 83303
(208) 736-2101 • (208) 282-4840
http://www.isu.edu/twinfalls/

Idaho State University has offered courses in the Twin Falls area since the 1960s. As part of the university mission to serve southern Idaho students, a resident center was established in Twin Falls in 1981. The center was moved in 1992 to the Evergreen Building on the College of Southern Idaho campus, which also houses two state-of-the-art distance learning classrooms and a student computer laboratory networked with the Idaho State University campus in Pocatello. Three professionals and support staff advise students with curriculum questions and act as general advocates for commuting students.

Idaho State University–Twin Falls offers programs leading to one doctoral, four master’s, and five baccalaureate degrees from the Colleges of Arts and Letters, Education, and Health Professions. Idaho State University-Twin Falls provides the upper-division and graduate work on a rotating schedule, while the general education requirements and most other lower-division courses are available through CSI. University professors and highly qualified local adjunct instructors ensure that course quality is equal to that found on the Pocatello campus.

An interactive telecommunications system has broadcast classes live from Pocatello to CSI since 1990. Courses in anthropology, biology, corporate training, education, English, geosciences, health education, history, library science, mass communication, nursing, pharmacy, political science, psychology, rhetorical studies, social work, sociology, women studies, and vocational education have all been presented in this way. Regularly scheduled courses are enhanced by courses Idaho State University delivers to area school districts for teacher development. Workshops and seminars in specific professional development areas are also available.

Access to Internet, email, and a large variety of software augments the Idaho State University student experience in a 20-station computer lab networked with the main campus. Twin Falls area Idaho State University students who have home computers with modems may access the network with a local phone call. Free computer workshops are routinely scheduled in the lab.

Other services include registration, fee payment, and assistance with university forms and information. In addition, a student commuter bus operates between Twin Falls and Pocatello.
Alumni Association and Foundations

Alumni Association

www.isu.edu/alumni
alumni@isu.edu

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 association is governed by a board of directors and administered through the office of Alumni Relations, 554 S. 7th Avenue, Pocatello, in the H. F. Magnuson House.

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 officers and directors meet three times a year with the director of alumni relations, who is appointed by the university administration.

Idaho State University Bengal Foundation

The Idaho State University Bengal Foundation 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 Bengal Foundation was officially formed in September of 1976. It is governed by a board of directors and administered through the office of the Bengal Foundation located in Holt Arena. For information on becoming a member, contact The Bengal Foundation 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.
Division of Continuing Education and Conference Services

Jeff Hough, Interim Director
Division of Continuing Education and Conference Services
1001 N 7th Ave. Stop 8062
Pocatello ID 83209-8062
(208) 282-3155
extendedlearning@isu.edu
http://www.isu.edu/conteduc

Continuing Education coordinates programs throughout Idaho State University as well as area businesses. Programs include courses and workshops for faculty and staff, professionals, businesses and educators, with emphasis on administering a wide variety of educational experiences for the community and surrounding region.

The general mission of Continuing Education is to provide high quality leadership and support services for continuing professional education and lifelong learning activities for all ages held throughout the university’s service territory, with special emphasis on teacher education, health professions, and arts and sciences. Program sites in Idaho include Pocatello, Idaho Falls, Twin Falls, Ketchum/Sun Valley, and Meridian. Specific programs are also held nationally. Offerings include credit and non-credit programs, evening and weekend programs, short courses, web conferences, seminars, institutes, youth enrichment programs, customized training and conferences. Continuing Education administers the National Continuing Education Unit (CEU) (see below) in conjunction with the International Association for Continuing Education and Training. More than 15,000 people participate annually in 400 activities.

Programs served by Conference Services include the annual Idaho Conference on Health Care, Early Childhood Conference, Intermountain Conference on the Environment, and coordination of web conferences such as those produced by the National University Telecommunications Network (NUTN), PBS/Adult Learning Systems (ALS), and Worldwide Lessons in Leadership.

ISU’s Division of Continuing Education, in partnership with Gatlin Education Services (GES), offers hundreds of engaging online courses for personal enrichment and/or professional development in a variety of industries and fields. For more information, visit http://www.isu.edu/conteduc/.

For a list of course offerings, to make suggestions for course offerings or potential instructors, or other desired information, write or telephone the address given above.

CEU Program

The Continuing Education Unit is an internationally accepted method for quantifying the value of noncredit continuing education activities (defined as quality instruction that does not carry academic credit). Each contact hour in an approved workshop, in-service, conference session, short course or training program is recorded as 1/10 CEU. These do not accumulate for college credit. Noncredit continuing education programs that offer CEUs are most frequently sponsored by associations, agencies, educational institutions, business and industry for the benefit of members, registered participants, employees, etc. It communicates to participants the value that the sponsoring group places upon professional development, information updating, retraining and lifelong learning.

There is a recording fee of $20 per class to create a permanent transcript that is then available through the Idaho State University Registrar’s Office upon written request.

New Knowledge Adventures and Friends for Learning

Under the direction of the former Elderhostel organization, now known as Road Scholar, Idaho State University has developed these programs for Idahoans 50 years and older, featuring member-directed, peer-led programs throughout the fall and spring semesters, and short courses in a wide variety of areas. Members join for one semester at a time and all programs are open to them in Pocatello (New Knowledge Adventures (http://www.isu.edu/dce/nka)) and Idaho Falls (Friends for Learning (http://friendsforlearning.com)).
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 (http://www.legislature.idaho.gov/idstat/Title33/T33CH37SECT33-3717B.htm). Generally speaking, students new to Idaho may be considered residents of Idaho after having resided here for 12 consecutive months. If a student is enrolled for more than 8 hours in any semester, the presumption is made that the student is in Idaho for primarily educational purposes. However, if it is the student’s intention to establish residency in Idaho as well as to attend school, the student may still qualify for Idaho residency. Additionally, residency can be based on the student, the student’s spouse, or the student’s parent/guardian (if a dependent student).

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) (http://www.boardofed.idaho.gov/public_col_univ/Residency/Residency%20Determination%20Worksheet%202013.pdf). 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 IROW, “For University of Utah Medical School.”

The student must then attach documentation to this IRDW in support of residency. The student must include one of the three items in Part IV or five of the six items in Part V of the IRDW. Each one of these items must have been issued/dated twelve months prior to the opening date of the semester for which the student hopes to qualify for residency.

The student’s signature must then 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, faxed, or emailed to the Office of the Registrar:

921 S. 8th Ave  
Mail Stop 8196  
Pocatello, ID 83209-8196  
Phone: (208) 282-2661  
Fax: (208) 282-4231  
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

- Residency FAQ (http://www.isu.edu/areg/residency/residencyFAQ.shtml)

For additional residency information, please review the or contact the Office of the Registrar at (208) 282-2661 or Residency Officer (irdw@isu.edu).
# Undergraduate Programs

## Bachelor Degrees

- Accounting (p. 165) - B.B.A.
- Anthropology (p. 76) - B.A.
- Applied Science (p. 53) - B.A.S.
- Art (p. 81) - B.A., B.F.A.
- Biochemistry (p. 315) - B.S.
- Biology (p. 315) - B.A., B.S.
- Business (p. 160) - B.B.A.
- Business Administration (p. 160) - B.B.A.
- Business Informatics (p. 174) - B.B.A.
- Chemistry (p. 328) - B.A., B.S.
- Civil Engineering (p. 341) - B.S.
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- Communication Sciences and Disorders (p. 304) - B.S.
- Computer Science (p. 336) - B.S.
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- Dietetics (p. 258) - B.S.
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- Economics (p. 168) - B.A., B.S.
- Education, Blended Early Childhood (p. 192) - B.A.
- Education, Elementary (p. 196) - B.A., B.S.
- Education, Secondary (p. 199) - B.A., B.S.
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- Emergency Management (p. 263) - B.S.
- English (p. 93) - B.A.
- Family and Consumer Sciences (p. 192) - B.S.
- Finance (p. 160) - B.B.A.
- Fire Services Administration (p. 267) - B.A.
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- History (p. 119) - B.A.
- International Studies (p. 104) - B.A.
- Management (p. 178) - B.B.A.
- Marketing (p. 181) - B.B.A.
- Mathematics (p. 363) - B.S.
- Mechanical Engineering (p. 347) - B.S.
- Medical Laboratory Science (p. 278) - B.S.
- Microbiology (p. 315) - B.S.
- Music (p. 129) - B.A., B.M., B.S.
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- Nuclear Engineering (p. 350) - B.S.
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- Physical Education (p. 216) - B.A., B.S.
- Physics (p. 368) - B.A., B.S.
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- Energy Systems Mechanical Engineering Technology (p. 407) - A.A.S.
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- (Inactive)
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- Health Physics (p. 350) - A.S.
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- Computer Network Technician (p. 423)
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- Administrative Technology (p. 386)
- Advanced Automation and Manufacturing (p. 375)
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- Computer Network Technician (p. 423)
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- Machining Technology (p. 396)

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Robotics and Communication Systems Engineering Technology (p. 440)
Welder-Fitter (p. 446)

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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 admission a student must submit a completed application for admission, a $50 non-refundable application fee, official high school/college transcripts and either ACT, SAT, and/or Compass test scores to the ISU Admissions Office located in the Museum Building, Room 319. This may also be done by mail:

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 professional-technical programs, contact the College of Technology (p. 372). Graduate students should refer to the Graduate Catalog (http://coursecat.isu.edu/graduate).

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 an admission application, other supporting forms, and accompanying instructions, or visit our web page at www.isu.edu/future

Typically, the Office of Admissions notifies students of admission decisions within 14 days of receiving the student’s 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 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.

Application

To allow appropriate time for evaluation, admission decisions, and appropriate notification, all applications and documentation should be submitted to the Office of Admission at least three weeks prior to the start of the semester for acceptance consideration. Otherwise, a $20 late fee may be assessed and an admission decision cannot be guaranteed prior to the beginning of the ensuing semester.

Students should hear from the Office of Admissions at Idaho State University approximately 14 days following receipt of their complete application file.

Definitions

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 freshman.

2. Transfer Students - Students who have attempted 14 or more credits at any college or university after graduating from high school (or receiving a GED) prior to enrolling at Idaho State University.

3. Professional Technical - Students who plan on enrolling in a professional technical program through the College of Technology.

4. Former - Students who have been accepted and enrolled at ISU previously but have not enrolled in classes for the past 8 semesters.

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. International - Refer to International Programs Office processes.

Student classifications that could fall into any of the student group categories:

1. Dual Citizen - Students that have citizenship in the United States and another country are required to meet the admission requirements for their student application type. The applicant needs to submit appropriate documentation showing 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).

2. DACA (Deferred Action for Childhood Arrivals) - Undocumented applicants who come to the U.S. as children.

Assured Admission - This status means the student has satisfied the full complement of admission requirements.

Conditional Admission - This status means the student has satisfied most of the admission requirements. Conditional Admission is not a probationary status but is subject to credit hour restrictions. Students conditionally accepted are considered for scholarships and have the rights and privileges granted all students.

Idaho State Board of Education College Entrance Core Requirements

<table>
<thead>
<tr>
<th>Department</th>
<th># Semesters</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (Composition, Literature)</td>
<td>8</td>
</tr>
</tbody>
</table>
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.)


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

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)

New Freshmen

Application Steps for New Freshmen
1. Apply for Admission – the form is online at http://www.isu.edu/apply/
2. Pay $50 nonrefundable application fee.
3. Submit official ACT or SAT Scores. (Students 21 years or older are exempt from submitting ACT/SAT scores.)
4. Submit an official high school transcript (transcript should be sent by the high school in a sealed envelope.)
5. After high school graduation, an official copy of the final high school transcript must be mailed via U.S. Mail 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.) GED recipients must request that official GED scores be mailed to ISU. No transcripts will be accepted directly from a student under any circumstances.

High School Graduates

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

Assured Admission Requirements:
1. Completed Undergraduate Admission Application with the $50 nonrefundable application fee 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 490 on the SAT,
5. An English minimum test score of 18 on the ACT or 460 on the SAT Critical Reading.

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.

Conditional Admission Requirements:
1. Completed Undergraduate Admission Application with the $50 nonrefundable application fee paid,
2. A 2.25 or better cumulative grade point average,
3. A math minimum test score of 12 on the ACT or 270 on the SAT,
4. An English minimum test score of 12 on the ACT or 360 on the SAT Critical Reading.

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.

Home School Students

Assured Admission Requirements:
1. Completed Undergraduate Admission Application with the $50 nonrefundable application fee paid,
2. Received test scores meeting the following:
   a. Composite score of at least a 20 on the ACT or a 950 combined SAT Math and Critical Reading score,
   b. Math score of at least 18 on ACT or 490 on the SAT,
   c. English score of at least 18 on the ACT or 460 on the SAT Critical Reading exam,
3. Meets one of the following:
   a. Passing score on the GED,
   b. Completion of the Compass tests in Math, Reading, and Writing, with scores of at least 40 in Algebra and at least 68 in Writing, or
   c. Submits accredited high school transcript with GPA of at least a 2.50

Conditional Admission Requirements:
1. Completed Undergraduate Admission Application with the $50 nonrefundable application fee paid,
2. Received test scores meeting the following:
   a. Composite score of at least 14 on the ACT or a 630 combined SAT Math and Critical Reading score,
   b. Math score of at least 12 on the ACT or 270 on the SAT,
   c. English score of at least 12 on the ACT or 360 on the SAT Critical Reading exam,
3. Meets one of the following:
   a. Passing score on the GED,
   b. Completion of the Compass tests in Math, Reading, and Writing, with scores of at least 40 in Algebra and at least 68 in Writing, or
   c. Submits accredited high school transcript with a GPA of at least a 2.25.

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 Admissions Applications with the $50 nonrefundable application fee paid, and
Assured Admission Requirements:

1. Completed Undergraduate Admission Application with the $50 non-refundable application fee paid.
2. Received test scores meeting the following:
   a. Composite score of at least 20 on the ACT or a 950 combined SAT Math and Critical Reading score,
   b. Math score of at least 18 on ACT or 490 on the SAT,
   c. English score of at least 18 on the ACT or 460 on the SAT Critical Reading Exam, and
   d. Passing score on the GED with a minimum 170 score on each test and a total of 680 or higher.

Conditional Admission Requirements:

1. Passing GED scores with a minimum 160 score on each test and an average of 450 or above, and
2. Composite score of at least 20 on the ACT and an 18 or higher in English, and
3. 18 or higher in Math, or a combined SAT of 980 and at least a 460 or higher in critical reading and 490 or higher in math.

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

Assured Admission Requirements:

1. Passing GED scores with a minimum 410 or higher score on each test and an average of 450 or above, and
2. Composite score of at least 20 on the ACT and 18 or higher in English, and
3. Math score of at least 12 on the ACT or 270 on the SAT,
4. English score of at least 18 on the ACT or 460 on the SAT Critical Reading Exam, and
5. Passing score on the GED with a minimum 160 score on each test and a total of 640 or higher.

Conditional Admission Requirements:

1. Passing GED scores with a minimum 410 or higher score on each test and an average of 450 or above, and
2. COMPASS Writing score of at least 68 and Algebra score of at least 40.

GED Applicants Over 21 Years Old (GED Taken earlier than 2002)

Assured Admission Requirements:

1. Passing GED scores with a minimum of 41 or higher on each test and a total of 45 or higher, and
2. COMPASS score in writing of at least 68 and Algebra score of at least 40.

Conditional Admission Requirements:

1. Passing GED scores, and
2. COMPASS score in writing of at least 68 and Algebra score of at least 40.

Admission by Petition

Applicants that do not meet assured or conditional admission, may request further consideration for admission because of special circumstances. Applicants may submit an admission petition to the Office of Admissions explaining why they feel that they can be successful at Idaho State University and documenting their special circumstances, along with current test scores (ACT, SAT, and/or Compass), and letters of support. Letters of support from counselors, teachers, etc. are encouraged.

Admission petitions will be approved only when the applicant provides evidence of preparedness for academic success at the level described by the requirements for assured admission, even if not all the requirements are met. Examples of such evidence are above average ACT, SAT, GED, Compass, or TABE (Test of Basic Education) scores, a high school or college GPA that for all semesters but one or two is well above that given in the requirements, or military or other life experience in the years since previous academic work demonstrating a strong foundation for academic success.

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, Academic Advising, Office of the Registrar, the Athletics Department, Disability Services, College of Technology, TRiO Student Services, and START program. Completed petitions are usually reviewed within one month.

Applicants whose petitions are approved must sign an Admission Agreement that limits the number of credits the student may attempt, requires registration in support or developmental courses, and requires regular meetings with an assigned advisor from Central Academic Advising.

Admission Deferment Policy

An admitted Freshmen student who decides 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 2015 semester could request a deferment up to and including the Fall 2018 semester. See the table below 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 their volunteer service, and
• will not enroll at another post-secondary institution prior to their enrollment at ISU.

The “Admission Deferment Request” form (available at www.isu.edu/future/defer) must be submitted to the Office of Admission by August 1 before the fall semester for which the student has been admitted. (Example: For students admitted for Fall 2015 semester, the form must be received by August 1, 2015.) See the table below for deadlines for additional semesters. 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: Fall 2015
Can defer admission until: Fall 2018
Deadline for ISU to receive Admissions Deferment Request Form: 8/1/2015

Session Admitted: Spring 2016
Can defer admission until: Spring 2019
Deadline for ISU to receive Admissions Deferment Request Form: 12/1/2015

Session Admitted: Fall 2016
Can defer admission until: Fall 2019
Deadline for ISU to receive Admissions Deferment Request Form: 8/1/2016

Re-Applying for Admission
Applicants not meeting requirements to be granted assured or conditional admission have the opportunity to re-apply to the university after they have completed 14 or more transferable semester hours (credits) at a regionally accredited college or university. Students may also re-apply if they receive passing Test of Adult Basic Education (TABE) exam scores after additional preparation.

Transfer Students
Applicants who have attempted 14 or more 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. Complete Undergraduate Admission Application with the $50 non-refundable application fee 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
Transfer courses are evaluated on a course-by-course basis. Credits earned at the baccalaureate level from a regionally accredited institution are transferable.

All international post-secondary transcripts must go through an evaluation service approved by the National Association of Credential Evaluation Services, Inc. (NACES). Students need to provide the Office of Admissions with the official credential evaluation in addition to the official transcripts. For evaluations, Idaho State University recommends:

- World Education Services - http://www.wes.org 212-966-6311
- Global Credential Evaluators Inc. - http://www.gcevaluators.com 512-528-0908
- Educational Credential Evaluators - http://www.ece.org 414-289-3400

In order for an evaluation to be considered official, it must come to us directly from the evaluation service.

Vocational or technical coursework may be considered for transfer with limitations; these courses are subject to review by the student's academic department chair and dean. For specific questions regarding technical transfer credit, please contact the Office of the Registrar at (208) 282-2661.

Note: Departments determine the transferability of specific transfer course into major and/or program requirements. Courses that are transferred to ISU do not count in the official ISU GPA.

Transfer Credit Limitations
Students transferring to ISU from a two year institution may use a maximum of 70 credits of Junior College coursework towards a baccalaureate degree at ISU.

Students transferring to ISU from a quarter credit institution will earn 2/3 of a semester credit for every credit earned on the quarter system.

Credits are transferred to Idaho State University at the level earned at the institution of origin. Transferred lower division (1000 and 2000 level) credit may NOT count as upper division (3000 and 4000) credit regardless of the appropriate course equivalencies determined by the Office of the Registrar.

Credits earned from a non-regionally accredited institution are generally not transferable to ISU. If you have questions or concerns, please contact the Office of the Registrar.

Transfer Credits toward General Education Requirements
1. Students transferring to ISU with an Associate of Science, Associate of Arts, or Associate of Arts and Science degree earned after 1995 or a baccalaureate degree from any U.S. regionally accredited institution will be considered to have met ISU’s general education requirements.

2. Students transferring to ISU from any U.S. regionally accredited institution who have not earned an Associate of Science, Associate of Arts, or Associate of Arts and Science degree earned after 1995, but have earned an "Idaho
Core Certified” designation from the sending institution will be considered to have met ISU’s general education requirements.

Note: Some departments require specific courses identified as fulfilling general education requirements in their major or minor program of study. Students who earn general education waivers based on prior degrees must still complete all defined program requirements within their major or minor area.

Other Applicants

Former Students

Application Steps for Former Students:

Students who have applied and been accepted for admission but have NOT enrolled for classes at Idaho State University for 8 semesters are required to reapply and submit the following to the Office of Admissions:

1. Application for Admission online at http://www.isu.edu/apply
2. Resubmit all official documentation:
   a. Submit high school transcript, if applicable
   b. Submit all official transcripts from any college attended prior to enrolling at ISU and after attending Idaho State University.
   c. Submit any of the following, if applicable:
      i GED Scores
      ii Compass Scores
      iii ACT/SAT Scores
3. Pay the $50 non-refundable application fee.

Students Who Previously Applied 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 semester without reapplying. Acceptance is granted for a two (2) semester time frame. However, students MUST complete an “Admissions Update Form” or call the Office of Admissions at (208) 282-2475 to provide current information, including official transcripts from all other colleges or universities attended since initial application submission, prior to being allowed to enroll for classes.

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 which 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.

Non-Degree Seeking Students

A person may apply as a non-degree seeking student if he/she does not wish to qualify for admission 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. If a non-degree seeking student chooses to apply as a degree seeking student, they are considered a new freshman unless they have attempted/earned credits toward 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 continuing their high school courses and activities. Courses may be taught at their high schools by teachers approved as Idaho State University adjunct faculty. High Schools may allow Idaho State University courses to be applied to meet high school graduation requirements.

High school students must complete an Idaho State University Early College Program Application, submit the written permission form with the principal or counselor signature, along with a parent’s and the student’s written signatures. High school students meeting the necessary requirements (3.0 cumulative GPA, 16 years old or completed half of their high graduation requirements) will be allowed to enroll as non-degree seeking students. High school students may enroll in any class offered through Idaho State University for which they have met the prerequisites.

All qualified high school students receive a partial fee scholarship and pay reduced fees. A student must hold the status of high school student for the entire Idaho State University course’s length in order to participate within the Early College Program. High school students are NOT eligible to receive federal financial aid.

For additional information and/or registration contact the Early College Program at (208) 282-6067 / (208) 282-2633 or http://www.earlycollege.isu.edu.

Idaho State University has established the University Health High School program to introduce students to the health professions, since the university is Idaho’s center for education in this domain. Learn more about careers, hear from working professionals, and discover opportunities to take dual credit, on-line, introductory courses in the health professions by logging on as a guest at http://www.isu.edu/ecp/uhhs/index.shtml.
**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 http://apply.isu.edu. The following additional items are needed:

1. Application Fee ($50, nonrefundable);
2. Documents showing English Proficiency (ex. 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;
6. Students transferring from another U.S. college or university are required to have the Transfer Verification form completed and submitted to the Office of International Admissions along with a copy of the current I-20 or DS-2019 forms issued to them by the school from which they wish to transfer.
7. Online Verification Form.

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,
- EnglishTOEFL-- iBT of 61 or above,
- IELTS -- overall band score of 5.5 or above, or a 5.0 on each of the sub-tests .

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 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/.

**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.
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.
4. Meeting English Proficiency requirements.

We do not require SAT or ACT scores for admission. However, we strongly encourage our students to take these. However, 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,
2. Composite score of at least 20 on ACT or a 1000 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.

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,
- 68 on the COMPASS writing test.

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

**International Transfer Student Admission Requirements**

1. International students who have completed less than 2 semesters of full-time study (less 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 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.

2. 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 principal, 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 refer to colleges, universities and technical institutions.

3. 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.

4. All non-English documents must be translated by a certified translator.

5. 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. For evaluations, Idaho State University recommends:

   World Education Services - http://www.wes.org 212-966-6311
   Global Credential Evaluators Inc. - http://gceus.com/contact 512-528-0908
   Educational Credential Evaluators - http://www.ece.org 414-289-3400

In order for an evaluation to be considered official, it must come to us directly from the evaluation service.

6. 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 at 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.

*Note: Based on academic merit and availability, new entering International students may be considered for non-resident fee waiver scholarships worth approximately $11,800 per year. For more information, contact: scholar@isu.edu*

**Estimated Costs**

### Undergraduate, Without Scholarship

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<tr>
<th>Fee</th>
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### Undergraduate, With Non-resident Tuition Scholarship

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<td>Other Expenses (Books, Supplies, and Medical Insurance)**</td>
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<td>$5,497.00</td>
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<tr>
<td>Total</td>
<td>$16,365.00</td>
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</table>

*Note: Academic year includes Fall and Spring semesters only. Summer Semester costs are not included in the estimates. Costs are subject to change; see [http://www.isu.edu/iso/cost.shtml](http://www.isu.edu/iso/cost.shtml) 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 Expenses ([http://www.isu.edu/finerv/studentfs.shtml](http://www.isu.edu/finerv/studentfs.shtml)) for 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** who 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 **Undergraduate Curriculum Council** who 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 Curriculum Council.

The **General Education Requirements Committee**, a subcommittee of the Undergraduate Curriculum Council, who 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** who 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** who 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 8 of the 9 General Education Objectives (p. 47). Graduation requirements regarding credits, grades, and residence are common to all bachelor’s degrees and are described in the Applying to Graduate (p. 64) section of this catalog.
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 Core Objective areas as outlined below. All students must meet Objectives 1 through 6, Objective 9 and choose to meet either Objective 7 or 8.

If a student does not meet the minimum credits required (36) once all 9 Core Objective areas have been met, the student must complete additional coursework from any of the outlined Core Objective areas to meet the 36 credit minimum.

Objective 1, Written Communication:

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

Upon completion of a course 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.

Courses that satisfy Objective 1:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>HONS 1101</td>
<td>Honors Humanities I</td>
<td>3</td>
</tr>
</tbody>
</table>

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 at least five (5) of the following competencies.

• Research, discover, and develop information resources and structure verbal messages to increase knowledge and understanding.
• Research, discover, and develop evidence-based reasoning and persuasive appeals for influencing attitudes, values, beliefs, or behaviors.
• Understand interpersonal rules, roles, and strategies in varied contexts.
• Effectively listen and adapt verbal messages to the personal, ideological, and emotional perspectives of the audience.
• Employ effective verbal and nonverbal behaviors that support communication goals.
• Effectively recognize and critically evaluate the reasoning, evidence, and communication strategies of self and others.

One course satisfies the objective:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1123</td>
<td>Mathematics in Modern Society</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1127</td>
<td>The Language of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1130</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2256</td>
<td>Structure of Arithmetic for Elementary School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2257</td>
<td>Structure of Geometry and Probability for Elementary School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2216</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>RCET 1372</td>
<td>Calculus for Advanced Electronics</td>
<td>4</td>
</tr>
</tbody>
</table>

For further information about mathematics prerequisites and placement, see Placement in Mathematics (p. 54).

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1110</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1115</td>
<td>Major Themes in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1126</td>
<td>Art of Film I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2257</td>
<td>Survey of World Literature I Beginnings through 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2258</td>
<td>Survey of World Literature II 17th Century to Present</td>
<td>3</td>
</tr>
<tr>
<td>HONS 1102</td>
<td>Honors Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1101</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1103</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>TGE 1257</td>
<td>Applied Ethics in Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fine Arts**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 1100</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 1101</td>
<td>Survey of Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1102</td>
<td>Survey of Art History II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2210/CMP 2250</td>
<td>History and Appreciation of Photography</td>
<td>3</td>
</tr>
<tr>
<td>DANC 1105</td>
<td>Survey of Dance</td>
<td>3</td>
</tr>
<tr>
<td>DANC 2205</td>
<td>Dance in the Modern Era</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1100</td>
<td>Introduction to Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1106</td>
<td>American Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1108</td>
<td>The World of Music</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 1109</td>
<td>Survey of Jazz</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1101</td>
<td>Survey of Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>

**Foreign Languages**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/SHOS 1101</td>
<td>Elementary Shoshoni I</td>
<td>4</td>
</tr>
<tr>
<td>ANTH/SHOS 1102</td>
<td>Elementary Shoshoni II</td>
<td>4</td>
</tr>
<tr>
<td>ARBC 1101</td>
<td>Elementary Arabic I</td>
<td>4</td>
</tr>
<tr>
<td>ARBC 1102</td>
<td>Elementary Arabic II</td>
<td>4</td>
</tr>
<tr>
<td>CHNS 1101</td>
<td>Elementary Chinese I</td>
<td>4</td>
</tr>
<tr>
<td>CHNS 1102</td>
<td>Elementary Chinese II</td>
<td>4</td>
</tr>
<tr>
<td>CSD 1151</td>
<td>American Sign Language I</td>
<td>3</td>
</tr>
<tr>
<td>CSD 1152</td>
<td>American Sign Language II</td>
<td>3</td>
</tr>
<tr>
<td>FREN 1101</td>
<td>Elementary French I</td>
<td>4</td>
</tr>
<tr>
<td>FREN 1102</td>
<td>Elementary French II</td>
<td>4</td>
</tr>
<tr>
<td>GERM 1101</td>
<td>Elementary German I</td>
<td>4</td>
</tr>
<tr>
<td>GERM 1102</td>
<td>Elementary German II</td>
<td>4</td>
</tr>
<tr>
<td>JAPN 1101</td>
<td>Elementary Japanese I</td>
<td>4</td>
</tr>
<tr>
<td>JAPN 1102</td>
<td>Elementary Japanese II</td>
<td>4</td>
</tr>
<tr>
<td>LANG 1101</td>
<td>Elementary Foreign Language I</td>
<td>4</td>
</tr>
<tr>
<td>LANG 1102</td>
<td>Elementary Foreign Language II</td>
<td>4</td>
</tr>
<tr>
<td>LATN 1101</td>
<td>Elementary Latin I</td>
<td>4</td>
</tr>
<tr>
<td>LATN 1102</td>
<td>Elementary Latin II</td>
<td>4</td>
</tr>
<tr>
<td>RUSS 1101</td>
<td>Elementary Russian I</td>
<td>4</td>
</tr>
<tr>
<td>RUSS 1102</td>
<td>Elementary Russian II</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 1101</td>
<td>Elementary Spanish I</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 1102</td>
<td>Elementary Spanish II</td>
<td>4</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1100</td>
<td>Concepts Biology Human Concerns and Concepts Biology Human Concerns Lab (designed for non-science, non-health related majors) L</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab (designed for students preparing for majors in science, pre-medical fields, and health related professions) L</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter L</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1102 &amp; CHEM 1103</td>
<td>Introduction to Organic and Biochemistry and Introduction to General Organic and Biochemistry Laboratory L</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab L</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1112 &amp; 1112L</td>
<td>General Chemistry II and General Chemistry II Lab L</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 1100 &amp; 1100L</td>
<td>The Dynamic Earth and The Dynamic Earth Lab (this is the lab for students in Geoscience majors) L</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 1101 &amp; 1101L</td>
<td>Physical Geology and Physical Geology Lab L</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Laboratory L</td>
<td>4</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1100</td>
<td>General Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1100</td>
<td>Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 1110</td>
<td>Education and Schooling in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1111</td>
<td>US History I to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1112</td>
<td>US History II 1865 to present</td>
<td>3</td>
</tr>
<tr>
<td>IS 2203</td>
<td>Introduction to International Organizations</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1101</td>
<td>Introduction to United States Government</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics ^L</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1101</td>
<td>Elements of Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1113</td>
<td>General Physics I Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1114</td>
<td>General Physics II Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1152</td>
<td>Descriptive Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1153</td>
<td>Descriptive Astronomy Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2212</td>
<td>Engineering Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2214</td>
<td>Engineering Physics II Laboratory ^L</td>
<td>1</td>
</tr>
</tbody>
</table>

^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 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, critically, 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; and
- Effectively articulate the results of a thinking process.

Courses satisfying Objective 7:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/L</td>
<td>Nature of Language</td>
<td>3</td>
</tr>
<tr>
<td>LANG 1107</td>
<td>Nature of Language</td>
<td>3</td>
</tr>
<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1118</td>
<td>US History and Culture</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1120</td>
<td>Global History Since 1500</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1181</td>
<td>Informatics and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2201</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2250</td>
<td>Contemporary Moral Problems</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2202</td>
<td>Introduction to Politics Critical Thinking and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2248</td>
<td>Critical Analysis of Social Diversity</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1118</td>
<td>Oral Interpretation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2251</td>
<td>Fundamentals of Acting</td>
<td>3</td>
</tr>
</tbody>
</table>

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; and
- Use information/data effectively to accomplish a specific purpose.

Courses satisfying Objective 8:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics ^L</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1101</td>
<td>Elements of Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1113</td>
<td>General Physics I Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1114</td>
<td>General Physics II Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1152</td>
<td>Descriptive Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1153</td>
<td>Descriptive Astronomy Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2212</td>
<td>Engineering Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Laboratory ^L</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2214</td>
<td>Engineering Physics II Laboratory ^L</td>
<td>1</td>
</tr>
</tbody>
</table>

^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 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; and
- Apply knowledge of diverse cultures to address contemporary or historical issues.

Courses satisfying Objective 9:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/SHOS 2201</td>
<td>Intermediate Shoshoni I</td>
<td>4</td>
</tr>
<tr>
<td>ANTH/SHOS 2202</td>
<td>Intermediate Shoshoni II</td>
<td>4</td>
</tr>
<tr>
<td>ANTH/ENGL 2212</td>
<td>Introduction to Folklore and Oral Tradition</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2237</td>
<td>Peoples and Cultures of the Old World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2238</td>
<td>Peoples and Cultures of the New World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2239</td>
<td>Latino Peoples and Cultures</td>
<td>3</td>
</tr>
<tr>
<td>ARBC 2201</td>
<td>Intermediate Arabic I</td>
<td>4</td>
</tr>
<tr>
<td>ARBC 2202</td>
<td>Intermediate Arabic II</td>
<td>4</td>
</tr>
<tr>
<td>CHNS 2201</td>
<td>Intermediate Chinese I</td>
<td>4</td>
</tr>
<tr>
<td>CHNS 2202</td>
<td>Intermediate Chinese II</td>
<td>4</td>
</tr>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2208</td>
<td>Cultures of the Spanish Speaking World</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2209</td>
<td>Cultures of East Asia</td>
<td>3</td>
</tr>
<tr>
<td>CSD 2210</td>
<td>Human Communication, Differences, and Disorders through Literature and Media</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2204</td>
<td>Families Community Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2210</td>
<td>American Cultural Studies</td>
<td>3</td>
</tr>
<tr>
<td>FREN 2201</td>
<td>Intermediate French I</td>
<td>4</td>
</tr>
<tr>
<td>FREN 2202</td>
<td>Intermediate French II</td>
<td>4</td>
</tr>
<tr>
<td>GERM 2201</td>
<td>Intermediate German I</td>
<td>4</td>
</tr>
<tr>
<td>GERM 2202</td>
<td>Intermediate German II</td>
<td>4</td>
</tr>
<tr>
<td>HIST 2201</td>
<td>Women In U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2249</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2254</td>
<td>Middle Eastern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2255</td>
<td>African History and Culture</td>
<td>3</td>
</tr>
<tr>
<td>IS 2202</td>
<td>The World Today:Introduction to Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>JAPN 2201</td>
<td>Intermediate Japanese I</td>
<td>4</td>
</tr>
<tr>
<td>JAPN 2202</td>
<td>Intermediate Japanese II</td>
<td>4</td>
</tr>
<tr>
<td>LATN 2201</td>
<td>Intermediate Latin I</td>
<td>4</td>
</tr>
<tr>
<td>LATN 2202</td>
<td>Intermediate Latin II</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 2210</td>
<td>Introduction to Asian Philosophies</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 2201</td>
<td>Intermediate Russian I</td>
<td>4</td>
</tr>
<tr>
<td>RUSS 2202</td>
<td>Intermediate Russian II</td>
<td>4</td>
</tr>
<tr>
<td>SOC 2201</td>
<td>Introduction to Gender and Sexuality Studies</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 2201</td>
<td>Intermediate Spanish I</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 2202</td>
<td>Intermediate Spanish II</td>
<td>4</td>
</tr>
</tbody>
</table>

*Credit by CLEP or other language exam does not fulfill Objective 9, the Cultural Diversity Objective.
Degree Requirements

Idaho State University Resident Credit Requirements

- Students earn “resident credits” for credit-bearing Idaho State University courses.
- For the Associate Degree, at least 16 credits in the major area of study must be resident credits, or 16 of the last 24 credits applied to the degree must be resident credits, as defined above.
- Of the last 50 credits applied to a bachelor’s degree, 32 must be resident credits, as defined above.
- At least 16 upper division credits required for the major must be resident credits, as defined above and approved by the department.
- At least 6 credits required for the minor must be resident credits, as defined above and approved by the department.
- Additional resident credit is granted as specified in the “Alternative Credit Opportunities” section of this catalog.

Certain pre-professional curricula allow completion of the fourth year in a professional school. In these cases, the last 32 credits of work taken before transfer to the professional school must be Idaho State University resident credits, as defined above.

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

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. 35)” in the About Idaho State University section of this catalog).

Bachelor’s Degree Credit Requirements

At least 120 undergraduate credits are required for graduation with a bachelor’s degree, although some specific degrees and majors may require more to fulfill all major requirements. At least 36 of the credits counted toward graduation must be in upper division courses carrying 3000 or 4000 numbers. Sixteen of these credits must be earned in courses approved by department of the student’s major concentration.

Of the credits transferred from a junior college, no more than half the number required for graduation in a given four-year curriculum or the first four years of a longer program may be applied to meet the requirements of the curriculum. (70 credits will be allowed for Idaho junior college transfer students.) Transferred courses with grades of D may be used to meet course requirements for graduation unless the department in which the student is majoring requires that the courses be retaken. The department may refuse the application toward graduation of any transfer course in which the student has received a D grade.

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

- 48 credits by examination*
- 30 credits in experiential learning*
- 16 credits of correspondence courses*
- 8 credits from Professional Development workshop courses.
- 8 credits of electives from an Idaho State University or transfer Professional Technical program.

*See Alternative Credit Opportunities (p. 69) in the Academic Information section of this catalog for specific information.

Not more than a total of 64 credits may be counted from the above areas.

- 30 credits in business or courses commonly available in a school of business unless the student is earning a Bachelor of Business Administration.
- 8 credits in organized music (Music majors may count 8 credits of organized music as free electives in addition to 50 credits)
- 8 credits in nonsectarian courses in religious education
- 8 credits in physical activity courses (including all PEAC courses, DAAC courses, and MSL 1110 /PEAC 1110)
- 8 credits in speech and drama activity
- 4 credits in auto-tutorial foreign language courses.

It is further stipulated that not more than a total of 12 credits from the last five of the above may be counted.

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 following stipulations:

1. Candidates for bachelor’s degrees must use a catalog in effect the year that they were accepted into their major program or any later year. For majors without a formal acceptance process, the choice of catalog year begins with the year in which the student first files an intent to major in that field. For students who change majors, it begins with the year in which they changed majors.
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 or program director.
4. Students with a gap in enrollment at the university for three years or more from the date of last attendance must meet degree requirements as outlined in the catalog in effect at the date of their re–enrollment, degree conferral date, or any subsequent catalog.
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.

Regardless of the catalog the student chooses, deviations may be required for accreditation, licensing, or State Board of Education mandates.

Grade Requirements

An Idaho State University grade point average of 2.0 or higher is required for graduation. Certain allowances in the calculation of the average may be possible when a curriculum is changing or courses are repeated.

In addition, a grade point average of at least 2.0 is required for all courses taken at Idaho State University and those required by the department in which the major or minor is sought.

Individual departments may require a higher grade point average.
Other Information Related to Graduation

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.

Honors Designation at Graduation

Students who secure minimum grade point averages of 3.33 and also are in the top 10% of their respective college’s graduating class are designated as graduating with honors. Those in the top 5% are designated as graduating with high honors. See also the University Honors Program information within the Student Success Center (p. 12) section of this catalog.

Other Degree Policies

Second Associate Degree

A student may be granted a second associate degree after earning a first associate degree by meeting the following minimum requirements:

1. a minimum of 16 hours of department-approved work beyond the accumulated number of credits earned at the time of completion of the first degree;
2. satisfaction of upper and lower division 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., or A.A.&S.) earned in 1995 or later from a U.S. regionally accredited institution will be considered to have met Idaho State University’s General Education Requirements when seeking a second associate degree.

Second Bachelor’s Degree

A student may be granted a second bachelor’s degree after earning a first bachelor’s degree by meeting the following minimum requirements:

1. a minimum of 32 hours of department-approved work beyond the accumulated number of credits earned at the time of completion of the first degree;
2. satisfaction of upper division requirements in the major field as recommended by the department in which the second degree is to be granted;
3. satisfaction of lower division courses required by the department beyond the general education requirements fulfilled by the first degree.

A student who wishes to earn two degrees concurrently must meet the requirements set forth above for a second degree, and the General Education Requirements (once, not twice!) A student with a bachelor’s degree from a U.S. regionally accredited institution will be considered to have met Idaho State University’s General Education Requirements when seeking a second bachelor’s degree.

Majors and Minors

Majors

Each degree-seeking student admitted to Idaho State University will indicate their choice of major on their admissions application. Some majors require an 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.

Students who are undecided about their major should plan to declare a major before they have earned 58 credits. For assistance with choosing a major, contact the Career Center, 4th Floor Museum Building, (208) 282-2380, or Central Academic Advising, 3rd Floor Museum Building, (208) 282-3277.

Students wishing to change their major should contact the department that offers the major.

Minors

A minimum of 18 semester hours with a minimum grade point average of 2.0 is required in the minor concentration. Not all departments offer a minor. Those that do may require more than the minimum number of credits and they may specify some of the courses required. Consult departmental catalog entries for more information. The minor program at Idaho State University is optional for all students and more than one minor may be declared. If a student wishes to declare a minor, the student should consult with the appropriate department. A student declaring a minor must do so before or at the time of application for graduation.
Individualized Degree Programs

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

- Bachelor of Applied Science or Bachelor of Applied Technology
- Associate of Arts and Bachelor of Arts in General Studies
- Bachelor of Science in Health Science

**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 a committee.

The BAS degree includes the following credit requirements:

**Requirements for Robotics and Communication Systems Engineering Technology (3-year A.A.S)**

<table>
<thead>
<tr>
<th>Credit Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional-Technical credits applied toward the BAS Degree</td>
<td>76</td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>36</td>
</tr>
<tr>
<td>Academic Coursework (all upper division credits earned beyond coursework completed for A.A.S. degree)</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total Credits Required</strong></td>
<td><strong>130</strong></td>
</tr>
</tbody>
</table>

**Requirements for all Other ISU CTech A.A.S. Programs**

<table>
<thead>
<tr>
<th>Credit Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional-Technical credits applied toward the BAS Degree</td>
<td>up to 50</td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>36</td>
</tr>
<tr>
<td>Academic Coursework (all upper division credits)</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total Credits Required</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

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.

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 technical field.

After completing a minimum of 15 credit hours of BAS general education requirements and one semester of the technical program, the BAS student develops an individualized degree plan in consultation with both academic and technical advisors assigned to the student by the BAS committee chair 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 above described degree requirements. The degree plan and the goal statement must be approved by the BAS Committee.

**Bachelor of Applied Technology**

Fall 2016 is the last semester a student may declare the Bachelor of Applied Technology curriculum.

For information contact:

**College of Technology Student Services**

RFC Building (Bldg #48)
(208)282-3939
http://www.isu.edu/ctech STUDENTSERVICES/

**Bachelor of Arts in General Studies**

This is a non-specialist degree program designed to meet the needs of students interested in broadly-based education in the liberal arts. It provides greater flexibility and breadth in subject matter than provided by traditional degree programs. See the Associate Dean for Social and Behavioral Sciences in the College of Arts and Letters for advising in this program.

**This degree requires completion of the following program:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 of the 9 General Education Objectives</td>
<td>36</td>
</tr>
<tr>
<td>Upper division courses in the fine arts and humanities and/or social and behavioral sciences</td>
<td>20</td>
</tr>
<tr>
<td>Upper division credits from programs in the College of Arts and Letters, College of Business</td>
<td>20</td>
</tr>
<tr>
<td>College of Education, College of Science and Engineering, or Division of Health Sciences</td>
<td>20</td>
</tr>
<tr>
<td>Electives from across the university</td>
<td>44</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

**Associate of Arts in General Studies**

This degree requires completion of the General Education Requirements (p. 47) as outlined for the Bachelor of General Studies degree (above); 3 additional lower division credits in the arts and humanities; 3 additional lower division credits in the social and behavioral sciences; 6 additional lower division credits beyond the General Education Requirements from the Colleges of Arts and Letters, Business, Education, Science and Engineering, or the Division of Health Sciences; and elective credits from all across the university (please consult the restrictions on graduation credits from certain groups, as defined under Credit Requirements in the Applying to Graduate (p. 64) section of the catalog) to total 64 credit hours.
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 English Composition Plus
Placement: IELTS 7.0 – 7.5 or TOEFL 94 - 109 (iBT), ACT English below 18, or SAT 440 or lower, 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 1101 English Composition
Placement: IELTS 8.0 – 9.0 or TOEFL 110 – 120 (iBT), ACT English 18 - 24, Compass 68 - 94, or SAT 450 - 560 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 Critical Reading and Writing
Placement: Students with an ACT English score of 25-30 or an SAT score of 570-690 receive 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, unless they already have a transcripted grade for ENGL 1101. The Compass Test cannot be used to replace an earned grade in a course for purposes of GPA calculation. For questions regarding ACT scores over 30 or SAT scores of 700 or higher, contact the Department of English and Philosophy: (208) 282-2478.

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.

* 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.
Mathematics

All mathematics courses except MATH 0015 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, or Compass mathematics placement exam. For placement purposes, prerequisite coursework or placement examinations must have been taken within the last seven years.

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, or Compass placement examinations (Objective 3 courses are bolded):

<table>
<thead>
<tr>
<th>MATH</th>
<th>ACT</th>
<th>SAT</th>
<th>Compass</th>
</tr>
</thead>
<tbody>
<tr>
<td>0015(^1)</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>0025(^2)</td>
<td>16</td>
<td>390</td>
<td>46 on Prealgebra (MAPL 1)</td>
</tr>
<tr>
<td>1108(^3)</td>
<td>17</td>
<td>420</td>
<td>35 on Algebra (MAPL 2)</td>
</tr>
<tr>
<td>1123, 1127(^4)</td>
<td>19</td>
<td>460</td>
<td>46 on Algebra (MAPL 2)</td>
</tr>
<tr>
<td>1130, 1143, 1147, 1153(^5)</td>
<td>23</td>
<td>540</td>
<td>61 on Algebra (MAPL 2)</td>
</tr>
<tr>
<td>1144, 1160, 2256, 2257(^6)</td>
<td>27</td>
<td>620</td>
<td>61 on Algebra (MAPL 3)</td>
</tr>
<tr>
<td>1170(^7)</td>
<td>29</td>
<td>650</td>
<td>51 on Trigonometry (MAPL 4)</td>
</tr>
</tbody>
</table>

\(^1\) 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.
\(^3\) A student must pass MATH 0025 or achieve one of the listed test scores to take MATH 1108.
\(^4\) 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.
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://transcripts.isu.edu. 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 are 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 .3 and minus (-) decreases the grade’s point value by .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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
<td>Excellent Performance</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Good Performance</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td>Adequate Performance</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>Marginal Performance</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>

Courses in which any A, A-, 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-, D+, D, D-, or F is considered failing for students pursuing graduate level programs or degrees.

The plus (+) and minus (-) grading system is in effect for all new freshmen and transfer students, all returning former students who have not been enrolled at Idaho State University for five years, and any student starting a degree or certificate program. Students who are not yet subject to the +/- grading system may elect to be included by completing paperwork, in person, at the Office of the Registrar in Pocatello or Student Services Offices in Idaho Falls, Twin Falls, or Meridian. A student’s election of the +/- grading is final and cannot be reversed.

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/NO-PASS 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 (http://www.isu.edu/areg/forms/ScheduleChangeCard.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/NO-PASS
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 religion, 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 or a U. 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://www.isu.edu/areg/acadclnd.shtml). Information on
withdrawing from classes can be found in the Withdrawal Procedures (p. 61)
section of this catalog.

Midterm Grades
Instructors are requested to report unsatisfactory grades at midterm, including D,
F, U, NP (not passing), X (no basis to grade).

Faculty can choose to report satisfactory grades at their own discretion. 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.

Credits and Grades for Transfer Courses
When students transfer credit to Idaho State University, the university reserves
the right to reclassify credit designated as correspondence, extension, credit
by examination and repeated credit according to its own policy governing
the acceptance and limitations of such credit. Grades transferred from other
institutions will be converted to the equivalent grades at Idaho State University
by the registrar. Where there is a question as to whether transferred courses
satisfy specific departmental requirements, the head of the department concerned
will make the interpretation.

Transfer students may be required to repeat transfer courses in which a grade
equivalent to a D or F was received.

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 Standing

Good Academic Standing

Students are considered to be in Good Academic Standing at Idaho State University until their Idaho State University GPA places them on academic probation. At the end of any semester, undergraduate students may be placed on probation if the cumulative Idaho State University grade point average (GPA) does not meet a minimum of 2.0. 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.

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 limited to attempting 13 credits for the next semester of attendance, are required to complete the Online Probation Workshop (http://isu.edu/advising/nosearch/probation), and are expected to meet with their academic advisor of record prior to registering for classes.

Undergraduate students on Academic Warning who do not earn a 2.0 semester GPA (and whose cumulative ISU GPA is less than 2.0) will be placed on Probation One. Students on Probation One are limited to attempting 9 credits for the next semester of attendance, are required to complete the Online Probation Workshop (http://isu.edu/advising/nosearch/probation), and are expected to meet with their academic advisor of record prior to registering for classes.

Undergraduate students on Probation One who do not earn a 2.0 semester GPA (and whose cumulative ISU GPA is less than 2.0) will be placed on Probation Two. Students on Probation Two are limited to attempting 6 credits for the next semester of attendance, are required to complete the Online Probation Workshop (http://isu.edu/advising/nosearch/probation), and are expected to meet with their academic advisor of record prior to registering for classes.

Undergraduate students on Probation Two who do not earn a 2.0 semester GPA (and whose cumulative ISU GPA is less than 2.0) will be dismissed from the university.

Non-Degree Seeking Status

Each non-degree-seeking student admitted to Idaho State University will declare himself/herself as such by selecting the code for this non-degree-seeking status on the application for admission. Other students attend classes as non-degree-seeking students without being admitted to the university. In either case, the student may change his/her status to that of a degree-seeking student by complying with admissions criteria for degree-seeking students (detailed in the Undergraduate Admission (p. 39) 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.

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.

1199, 2299, 3399, 4499 Experimental Courses 1-6 credits. These are courses 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.


Course Numbering

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

Courses numbered 1100-2299 are lower division courses, while courses numbered 3300-4499 are upper division courses.

Courses numbered 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
W = Web (Internet) interactive course scheduled in conjunction with Idaho State University semester(s); contact department for details

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.

### 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, 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.

### 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:

1. **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 the Academic Advising Center. Petitions must be accompanied by relevant documentation from appropriate sources and a thoughtfully prepared Readmission Statement. The RRB will be guided in its decision by evidence of academic potential and readiness to handle the curriculum in a satisfactory 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, ADA, or other ISU resources, and/or participating in specified study labs or help groups. The deadline for petitions is August 1st for Fall semester and December 1st for Spring semester. Decisions reached by the RRB are final.

2. **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.

3. **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. 21) 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. 21) for dates):**

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

To withdraw from the university (withdraw from all classes) prior to the deadline, the student may use BengalWeb (https://bengalweb.isu.edu/cp/home/displaylogin) 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://www.isu.edu/areg) for assistance. Students are encouraged to meet with an advisor before withdrawing completely.

**After Withdrawal Deadline (see Academic Calendar (p. 21) for dates):**

After the deadline, all withdrawals are handled by petition to the dean of the college in which the student is enrolled. (College of Technology students should contact the Student Services Office (http://www.isu.edu/ctech/studentservices).)

The dean will follow the same procedure used in the petitioning process for considering extraordinary academic issues.

**Medical Withdrawal Policy**

*At the time of publication, the withdrawal policy was under review; it remains subject to change.

**Voluntary (Student-Initiated) Medical Withdrawal**

A medical withdrawal request must involve the student being ill or disabled from an illness, not the effects of another person’s illness. It is initiated in the same manner as other withdrawals, as noted above. Only complete withdrawals from the university are eligible to be considered for a medical withdrawal.

To initiate a medical withdrawal before the complete withdrawal deadline (see the Academic Calendar (http://www.isu.edu/areg/acadclnd.shtml)), a student first needs to completely withdraw from all classes through the Office of the Registrar (via a paper form or BengalWeb (https://bengalweb.isu.edu/cp/home/displaylogin)). When that is done, the student may then apply for a medical withdrawal through the Student Health Center by completing a Medical Withdrawal Application form. This form may be obtained from the Student Health Center, the Office of the Registrar, the Counseling and Testing Center, the Student Services Office in the College of Technology, and the outreach offices of Idaho Falls, Twin Falls, and Meridian. It is also available on ISU’s Student Health Center (http://www.isu.edu/stuhth/withdraw.shtml) website. Completed forms should be submitted to the Student Health Center within two weeks (10 working days) of the date of complete withdrawal. The application must include a narrative summary written by the student requesting the medical withdrawal as well as medical documentation from a physician or counselor describing the problem and their recommendations that withdrawal due to illness is necessary. The Medical Withdrawal Committee then reviews the completed application and determines medical withdrawal eligibility.

**Note:** For refund information, see ISU’s Refund Policy and Refunds for Exceptional Circumstances Policy in the Expenses (p. 8) section of this catalog. If you wish to initiate an appeal for refund of fees, please contact Financial Services at 282-2287.

If the complete withdrawal deadline (see Academic Calendar (p. 21)) has passed, a student can still seek a medical withdrawal designation. First, the student fills out a petition for hardship withdrawal through the dean’s office of the college in which the student is enrolled (Arts and Letters for those students not yet affiliated with any college). If the dean (or designee) grants the student a hardship withdrawal, the student may then pursue a medical withdrawal designation as outlined in the above paragraph. The dean (or designee) may choose instead to sign a referral allowing the Student Health Center to examine the evidence (always medically related) and determine whether a withdrawal is warranted. Only if a hardship withdrawal is granted, or a referral is signed by the dean’s office, will the Medical Withdrawal Committee consider a request for a medical withdrawal.

**The Medical Withdrawal Committee**

The Medical Withdrawal Committee may include the director of the Student Health Center (or designee), the director of the Counseling and Testing Center (or designee), the university controller (or designee), the associate dean of Student Affairs (or designee), and/or the director of the ADA and Disabilities Resource Center (or designee).

**Appeal of Denial of Medical Withdrawal**

If the medical withdrawal is denied, the student may appeal the decision by written request to the vice president for Student Affairs. The appeal must be received within one month of the date of denial. The vice president’s (or designee’s) decision is final.

**Medical Readmission**

Students who have withdrawn for medical reasons may be required to petition the University Medical Withdrawal Committee for readmission. The decision to require a petition for readmission is based on need for further documentation that the medical condition has been adequately treated and that any necessary accommodations have been prepared to enhance the future academic success of the student. The decision is made at the time that the medical withdrawal is granted. This decision will be included in the letter of notification to the student that the medical withdrawal has been granted.

Students may forward their written petition for readmission to the Medical Withdrawal Committee via the Student Health Center staff. The granting readmission decision is based upon consideration of (1) reports of treatment, (2) letters of recommendation, and in some instances, (3) a personal interview with the medical director.

**Appeal of Denial of Readmission**

In the event of denial of readmission, the student may appeal to the vice president for Student Affairs. A written appeal (a letter from the student explaining the circumstances) must be received in the vice president for Student Affairs’ Office within two weeks (10 working days) of receipt of notification of denial of readmission. The vice president’s (or designee’s) decision is final.
Mandatory Medical/Psychiatric Withdrawal

The directors of the University Counseling and Testing Services and the Student Health Center are authorized to order a mandatory medical or psychiatric withdrawal in those situations where there is reason to believe that a student is a substantial threat to him/herself or interferes with the welfare of other members of the university or the education process of the institution. These directors may require immediate withdrawal if there appears to be a substantial imminent threat. Either director may request that the student be professionally evaluated by a physician, psychologist, or psychiatrist. The student shall be notified in writing of initiation of the withdrawal process.

If a psychological/psychiatric evaluation is required and the student does not comply within a reasonable time or refuses to comply, mandatory withdrawal may be ordered by either director. The responsible director shall submit a written report to the Medical Withdrawal Committee and the vice president for Student Affairs summarizing the need for mandatory withdrawal and the reasons for the action. The student and the director will have the opportunity to present information to the Medical Withdrawal Committee. The Medical Withdrawal Committee shall convene at the earliest reasonable time for final determination of disposition. If the physician ordering the withdrawal is also on the Medical Withdrawal Committee, another physician from the Student Health Center or the Center director will be appointed to sit on the committee for that case.

In the event that mandatory withdrawal is ordered, the student may appeal to the vice president for Student Affairs. A request for an appeal must be filed in writing to the vice president for Student Affairs within two weeks of receipt of notification of mandatory withdrawal.

Other Policies

Academic Study Day Policy

The university annual calendar includes two academic study days each semester. The academic study days are scheduled during the two calendar days directly following Closed Week and directly preceding Final Examination Week. Saturday classes are exempt from the Academic Study Day Policy. When the last two calendar days directly following Closed Week fall on Saturday, Sunday, or both, those days will be designated as academic study days. No undergraduate classes are held during academic study days. For academic study days falling on Monday through Friday, faculty will schedule office hours.

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, except by permission of the Deans’ Council. No examination shall be longer than the scheduled time. Special examinations may be arranged for individual students within the examination period.

A student who is absent from a regular final examination without valid excuse receives an F on the exam. If the excuse is valid and the work of the semester is satisfactory, the student receives an Incomplete, which may be removed by taking a special final examination.

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.
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
reginfo@isu.edu

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 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 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 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: www.isu.edu/areg/acadclnd.shtml or from the ISU homepage at 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 www.isu.edu, choose “Quick Links;” then choose “Class Schedule.” Enrolled students should access the class schedule through BengalWeb. Instructions for using the system are at http://www.isu.edu/tigeri/bengalweb/ClassScheduleStudents.shtml.

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: www.isu.edu/areg/regtime.shtml.

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

In addition to departmental requirements provided elsewhere in this catalog, the requirements for graduation from Idaho State University are in several broad categories, each of which is detailed below:

1) Graduation Application
2) Credit Requirements
3) Catalog Requirements
4) Grade Requirements

Degrees, diplomas, or certificates may not be granted unless all requirements are fulfilled. A certificate or degree awarded in error, or upon fraudulent claims, will be withdrawn immediately and the student record corrected accordingly.

Graduation Application

Students planning to graduate should complete a graduation application no less than one semester before all requirements are completed.

Graduation applications for December and May candidates will not be accepted after mid term week of the student’s graduation semester.

Graduation applications for August candidates will not be accepted after the last day of spring semester.

Students will be notified by the Registrar’s Office of any university course or credit deficiencies. Students must consult their advisors about departmental requirements. The graduation application must be approved by the student’s major department chairperson and/or the college dean before the degree will be granted.

How To Apply

Academic Undergraduate Students

- In person: Contact the Office of the Registrar, located in the Museum Building, Room 318, at (208) 282-4225 or (208)-282-4874.
- On-line: https://bengalweb.isu.edu

College of Technology Students

- In person: Student Services Office, located in the RFC Building, Room 184, at (208) 282-2622

Graduate Students

- In person: Contact the Graduate School, located in the Museum Building, Room 401, at (208) 282-2229
- On-line: http://www.isu.edu/graduate

Graduation/Diploma Fee

Both undergraduate and graduate students are required to pay a $20.00 graduation/diploma fee.

Payment Options

- Pay by credit card at https://bengalweb.isu.edu
- Pay in person:
  
  Academic students:
  contact the Cashier’s Office (http://www.isu.edu/finserv/cashier.shtml)

  College of Technology students:

Additional Deadlines

Transfer Work

- All pending transfer work must be reported to the ISU graduation staff in the Office of the Registrar.
- Official transcripts with transfer work (including correspondence courses) must be received no later than four weeks after the date of graduation.

Incomplete Grades

- All incomplete (I) or in-progress (IP) grades received in ISU courses must be cleared prior to posting of degrees.
- Change of grade forms must be received in the Office of the Registrar no later than two weeks after the date of graduation.

Additional Information Website:

http://www.isu.edu/areg/gradApp.shtml#
The First Year Seminar course (ACAD 1102) assists first year students with their transition into the university. Students interact closely with instructors and participate in collaborative learning activities and exercises. Courses are co-instructed by a campus faculty or staff member and peer instructors. First Year Seminar is highly recommended for all first year students.

English for Speakers of Other Languages (ESOL)
The English for Speakers of Other Languages (ESOL) Program supports undergraduate and graduate students enrolled in academic and professional courses at Idaho State University. The program offers a wide variety of individual tutoring, as well as workshops and courses in idioms, special vocabularies, lecture comprehension, American culture, pronunciation, grammar, rhetorical styles and skills for conversation and discussion. There are also support services for international teaching assistants, an online tutorial for off-campus needs, and faculty workshops for responding to ESOL issues.

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 Orientation to University: 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 1110 Money Management: 1 semester hour.
Covers basic Management techniques including: credit, saving, budgeting, debt, food dollars, financial goals, and investing. This is an eight-week course. F, S

ACAD 1111 University Inquiry: 3 semester hours.
Introduces students to inquiry 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

ACAD 1115 Information Research: 1 semester hour.
Develops 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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
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 teaching techniques for peer instructors who will plan the syllabus and collaborate with their faculty/staff teaching partners in preparing for and teaching one section of ACAD 1102. Students will research and explore pragmatic applications of teaching, mentoring and leadership theories. May be repeated for a maximum of four credits. COREQ: PEER INSTRUCTOR IN ACAD 1102. 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 hour.
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

Central Academic Advising

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

Central Academic Advising is a service designed to assist first-year and undecided students in making academic decisions. Central Academic Advising provides information about campus resources, guidance in developing course schedules and degree plans, clarification of campus policies and procedures, and support in developing effective strategies for academic success.

Advisors also serve as a general resource for all Idaho State University students and faculty. Any student is welcome to contact Central Academic Advising for advising or referral. If students are unsure about whether an advisor has been assigned to them, they may contact Central Academic Advising for information.

Mandatory Advising

The Mandatory Advising program is required for academic degree seeking freshman students for the first two semesters of attendance at Idaho State University and for transfer students for the first semester of attendance. Students subject to mandatory advising must complete the Fundamentals of Advising and Registration (FAR) sessions that are coordinated by Central Academic Advising. Freshmen may contact any CAA office (http://www.isu.edu/advising/contact.shtml) to schedule a FAR session. The two freshman FAR sessions are available online at http://isu.edu/advising/nosearch/first_mad/; http://isu.edu/advising/nosearch/second_mad/. The transfer FAR session is only available online at http://isu.edu/advising/nosearch/transfer_mad/.

Mandatory Advising at Idaho State University is not intended to replace college or faculty advising.
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. To provide a challenging and imaginative curriculum;
2. To prepare students for a post-graduate education through seminars, individual research, and one-on-one interaction with faculty; and
3. To enrich the life of all honors students by fostering a spirit of ongoing inquiry and a love of learning.

The University Honors Program offers interdisciplinary, theme-driven course sequences in the humanities, social sciences, and natural sciences. They are designed for students who are motivated to develop their critical and creative thinking in a more personalized atmosphere than may be expected in normal lower division courses. These courses are offered in small classes (25 maximum enrollment) by interested 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 www.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.

Admission

Admission to the University Honors Program 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.

Student Progress

Students admitted to the Honors Program are required to maintain a cumulative grade point average of 3.25. Students must show evidence of continuous progress toward their degrees. Students dropping below the 3.25 requirement have one probationary semester to raise the GPA before facing dismissal from the program.

Interdisciplinary Seminars

University Honors Degree students are required to complete two upper division interdisciplinary seminar courses (HONS 3391, 1 credit, a repeatable course) during the junior and senior years. In general, at least one Honors seminar will be offered each semester.

Honors Contract Courses

In addition to the interdisciplinary seminars, each University Honors student must complete a minimum of 6 credits of Honors Contract courses in the student’s major or minor. 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, 3000- and 4000-level courses are available for Honors Contract credit, as designated by each department.

Capstone 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. The capstone project (3-6 credits) requires the 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.

Graduation from the University Honors Program

Members of the University Honors Program (UHP) can complete either an Honors Distinction or an Honors Degree. UHP students who complete 19 credits of honors coursework, including a 1 credit Seminar Honors (HONS 3391), graduate from the program with an Honors Distinction. Honors coursework can be accumulated from courses designated as Honors sections, including (but not restricted to) the Honors Humanities sequence (HONS 1101 and HONS 1102), or other courses with Honors-designated sections (e.g., ANTH 2237, BIOL 1101 and 1101L, CHEM 1111 and CHEM 1111L, CHEM 1112 and CHEM 1112L, COMM 1101, ECON 2201, PHIL 1101 and 1103, POLS 1101, and PSYC 1101). Honors Distinction is noted on the transcript at Commencement.

The Honors Degree requires a total of 32 Honors credits, which are accumulated through lower division Honors-designated courses (up to 24 lower-division Honors credits), completing two 1-credit Honors seminars (HONS 3391), at least 6 credits of upper division Honors Contract courses (3 of which may be thesis credits), and an Honors Project or Thesis (maximum of 6 thesis credits, one of which must be HONS 4493). Lower division Honors-designated credits are earned from the Honors Humanities sequence (HONS 1101 and HONS 1102), or other courses with Honors-designated sections (e.g., ANTH 2237, BIOL 1101 and 1101L, CHEM 1111 and CHEM 1111L, CHEM 1112 and CHEM 1112L, COMM 1101, ECON 2201, PHIL 1101 and 1103, POLS 1101, and PSYC 1101). The Honors Project or Thesis is completed under the supervision of a faculty member in the student’s major or minor. A thesis committee is formed that includes the faculty supervisor, another faculty member from the major (or minor), and a representative of the University Honors Program (UHP director or member of the Honors Advisory Committee). The Honors degree is noted on the diploma and transcript and at Commencement.

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
Contact Information

Please check http://www.isu.edu/honors for the current year’s core curriculum themes and additional information. Questions about the University Honors Program and courses may be directed to:

Director, University Honors Program
921 S 8th Avenue Stop 8010
Pocatello ID 83209-8010
(208) 282-4945
mailto:honors@isu.edu (honors@isu.edu)

University Honors Program Curriculum

Required Courses:

HONS 1101 Honors Humanities I: 3 semester hours.
A writing-intensive interdisciplinary course examining the relationships between the arts and letters from the Classical Age through the Enlightenment. Satisfies Objective 1 of the General Education Requirements. F

HONS 1102 Honors Humanities II: 3 semester hours.
A writing-intensive interdisciplinary course examining the relationships between the arts and letters from the Classical Age through the Enlightenment. Satisfies Objective 1 of the General Education Requirements. S

Together, the two courses above satisfy a General Education Objective

Honors Sections of the Following Courses:

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. S

HONS 4493 Honors Senior Thesis or Project: 1-3 semester hour.
Supervised by a committee of at least two faculty members and approved by the University Honors Program Director. DEPT 493H will be used when possible. May be repeated for up to 6 credits. PREREQ: Permission of Instructor and Honors Program Director. D

Courses

HONS 1101 Honors Humanities I: 3 semester hours.
A writing-intensive interdisciplinary course examining the relationships between the arts and letters from the Classical Age through the Enlightenment. Satisfies Objective 1 of the General Education Requirements. F

HONS 1102 Honors Humanities II: 3 semester hours.
A writing-intensive interdisciplinary course examining the relationships between the arts and letters from the Classical Age through the Enlightenment. Satisfies Objective 1 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
Alternative Credit Opportunities

Students at Idaho State University have the opportunity to earn undergraduate credit for prior learning through a wide variety of means:

- College Entrance Examination Board Advanced Placement Program (AP)
- College Level Examination Program (CLEP)
- Credit by Challenge Examination
- Credit for Military Service
- Credit through the Defense Activity for Non-Traditional Education Support (DANTES)
- Experiential Learning Assessment (ELA)
- Correspondence and Extended Learning Online Courses
- Study Abroad
- Individualized Degree Programs
- Cooperative Education Programs

A maximum of 32 credit hours granted through any combination of the means listed above may be counted toward an associate degree; a maximum of 64 credit hours may be applied to a baccalaureate degree. 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 and correspondence/distance learning, 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, such as Experiential Learning Assessment and Challenge, credit will be counted as non-resident credit.

An explanation of each program is given below. For additional information on these programs, contact:

The Office of the Registrar,
Museum Building Room 319
921 S 8th Ave Stop 8196
Pocatello, ID 83209-8196
(208) 282-2661

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.

The CEEB Advanced Placement Examinations are administered each May at most high schools. For more information about the tests, students should contact their Advanced Placement instructor or high school counselor. The tests and students’ ratings are sent to the university at the individual student’s request.

Advanced Placement Examination credit will not be posted on an official Idaho State University transcript to other agencies or institutions until the student is a registered Idaho State University student. 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. Contact the Office of the Registrar or academic departments for further information. An “S” grade is entered on the student’s record for credit earned in this way. Credit for AP examinations transferred from another institution is subject to evaluation based on the rules and regulations of Idaho State University. Please see http://www.isu.edu/areg/ for information as to what course credit will be given 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. A student may earn a maximum of 16 elective semester hours toward an associate degree, 32 elective semester hours toward a baccalaureate degree on the basis of the general examinations.

Scores on the general examinations range from 200 to 800. The point of test proficiency is fixed at 500 for the purpose of granting credit.

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. Students may earn a maximum of 48 semester credit hours by CLEP subject-area examination with department approval, and scores of 50 or higher are accepted for credit award.

An “S” grade is entered on a student’s record for credit hours earned through CLEP examinations. Credit for CLEP examinations transferred from another institution is subject to evaluation based on the rules and regulations of Idaho State University. 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.

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,
Gravelly Hall, 3rd Floor South
921 S 8th Ave Stop 8027
Pocatello, ID 83209-8027

Subject-Area CLEP Scores Required for Credit

Idaho State University will grant credit for approved CLEP exams and scores. Contact the Office of the Registrar or academic departments for further information.

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.
• Compass placement examinations are not challenge examinations.
• 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 change the 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.
• A student may complete a total of 24 credits by challenge examination toward an associate degree.
• A student may complete a total of 48 credits by challenge examination toward a baccalaureate degree.
• 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 for Military Service (Military Transcript Information)

Military credits will be evaluated after the student has applied for admission and furnished the Veterans’ Coordinator with official transcripts. Non-resident credit will be posted for military courses.

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. Only elective credits may be granted to those completing the general examinations, while subject-area CLEP examinations may satisfy specific objectives in the General Education Requirements. Refer to the College Level Examination Program above for details.

Correspondence and Extended Learning Online Courses

Many institutions offer correspondence courses. Those offered by Idaho State University via Independent Study in Idaho (ISI) are granted resident credit.

Independent Study in Idaho

PO Box 443225
Moscow ID 83844-3225
(208) 885-6641 or (877) 464-3246
Fax 208/885-5738
indepst@uidaho.edu
http://www.uidaho.edu/isi

Independent Study in Idaho was created in 1973 by the Idaho State Board of Education as a consortium of four accredited Idaho institutions led by the University of Idaho. Other consortium members include Boise State University (BSU), Idaho State University (ISU), and Lewis-Clark State College (LCSC). The ISI office is located at the University of Idaho North Campus Center in Moscow, Idaho. Each member institution of the ISI consortium is accredited by the Northwest Commission on Colleges and Universities (NWCCU), the region’s accrediting agency. High school courses are accredited by the Northwest Association of Accredited Schools (NAAS).

Independent Study in Idaho delivers over 100 college undergraduate, graduate, and high school distance education courses in online and print-based formats in over 30 subject areas to more than 1,600 students each year. Independent Study in Idaho college courses parallel their on-campus counterparts in content and completion standards. People from all walks of life, worldwide, take ISI courses to begin college programs early, resolve on-campus class-time conflicts, satisfy prerequisites, pursue professional development, and for personal enrichment. Courses are self-paced and available anytime, anywhere; students have one full year to complete ISI courses, or may purchase a time extension. Idaho residency is not required. Independent Study in Idaho courses carry semester-hour credit from one of the four consortium institutions and may be applied toward a degree at one of the consortium institutions or transferred to other institutions that accept ISI credits.

On average, ISI students may expect to spend at least 45 hours of scholarly activity per course credit to successfully complete a course. Upon course completion, a student may request a transcript of the credits from the Office of the Registrar or website of the credit-granting institution.

Experiential Learning Assessment

Experiential Learning Assessment (ELA) is an avenue by which a student may be awarded undergraduate credit for experiential learning. 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. The academic department in which credit is being requested assesses the portfolio and makes credit recommendations to the dean of their college. Idaho State University allows a maximum of 15 credits toward an associate degree, 30 credits toward a baccalaureate degree through this evaluation process.

To receive credit awarded through ELA, the student must have completed at least 9 semester credit hours in Idaho State University coursework with a minimum of 2.0 GPA and must be enrolled the semester in which credit is awarded. ELA credit is available only for those academic subjects offered at Idaho State University.

Idaho State University follows Northwest Commission on Colleges and Universities (NWCCU) policies 2.C.3 and 2.C.7 in awarding credit for prior experiential learning.

Study Abroad

The Idaho State University Office of International Programs and Services 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.
Course work 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 Office of International Programs and Services 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 at ipomail@isu.edu.

Students may register for Study Abroad credits after their program is approved by an advisor and the Office of International Programs and Services. 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
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 Division of Health Sciences (p. 234).

Dental Education

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. 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.

Medical Education

Certification of Idaho Residency

The cooperative medical education programs described below (WWAMI and University of Utah) require a Certification of Residency (that is, documentation that the person is a legal resident of Idaho). This certification is obtained at the following addresses for each of these programs:

WWAMI (University of Washington):

Director of Admissions
University of Idaho
Moscow, ID 83843

University of Utah Contact:

Office of the Registrar
921 S 8th Ave. Stop 8196
Pocatello, ID 83209-8196

WWAMI (Washington/Wyoming/Alaska/Montana/Idaho) Regional Medical Education Program

This program is designed to enhance the training capability of the University of Washington School of Medicine by using facilities of Washington State University, University of Wyoming, University of Alaska, Montana State University and the University of Idaho. Currently 20 Idaho residents are accepted into the WWAMI program each year. For further information, contact:

Coordinator, WWAMI Medical Program University of Idaho
Moscow ID 83843

or

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

University of Utah School of Medicine

Each year eight Idaho residents are admitted to this medical education program through a cooperative agreement between Idaho and Utah. Idaho also provides a support fee to the University of Utah for each Idahoan admitted to the program under this agreement. For further information, contact:

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

Oak Ridge Associated Universities

Since 1993, students and faculty of Idaho State University have benefitted 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 (http://see.orau.org), or by calling either of the contact persons below.

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 http://orise.orau.gov.

Veterinary Medicine

Washington State University Regional Program in Veterinary Medicine

A cooperative effort between Washington and Idaho, this program is centered at the College of Veterinary Medicine at Washington State University. Depending on legislative appropriations, a certain number of Idaho residents (usually 11) are admitted to the program each year; Idaho provides a support fee to the program for each Idaho student admitted. Certification of Idaho residency is obtained at the following address:

Residency Officer
University of Idaho
Moscow, ID 83844-4260
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 program in Hazardous Waste Management is also available, as is a Master of Science in Deaf Education. Students pay tuition at the resident rate of the receiving institution, rather than the normal nonresident rate. For further information, contact:

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:

Scholarship Office
Room 327, Museum Building
(208) 282-3315
http://www.isu.edu/scholar/
College of Arts and Letters

Faculty

Founding Dean
Kandi Turley-Ames, Ph.D.

Associate Dean, Division of Fine Arts and Humanities
Randy Earles, D.M.A.

Associate Dean, Division of Social and Behavioral Sciences
Mark McBeth, D.A.

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. 47) 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. 39) 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. 183) 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. Justin Stover, History
Dr. Bruce Loeb, Communication, Media, and Persuasion
Dr. Shane Gleason, Political Science
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.

Bachelor of Arts in General Studies

This is a non-specialist degree program designed to meet the needs of students interested in broadly-based education in the liberal arts. It provides greater flexibility and breadth in subject matter than provided by traditional degree programs. See the Associate Dean for Social and Behavioral Sciences in the College of Arts and Letters for advising in this program.

This degree requires completion of the following program:

<table>
<thead>
<tr>
<th>8 of the 9 General Education Objectives</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper division courses in the fine arts and humanities and/or social and behavioral sciences</td>
<td>20</td>
</tr>
</tbody>
</table>
Upper division credits from programs in the College of Arts and Letters, College of Business, College of Education, College of Science and Engineering, or Division of Health Sciences 20

Electives from across the university 44

Total Hours 120

**Associate of Arts in General Studies**

This degree requires completion of the General Education Requirements (p. 47) as outlined for the Bachelor of General Studies degree (above); 3 additional lower division credits in the arts and humanities; 3 additional lower division credits in the social and behavioral sciences; 6 additional lower division credits beyond the General Education Requirements from the Colleges of Arts and Letters, Business, Education, Science and Engineering, or the Division of Health Sciences; and elective credits from all across the university (please consult the restrictions on graduation credits from certain groups, as defined under Credit Requirements in the Applying to Graduate (p. 64) section of the catalog) to total 64 credit hours.
Anthropology

Faculty
Chair and Associate Professor
Trawick

Professors
Cartwright
Loether

Associate Professors
Dudgeon
Reedy

Assistant Professors
Speer
Stull

Native Language Instructor
Gould

Assistant Lecturers
Petersen
Thomas

Emeriti
Holmer
Stocks

Mission
The mission of the Department of Anthropology is to research and teach about global human diversity and distinctiveness 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, 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 subdisciplines of archaeology, biological anthropology, anthropological linguistics, and sociocultural anthropology. The department also offers minors in Anthropology, American Indian Studies, Latino Studies, and Linguistics, and specialization in archaeological science, ecological anthropology, medical anthropology, applied anthropology, forensics, language preservation, and oral history.

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, alternative theories and approaches, and modes of explanation appropriate to each of the subfields of the discipline.
2. Read and understand anthropological theory at the level of Bachelor of Arts.
3. Understand the use of quantitative and qualitative analysis 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.

Admission to Upper Division Classes in Anthropology

Students must fulfill the following requirements in order to advance to Upper Division status in the Anthropology major:

- Completion of ANTH 2237, ANTH 2238 or ANTH 2239 with a grade of C or better (each satisfies Objective 9)
- Completion of ANTH 1100 with a grade of C or better (partially satisfies Objective 6)

Bachelor of Arts in Anthropology

Beyond the general university requirements (8 of the 9 General Education Objectives—see the General Education Requirements (p. 47) in the Academic Information section of this catalog), a student seeking Bachelor of Arts degree with a major in anthropology must complete at least 37 credits in the following curriculum, earning at least a C grade in all lower and upper division core courses. Students for both the major and the minor in anthropology must have a minimum of 1 year of foreign language at the college level to graduate. Major and minor students must select their upper division anthropology elective courses in consultation with their major advisor. Majors who complete MATH 1153 with at least a C grade generally will not be required to take additional statistics courses.

Required Lower Division Courses: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/ LANG 1107</td>
<td>Nature of Language</td>
</tr>
<tr>
<td>ANTH 2203</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANTH 2230</td>
<td>Introduction to Biological Anthropology</td>
</tr>
<tr>
<td>ANTH 2250</td>
<td>Introduction to Sociocultural Anthropology</td>
</tr>
</tbody>
</table>

Required Upper Division Courses: 16

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ANTH 4492</td>
<td>Senior Seminar</td>
</tr>
<tr>
<td>ANTH 4495</td>
<td>Department Colloquium</td>
</tr>
<tr>
<td>ANTH 4401</td>
<td>History and Theory of Anthropology</td>
</tr>
<tr>
<td>ANTH 4403</td>
<td>Method and Theory in Archaeology</td>
</tr>
<tr>
<td>ANTH 4430</td>
<td>Human Evolution</td>
</tr>
</tbody>
</table>

Any upper division linguistics class (ANTH 445X)

Additional Courses: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper division anthropology elective courses</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 37
### Minor in Anthropology

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/LANG 1107</td>
<td>Nature of Language (satisfies General Education Objective 7)</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2203</td>
<td>Introduction to Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2230</td>
<td>Introduction to Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2250</td>
<td>Introduction to Sociocultural Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

**In Addition:**

Upper Division Anthropology Courses 9

Total Hours 21

### Minor in American Indian Studies

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2238</td>
<td>Peoples and Cultures of the New World (satisfies General Education Objective 9)</td>
<td>3</td>
</tr>
<tr>
<td>ANTH/HIST 2258</td>
<td>Native American History</td>
<td>3</td>
</tr>
<tr>
<td>ANTH/ENGL 4453</td>
<td>American Indian Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

Select FOUR of the following courses: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ANTH/SHOS 1101</td>
<td>Elementary Shoshoni I</td>
<td></td>
</tr>
<tr>
<td>ANTH/SHOS 1102</td>
<td>Elementary Shoshoni II</td>
<td></td>
</tr>
<tr>
<td>ANTH 2206</td>
<td>Indigenous Traditional Parenting</td>
<td></td>
</tr>
<tr>
<td>ANTH 3301</td>
<td>Introduction to Shoshoni Folklore</td>
<td></td>
</tr>
<tr>
<td>ANTH 4406</td>
<td>American Indian Health Issues</td>
<td></td>
</tr>
<tr>
<td>ANTH 4452</td>
<td>American Indian Verbal Arts</td>
<td></td>
</tr>
<tr>
<td>ANTH 4454</td>
<td>Survey of American Indian Languages</td>
<td></td>
</tr>
<tr>
<td>ANTH 4472</td>
<td>Native American Arts</td>
<td></td>
</tr>
<tr>
<td>ANTH 4474</td>
<td>Topics in Indian Education</td>
<td></td>
</tr>
<tr>
<td>ANTH/POLS 4478</td>
<td>Federal Indian Laws</td>
<td></td>
</tr>
<tr>
<td>ANTH/POLS 4479</td>
<td>Tribal Governments</td>
<td></td>
</tr>
<tr>
<td>ANTH 4489</td>
<td>Topics in American Indian Studies</td>
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</tr>
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Total Hours 21-23

### Minor in Latino Studies

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2250</td>
<td>Introduction to Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2239</td>
<td>Contemporary Latinos in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td>Peoples of Mexico Through Film</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>Culture South of the Border</td>
<td></td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>

One year intermediate Spanish 6-8

### Minor in Linguistics

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/LANG 1107</td>
<td>Nature of Language (satisfies General Education Objective 7)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2281</td>
<td>Introduction to Language Studies</td>
<td>3</td>
</tr>
<tr>
<td>ANTH/LANG 4455</td>
<td>Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 4484</td>
<td>Rotating Topics in Linguistics</td>
<td></td>
</tr>
<tr>
<td>or PHIL 4410</td>
<td>Philosophy of Language</td>
<td></td>
</tr>
<tr>
<td>or ANTH 4450/ENGL 4488</td>
<td>Sociolinguistics</td>
<td></td>
</tr>
</tbody>
</table>

One year of a foreign language 8

Plus nine credits from the following, for a total of 26 credits: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2280</td>
<td>Grammar and Usage</td>
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</tr>
<tr>
<td>ANTH/ENGL 3367</td>
<td>Language in the United States</td>
<td></td>
</tr>
<tr>
<td>ANTH 4452</td>
<td>American Indian Verbal Arts</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>Peoples of Mexico Through Film</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>Culture South of the Border</td>
<td></td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td></td>
</tr>
</tbody>
</table>

One year Intermediate Spanish 6-8
ENGL 4481  Studies In Grammar
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 Hours  26

Courses

ANTH 1100 General 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

ANTH 1101 Elementary Shoshoni I: 4 semester hours.
Basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Equivalent to SHOS 1101. Partially satisfies Objective 4 of the General Education Requirements. F

ANTH 1102 Elementary Shoshoni II: 4 semester hours.
Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Equivalent to SHOS 1102. PREREQ: ANTH/SHOS 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 Introduction to Archaeology: 3 semester hours.
Introduction to basic methods, data and concepts of archaeology. 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 Introduction to Biological Anthropology: 3 semester hours.
Introduction to human biology, including human origins, evolution, human adaptation, and diversity. F

ANTH 2233 Sex Culture 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 the 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 2250 Introduction to Sociocultural 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. F

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

ANTH 4401 History and Theory of 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 2250 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. PREREQ: ANTH 2203, ANTH 2250, ANTH 2230, BIOL 1100 or permission of instructor. D

PHIL 2201  Introduction to Logic (satisfies General Education Objective 7)
ANTH 4403 Method and Theory in 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. PREREQ: Prior Anthropology course or permission of instructor. 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 Introduction to 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 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 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 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 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. REREQ: 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 and permission of instructor. 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 4479. 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 hour.
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 hour.
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 2250 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 Archeology 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. S

ANTH 4494 Visual Anthropology: 3 semester hours.
Documentary and ethnographic filmmaking techniques including story structure, interviewing, audio and lighting, camera handling, composition, PV, 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. PREREQ: ANTH 1100 or ANTH 2250 or permission of instructor. F

ANTH 4495 Department Colloquium: 1 semester hour.
Presentations of current research issues in Anthropology by faculty and students. S

ANTH 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

ANTH 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
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, ceramics and jewelry/metals. 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. 47) described in the Academic Information section of this catalog).

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. 47) described in the Academic Information section of this catalog).

For art majors, Objective 4 of the General Education Requirements must be met with courses outside the Department of Art.

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. The student should take these five courses during the freshman year. After completion and upon achieving a 3.0 in these foundation classes, the student may formally declare Art as a major. 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 student's senior year, s/he 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 his/her development and growth as an artist/scholar. Elementary and secondary art education majors should refer to the College of Education (p. 183) 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.

Admission to Program
Departmental requirements are the same for both degrees. Students who wish to declare a 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 for admission as an Art major by submitting a portfolio for faculty review. The student should consult his/her advisor for declaration of major forms.

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.

Bachelor of Arts in Art
The Bachelor of Arts degree in art combines a liberal arts education with a strong concentration in studio areas and art history.

Required Courses:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 1100</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 1101</td>
<td>Survey of Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1102</td>
<td>Survey of Art History II</td>
<td>3</td>
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<tr>
<td></td>
<td>(each of the 3 courses above partially satisfies General Education Objective 4)</td>
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<tr>
<td>ART 1103</td>
<td>Creative Process</td>
<td>3</td>
</tr>
<tr>
<td>ART 1104</td>
<td>Creative Process</td>
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<tr>
<td>ART 1105</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1106</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 4494</td>
<td>Senior Presentation</td>
<td>1</td>
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</tbody>
</table>

In Addition:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art electives</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

Total Hours: 49
Bachelor of Fine Arts in Art

Students planning professional art careers in educational or studio fields or who are planning to do graduate work in art are encouraged to earn the B.F.A. degree.

Required Courses:

ART 1100 Introduction to Art 3
ART 1101 Survey of Art History I 3
ART 1102 Survey of Art History II 3

(Each of the 3 courses above partially satisfies General Education Objective 4)

ART 1103 Creative Process 3
ART 1104 Creative Process 3
ART 1105 Drawing I 3
ART 1106 Drawing II 3
ART 2201 Intermediate Drawing 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 3310 Professional Practice and Display 3
ART 4425 Contemporary Art 3
ART 4494 Senior Presentation 1

In Addition: Upper-division electives

Studio electives 18

Plus one of the following electives:

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

Total Hours 73

In addition to the required 73 credits for the B.F.A., 6 additional upper division credits will complete the 36 credits of upper division work required by the University.

Minor in Art History

The minor in art history allows the university student to develop their interests in the art of various cultures and periods.

Required Courses:

ART 1100 Introduction to Art 3
ART 1101 Survey of Art History I 3
ART 1102 Survey of Art History II 3

(Each of the 3 courses above partially satisfies General Education Objective 4)

ART 2210 History and Appreciation of Photography
ART 3323 19th c European Art
ART 3324 American Art
ART 4426 Special Topics in Art History
ART 4427 Theories and Methodologies

Total Hours 21

Minor in Studio

Required Courses:

ART 1100 Introduction to Art 3
ART 1101 Survey of Art History I 3
ART 1102 Survey of Art History II 3

(Each of the 3 courses above partially satisfies General Education Objective 4)

ART 4424 Modern Art
ART 4426 Special Topics in Art History
ART 4427 Theories and Methodologies

Total Hours 21

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. 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. F, 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 2201 Intermediate Drawing: 3 semester hours.
Course designed to expand the student's creative range in subject matter and technique. Includes studies in the historical importance of the drawing in art. PREREQ: ART 1105 and ART 1106. S

ART 2202 Intermediate Drawing: 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 2201. 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 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 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 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

ART 3382 Intermediate Sculpture: 3 semester hours.
Further explorations in imagery and development of skills in sculptural media. 
PREREQ: ART 3381. F, S

ART 3385 Individual Projects: 1-3 semester hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. 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 2202. 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. Equivalent to CMP 4435. PREREQ: CMP 2231 or permission of instructor. S

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

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

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 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D
ART 4499 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Communication, Media, and Persuasion

Faculty

Chair and Professor
DiSanza

Professors
Gribas
Jull
Legge
Partlow Lefevre

Associate Professor
Beachboard

Assistant Professors
Carr
Gershberg
Hartman
Ownby

Lecturers
Collins
Czerepinski
Dixon
Eckert
Morris
Robinson
Sowell
Underwood

Emeriti
Frazier
House
Loebs
Mauch
Trinklein

James E. Rogers Department of Communication, Media, and Persuasion


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 problem-solving for personal and professional goals.
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.

Bachelor of Arts in Communication

Select one of the following emphases:

1) Emphasis in Corporate Communication

Core courses: 18

- 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 4409 Communication Inquiry 3

Select ONE of the following tracks:

A) Advertising Track

Required track courses 21

- CMP 1110 Introductory Convergent Newswriting and Reporting 3
- CMP 2261 Introduction to Advertising 3
- CMP 3335 Typography and Layout 3
- CMP 3365 Advertising Strategy and Copywriting 3
- CMP 3367 Advertising Media Planning 3
- CMP 4465 Advertising Campaigns 3

Select ONE of the following: 3

- CMP 3339 Web Design
- CMP 4475 Corporate Video Production

Track electives 6

Complete 6 credits from the following list of electives:

- CMP 2205 Argumentation 3
- CMP 2241 Introduction to Public Relations 3
- CMP 2251 Introduction to Photography 3
- CMP 2286 Visual Rhetoric 3
- CMP 3302 Image Management 3
- CMP 3320 Foundations of Leadership 3
- CMP 3346 Public Relations Writing 3
- CMP 4410 Mass Media History, Law, and Ethics 3
- CMP 4424 Management Communication 3
- CMP 4446 Public Relations Programs 3
- CMP 4460 Special Projects in Advertising 3
- CMP 4475 Corporate Video Production 3
- CMP 4485 Classical Rhetorical Theory 3
- CMP 4486 Contemporary Rhetorical Theory 3
- CMP 4488 Rhetorical Criticism 3
### B) Leadership Track

**Required track courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP 3320</td>
<td>Foundations of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4420</td>
<td>Advanced Leader Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4422</td>
<td>Conflict Management</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4424</td>
<td>Management Communication</td>
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**Track electives**

Complete 15 credits from the following list of electives:

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>CMP 2205</td>
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<tr>
<td>CMP 2241</td>
<td>Introduction to Public Relations</td>
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</tr>
<tr>
<td>CMP 2261</td>
<td>Introduction to Advertising</td>
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<td>CMP 2286</td>
<td>Visual Rhetoric</td>
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<td>Image Management</td>
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<td>CMP 3346</td>
<td>Public Relations Writing</td>
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<td>CMP 3367</td>
<td>Advertising Media Planning</td>
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<td>CMP 4404</td>
<td>Gender and Communication</td>
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<tr>
<td>CMP 4440</td>
<td>Sport Public Relations</td>
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<tr>
<td>CMP 4446</td>
<td>Public Relations Programs</td>
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</tr>
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<td>CMP 4475</td>
<td>Corporate Video Production</td>
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</tr>
<tr>
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</tr>
<tr>
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<tr>
<td>CMP 4494</td>
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**Total major credits: 45**

### C) Public Relations Track

**Required track courses**

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>Introductory Convergent Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2209</td>
<td>Persuasion</td>
<td>3</td>
</tr>
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<td>CMP 2271</td>
<td>Introduction to Television Production</td>
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</tr>
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<td>CMP 3311</td>
<td>Public Affairs and Investigative Reporting</td>
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</tr>
<tr>
<td>CMP 3339</td>
<td>Web Design</td>
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<td>Mass Communication and Society</td>
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<td>CMP 4410</td>
<td>Mass Media History, Law, and Ethics</td>
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**Journalism Electives**

Complete 9 credits from the following list of electives

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</tr>
<tr>
<td>CMP 4415</td>
<td>Television News</td>
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<tr>
<td>CMP 4418</td>
<td>Advanced Reporting</td>
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<td>CMP 4471</td>
<td>Advanced Television Production</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4475</td>
<td>Corporate Video Production</td>
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</tr>
</tbody>
</table>

**Department Electives**

Complete 9 credits from the remaining electives above and/or from the list below.

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</tr>
<tr>
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<td>Image Management</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3335</td>
<td>Typography and Layout</td>
<td>3</td>
</tr>
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</tr>
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<td>Gender and Communication</td>
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</tr>
<tr>
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<td>Narrative and Print</td>
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</tr>
<tr>
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<td>3</td>
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<tr>
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<td>Rhetoric of Hitler and Churchill</td>
<td>3</td>
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<td>American Public Address</td>
<td>3</td>
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<tr>
<td>CMP 4483</td>
<td>Rhetoric of Popular Culture</td>
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**Total major credits: 45**

### 3) Emphasis in Rhetoric

**Core Courses:**

<table>
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<tr>
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<td>CMP 2286</td>
<td>Visual Rhetoric</td>
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<td>Mass Media History, Law, and Ethics</td>
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**Total major credits: 30**

### 2) Emphasis in Multi-Platform Journalism

**Core Courses:**

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**Journalism Electives**

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**Department Electives**

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</table>

**Total major credits: 30**
CMP 4486  Contemporary Rhetorical Theory  3
CMP 4488  Rhetorical Criticism  3

Select ONE of the following options (6 credits):

A) Advertising Option

Select TWO of the following courses:

- CMP 2231  Introduction to Graphic Design  3
- CMP 2261  Introduction to Advertising  3
- CMP 3365  Advertising Strategy and Copywriting  3

B) Design Option

Select TWO of the following courses:

- CMP 2202  Photo, Graphic, and Video Editing  3
- CMP 2231  Introduction to Graphic Design  3
- CMP 3339  Web Design  3

C) Public Relations Option

Select TWO of the following courses:

- CMP 2241  Introduction to Public Relations  3
- CMP 3346  Public Relations Writing  3
- CMP 4440  Sport Public Relations  3
- CMP 4446  Public Relations Programs  3

Electives

Select THREE of the following courses:

- CMP 2201  Business and Professional Communication  3
- CMP 3302  Image Management  3
- CMP 3308  Groups and Communication  3
- CMP 4404  Gender and Communication  3
- CMP 4422  Conflict Management  3
- CMP 4424  Management Communication  3
- CMP 4483  Rhetoric of Popular Culture  3

Total major credits: 45

4) Emphasis in Visual Communication

Core courses:

- CMP 1110  Introductory Convergent Newswriting and Reporting  3
- CMP 2202  Photo, Graphic, and Video Editing  3
- CMP 3339  Web Design  3
- CMP 4403  Mass Communication and Society  3
- CMP 4410  Mass Media History, Law, and Ethics  3

Select ONE of the following options (15 credits):

A) Design Option

- CMP 2231  Introduction to Graphic Design  3
- CMP 3335  Typography and Layout  3
- CMP 3337  Illustration  3
- CMP 4435  Narrative and Print  3
- CMP 4436  Advanced Issues in Design  3

B) Photo Media Option

- CMP 2202  Photo, Graphic, and Video Editing  3

- CMP 2250/ART 2210  History and Appreciation of Photography (Partially satisfies General Education Objective 4)  3
- CMP 2251  Introduction to Photography  3
- CMP 3352  Photo Communication  3
- CMP 4455  Photo Media  3
- CMP 4457  Advanced Photo Media  3

C) Video Option

- CMP 2271  Introduction to Television Production  3
- CMP 3310  Multiplatform Storytelling  3
- CMP 3371  Video Editing and Compositing  3
- CMP 4471  Advanced Television Production  3
- CMP 4475  Corporate Video Production  3

Electives

Select any TWO additional courses from the option lists above  6

Select any THREE of the following courses:

- CMP 2201  Business and Professional Communication  3
- CMP 2209  Persuasion  3
- CMP 2241  Introduction to Public Relations  3
- CMP 2261  Introduction to Advertising  3
- CMP 2286  Visual Rhetoric  3
- CMP 4404  Gender and Communication  3
- CMP 4422  Conflict Management  3
- CMP 4424  Management Communication  3
- CMP 4483  Rhetoric of Popular Culture  3

Total major credits: 45

Note: The course requirements for the following emphases are available in earlier versions of the ISU Catalog. These emphases are targeted for future elimination. Students who are working from older catalogs and who are pursuing these emphases will be able to complete their programs by taking the newer versions of CMP courses and should meet with an advisor to check for course equivalents and approve any needed course substitutions.

• Emphasis in Advertising
• Emphasis in Media Studies
• Emphasis in Public Relations
• Emphasis in Television

Minor in Public Relations/Advertising

Required Minor courses

- CMP 1110  Introductory Convergent Newswriting and Reporting  3
- CMP 2241  Introduction to Public Relations  3
- CMP 2261  Introduction to Advertising  3
- CMP 3346  Public Relations Writing  3

Select ONE of the following options (6 credits):

Option A: Take both of the following courses

- CMP 2231  Introduction to Graphic Design  3
- CMP 3365  Advertising Strategy and Copywriting  3

Option B: Select any TWO of the following courses

- CMP 2202  Photo, Graphic, and Video Editing  3
3) Video Option

2) Design Option

1) Photo Media Option

Select ONE of the following minor options (6 credits)

Required minor courses

Total minor credits: 18

Minor in Rhetoric

Required Minor courses

Select ONE of the following courses:

Total minor credits: 18

Minor in Visual Communication

Required minor courses

Select ONE of the following minor options (6 credits)

1) Photo Media Option

2) Design Option

3) Video Option

Total minor credits: 18

Comm and Rhetorical Studies Courses

**COMM 1101 Principles of Speech: 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 Courses**

**CMP 1110 Introductory Convergent Newswriting and Reporting: 3 semester hours.**

Production of news stories across different platforms and in various formats. Course will focus on a range of core themes, including identifying story ideas, research techniques, interviewing, and writing, all interwoven within a range of ethical and legal concepts that underpin newswriting and reporting. PREREQ: ENGL 1101 or ENGL 1101P, placement into ENGL 1102, or permission of instructor. 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. S

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 concepts and procedures of graphic design. Lectures, studio, and computer exercises will explore issues in design for graphic media, typography, and design for the page. 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 camera and paper. Laboratory required. 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 Introduction to Television Production: 3 semester hours.
Emphasis on studio and remote television production, with exercises in basic camera operation, electronic editing, studio directing and field reporting. PREREQ: CMP 1110 and CMP 2202. F

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. 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 hour.
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 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 3310 Multiplatform Storytelling: 3 semester hours.
Exploration of narrative reporting and storytelling in an online environment through different styles and various technologies. PREREQ: CMP 1110. S

CMP 3311 Public Affairs and Investigative Reporting: 3 semester hours.
Examination of the processes of government at all levels from an investigative journalist's perspective. Students will employ advanced reporting and journalism skills in the production of in-depth stories in various formats. PREREQ: CMP 1110. 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 3335 Typography and Layout: 3 semester hours.
The history, development, and design of typefaces and their use in layout with other elements with attention to perceptual, emotional, and stylistic issues. Development and creation of content as well as grid structures to organize complex information. Critique and individual discussion focused on developing typographic refinement and attention to detail. PREREQ: CMP 2231. S

CMP 3337 Illustration: 3 semester hours.
Examination of the effectiveness and power of illustration through images found in book and magazine illustration, advertising, and web design. From the sketch process to the development of finished images, students are exposed to a variety of working methods. Production of work such as editorial images, packaging, and poster design with an emphasis on concept, creativity, communication, technical achievement, and presentation. PREREQ: CMP 2231. 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. 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 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 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 1110, 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 Video Editing and Compositing: 3 semester hours.
Application of visual storytelling techniques, styles, and devices used in digital video production including theory and aesthetic expression to increase student understanding of visual syntax and timing. In-depth exploration and usage of professional video editing and motion graphics software. PREREQ: CMP 2202 and CMP 2271, or permission of instructor with demonstrated professional experience. S

CMP 3399 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. 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. PREREQ: CMP 1110. 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 4409 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. 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 4415 Television News: 3 semester hours.
Writing, reporting, and producing the television newscast. Emphasis on proper technique as well as ethical and social issues. PREREQ: CMP 1110, CMP 2271, and CMP 3310 or CMP 3311. F

CMP 4418 Advanced Reporting: 3 semester hours.
In-depth writing and reporting of important topics of feature-length, investigative journalism on various platforms and different formats. PREREQ: CMP 1110, CMP 3310, and CMP 3311; or permission of instructor. 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. PREREQ: CMP 3320. 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 4424 Management Communication: 3 semester hours.
Examines the communication goals and functions unique to organizational managers and leaders. Topics studied include socialization and training, leader-member relationships, incentive-based systems of motivation, employee identification and commitment, and organizational development. S

CMP 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. Equivalent to ART 4435. PREREQ: CMP 2231 or permission of instructor. S

CMP 4436 Advanced Issues in Design: 3 semester hours.
Focuses on complex design challenges, professional-level assignments, and design projects with multiple components. Application of research and entrepreneurial skills to seek innovative solutions for appropriate economic constituencies, users, and audiences. Professional presentations of ideas and design solutions for critique and discussion are central to this course. PREREQ: CMP 2231, and CMP 3335 or CMP 3337. F

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 Programs: 3 semester hours.
Tactics and strategies for planning public relations programs for public and private organizations. PREREQ: CMP 3346. S

CMP 4455 Photo Media: 3 semester hours.
Focuses on the art of visually communicating news or feature stories with still pictures and/or video. Emphasis on photographer adaptation to situations to cover stories as they unfold without becoming part of the story and application of multimedia formats expected within current social and mass media environments. CMP 3352 strongly recommended. PREREQ: CMP 2251 or permission of instructor. F

CMP 4457 Advanced Photo Media: 3 semester hours.
Explores the notion of visual storytelling for multi-media/multi-platform productions. Investigation into photographer intent as it relates to crafting color or black and white images into a visual story, elements and decisions required for storytelling, and concept research techniques. Students create a body of cohesive images suitable for various forms of professional multi-platform distribution. PREREQ: CMP 2251 or permission of instructor. S

CMP 4460 Special Projects in Advertising: 3 semester hours.
Students work as a team to apply persuasive mass communication principles to solving a real-world marketing communication problem such as the annual AAF/NSAC client case. May be repeated for up to 9 credits. PREREQ: Permission of instructor. 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 Television Production: 3 semester hours.
Theory and practical experience producing and presenting information on-air television broadcast programs with attention to role of broadcast television in society, nature of audiences, production techniques, and TV news management. Will include both on-camera and production experience reflecting a professional environment. Students will create material for professional portfolios. May be repeated for up to 6 credits. PREREQ: CMP 1110, CMP 2271, and CMP 3310 or CMP 3311 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. F

CMP 4481 Rhetoric of Hitler and Churchill: 3 semester hours.
Rhetorical theory and practice of these influential leaders and the impact of their persuasion. Topics include Hitler's oratory, Nazi propaganda, and Churchill's World War II speeches. F

CMP 4482 American Public Address: 3 semester hours.
Has a dual purpose: to study the impact of rhetoric (oral and written persuasion) on major events in American history; to examine great speakers and rhetorical documents in their historical context. 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 4484 Recent Rhetorical Issues: 3 semester hours.
Study of the rhetoric of contemporary issues such as the Vietnam War, the Black Revolution, and other current political and social topics, including the rhetoric of ongoing election campaigns. F

CMP 4485 Classical Rhetorical Theory: 3 semester hours.
Principle western rhetorical theories discussed from a historical perspective, beginning with the ancient Greeks, Romans, Second Sophistic, and ending with the Middle Ages. Some of the works stressed include writings by Plato, Aristotle, Cicero, Longinus, and St. Augustine. F

CMP 4486 Contemporary Rhetorical Theory: 3 semester hours.
This course examines rhetorical theories as a cultural phenomenon including modern, contemporary, and postmodern approaches. S

CMP 4488 Rhetorical Criticism: 3 semester hours.
Study and application of various theories and methods of rhetorical criticism including Aristotelian and Burkian principles. PREREQ: CMP 4485. S

CMP 4491 Independent Projects: 1-3 semester hour.
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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. May be repeated.
The Department of English and Philosophy offers broad curricula in two humanistic disciplines. English studies include courses that treat the nature of language, courses that explore human experience as represented in imaginative literature, and courses that develop general and specialized writing skills. The philosophy curriculum examines such topics as the nature of reality and being, the ways that knowledge is acquired, and the bases for ethical choices.

These curricula serve two broad purposes: 1) they contribute to the general education, the personal enrichment and fulfillment, of students in all disciplines, and 2) they lead to degrees with majors or minors. Specifically, 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. (Full descriptions of the graduate degree programs in English may be found in the Graduate Catalog (http://coursecat.isu.edu/graduate).)

Students pursuing the B.A. degree are encouraged to take courses in the College of Arts and Letters curricula beyond the minimum general education requirements to provide both breadth and depth in their liberal arts education. Breadth and depth can be achieved through taking courses beyond minimum requirements in the arts and humanities disciplines of art and art history; communications, media, persuasion; dance; English; languages and literatures; music; philosophy; and theater. Students interested in applying to graduate study in the humanities should aim to study comprehensively at least one language other than their native language. For the B.A. in English, one year of language, or equivalent, is required. English majors are encouraged to include at least one philosophy (PHIL) course in their coursework.

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 medicine, law, or religion, or to embark upon a great variety of careers in government/business/industry that demand broad, liberal arts perspectives and strong observational, fact-finding, analytical, and communication skills. Additionally, English majors (with proper certification) are well prepared for careers in secondary education.

**English Program**

The Department of English and Philosophy offers broad curricula in English studies which include courses that treat the nature of language, courses that explore human experience as represented in imaginative literature, and courses that develop general and specialized writing skills. Beyond contributing to students’ general education and the personal enrichment and fulfillment of students in all disciplines, courses in the English programs lead to Bachelor’s degrees as well as a range of minors. After graduation English students are prepared to embark upon a variety of careers which demand broad, liberal arts perspectives, and strong observational, fact-finding, analytical, and communications skills. Additionally, English majors (with proper certification) are well prepared for careers in secondary education.

As such, 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.

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, explain, and evaluate the influences of language, literature, and culture on the formation and expression of cultural and historical patterns.

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 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.

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 General Education Requirements (p. 47), Objective 1. Students should consult with the Director of Composition concerning applicability toward Objective 1 requirements of writing courses taken at other institutions.

English Courses

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 and variable expressive culture that we learn in informal interactions with people we meet regularly or that we learn through informal communications via the Internet or personal writing. The many traditional genres of folklore include the verbal arts, such as epic, ballad, folksong, folklore, legend, myth, joke, tall tale, riddle, and proverb. Newer genres include YouTube postings, contemporary ("urban") legends, and digital "memes." Folklore also includes customary and material forms, such as calendar customs, games, dances, foodways, modes of dress, folk architecture, and crafts such as chair making, blacksmithing, and the many forms of fabric art. People learn and share folklore with interest groups that have a common ethnic, religious, occupational, hobby, or other experiential basis.

Folklore studies range widely. 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. We focus on textual questions, studying folk aesthetics and connotation and the relationships between oral and written literatures. 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, American studies, 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.

Bachelor of Arts In English

A student may select only one of the Options below—Literary, Professional Writing, or Creative Writing—to fulfill the requirements for the English major. As there is only one English major, it is not possible to select more than one of these options to double major in English. Each option requires completion of 45 semester hours as specified (excluding lower division composition courses—ENGL 1101, ENGL 1101P, and ENGL 1102). For students majoring in English, one year of a foreign language is required. For English majors considering graduate school, two years of a foreign language are recommended.

Option 1 - Literary

Take these required courses:
ENGL 2211 Introduction to Literary Analysis 3
ENGL 2280 Grammar and Usage 3
or ENGL 2281 Introduction to Language Studies
ENGL 3311 Writing and Research about Literature 3
ENGL 4491 Senior Seminar in Literature 3

Select TWO of the following survey courses:
ENGL 2267 Survey of British Literature I Beginnings through 18th Century 6
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 study courses:
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 3

Select TWO of the following period courses:
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:
ENGL 4472 Proseminar in a Major Literary Figure 3
ENGL 4473 Chaucer
ENGL 4474 Milton
ENGL 4476 Shakespeare

Select ONE of the following themes and identity courses:
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:
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

Select 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:
ENGL 1107 Nature of Language (Satisfies General Education Objective 7)
ENGL 1110 Introduction to Literature
ENGL 1115 Major Themes in Literature
ENGL 1126 Art of Film I

(Each of the 3 courses above partially satisfies General Education Objective 4)
ENGL/ANTH Introduction to Folklore and Oral Tradition (Satisfies General Education Objective 9)
ENGL 2257 Survey of World Literature I Beginnings through 16th Century
ENGL 2258 Survey of World Literature II 17th Century to Present

Total Hours 45

Option 2 - Professional Writing

Note: Students electing the professional writing option are strongly encouraged to minor in a discipline relevant to their professional interests.

Take these required courses:
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 3311 Writing and Research about Literature 3
ENGL 4440 Writing Internship 1-6
ENGL 4493 Senior Seminar Professional Writing 3
PHIL 2201 Introduction to Logic (Satisfies General Education Objective 7)

Select ONE of the following creative writing courses:
ENGL 2206 Creative Writing Workshop 3
ENGL 3306 Intermediate Creative Writing Workshop
ENGL 4406 Advanced Creative Writing Workshop

Select THREE of the following writing, communication, and media courses:
INFO 1120 Web Development: Client-Side Programming
CMP 4486 Contemporary Rhetorical Theory
CMP 4485 Classical Rhetorical Theory
CMP 2231 Introduction to Graphic Design
or CMP 4436 Advanced Issues in Design
CMP 2251 Introduction to Photography
or CMP 4457 Advanced Photo Media
ENGL 4401 Advanced Composition
ENGL 4407 Topics in Professional Writing

Select ONE of the following survey courses:
ENGL 2267 Survey of British Literature I Beginnings through 18th Century 3
### Minor in English

Many students take English courses as electives to enhance their studies in other areas or as preparation for professional work. The Department of English and Philosophy offers three minors in English—one general minor and two specialized minors in writing—for students who wish to receive recognition for substantial training in literature and writing. Lower division composition courses—ENGL 1101, ENGL 1101P, and ENGL 1102—do not count toward completion of these minors.

#### Option 1 - General

Twenty-one hours of credit in English, 12 of which must be in upper division courses, including either ENGL 3307 or ENGL 3311.

#### Option 2 - Writing

**Required Courses:**

- **ENGL 2280** Grammar and Usage 3
- or **ENGL 2281** Introduction to Language Studies
- **ENGL 3311** Writing and Research about Literature 3
- **ENGL 4487** History of the English Language 3

Plus four additional courses, of which at least two must be upper-division, from among the following:

- **ENGL 1107** Nature of Language (Satisfies General Education Objective 7) 3
- **ENGL 2206** Creative Writing Workshop
- **ENGL 3306** Intermediate Creative Writing Workshop
- **ENGL 3307** Professional and Technical Writing
- **ENGL 4401** Advanced Composition
- **ENGL 4406** Advanced Creative Writing Workshop
- **ENGL 4481** Studies in Grammar
- **ENGL 4484** Rotating Topics in Linguistics
PHIL 2201  Introduction to Logic (Satisfies General Education Objective 7)

Total Hours  21

Option 3 - Creative Writing

Required Courses:

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

Select 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 elective  3

Total Hours  21

English Education Program

For the requirements of the Secondary Teaching Major in English, the Single Subject Teaching Major in English, and the Teaching Minor in English, see the descriptions in the Teacher Education Program (p. 183).

Bachelor of Arts in Philosophy

Students who wish to major in philosophy should select either the traditional major or the major with a Pre-law Emphasis. In addition to University General Education (p. 47) requirements for a Bachelor of Arts degree, students wishing to major in Philosophy will follow the curriculum listed below. Students interested in coursework with an ethics or religion perspective should consult with departmental advisors.

Students wishing to earn a minor in this department may select among a minor in Ethics, a minor in Philosophy, and a minor in Philosophy and Religion.

Option 1 - Traditional Major

Required courses:

PHIL 2201  Introduction to Logic (Satisfies General Education Objective 7)  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

Plus 12 additional hours of philosophy electives  12

Total Hours  30

Option 2 - Pre-Law Emphasis

Required courses:

PHIL 2201  Introduction to Logic (Satisfies General Education Objective 7)  3
PHIL 3305  History of Philosophy Greek Reason and Christian Faith  3
PHIL 3335  Philosophy of Law  3
PHIL 4450  Ethical Theory  3
PHIL 4460  Theory of Knowledge  3
PHIL 4492  Senior Tutorial  3

Plus 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

Plus 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

Plus six additional hours of philosophy electives  6

Total Hours  30

Minor in Ethics

Required courses: eighteen semester-hours of philosophy including:

PHIL 4450  Ethical Theory  3

And at least two of the following:  6
PHIL 2220  Philosophical Issues in Religion
PHIL 2230  Medical Ethics
PHIL 3335  Philosophy of Law

Minor in Philosophy

A minor in philosophy is recommended for students seeking a liberal arts education. Required courses for the minor: any eighteen semester-hour credits elected from the philosophy curriculum.

Minor in Philosophy and Religion

Eighteen semester-hours of philosophy including:

Select two of the following:  6
PHIL 2210  Introduction to Asian Philosophies (Satisfies General Education Objective 9)
PHIL 2220  Philosophical Issues in Religion
PHIL 2225  Philosophy and the Old Testament
PHIL 4425  Existentialism

Plus one of the following:  3
HIST 2252  East Asian History (Satisfies General Education Objective 9)
HIST 2254  Middle Eastern Civilization (Satisfies General Education Objective 9)
SOC 3368  The Sociology of Religion
Minor in Folklore

The program in folklore offers a minor designed to augment Anthropology, English, History, Sociology, or any other major. The program’s required course, ANTH 2212/ENGL 2212, introduces students to the study of folklore genres, folklore fieldwork, and types of folk groups. Upper-division courses provide students with more focused study of folklore issues and genres, the history of folklore scholarship, particular folk cultures, and the interrelationship of genres within those cultures. The program also provides opportunities for study of ethnographic and material culture fieldwork techniques. Specialized courses include material culture, American Indian verbal and material arts, and courses in the relationships between folklore and literature, including fantasy literature.

The minor in folklore consists of 18 credits as follows:

**Required Course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANTH 2212</td>
<td>Introduction to Folklore and Oral Tradition (Satisfies General Education Objective 9)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 2212</td>
<td>Introduction to Folklore and Oral Tradition</td>
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Select 15 credits from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ANTH 3301</td>
<td>Introduction to Shoshoni Folklore</td>
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<tr>
<td>ANTH 4404</td>
<td>Material Culture Analysis</td>
</tr>
<tr>
<td>ANTH 4449</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>ANTH 4452</td>
<td>American Indian Verbal Arts</td>
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<td>ANTH 4472</td>
<td>Native American Arts</td>
</tr>
<tr>
<td>ANTH 4490</td>
<td>Topics in Folklore</td>
</tr>
<tr>
<td>or ENGL 4490</td>
<td>Topics in Folklore</td>
</tr>
<tr>
<td>ENGL 4492</td>
<td>Folklore and Literature</td>
</tr>
</tbody>
</table>

**Total Hours:** 18

American Studies 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

**English 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 English Composition: 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. Equivalent to ENGL 1101P. F, S, Su

**ENGL 1101P English Composition 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. Equivalent to ENGL 1101. F, S

**ENGL 1102 Critical Reading and Writing: 3 semester hours.**

Writing essays based on readings. Focus on critical reading; research methods; gathering, evaluating, analyzing, and synthesizing ideas and evidence; documentation. Satisfies Objective 1 of the General Education Requirements. PREREQ: ENGL 1101 or ENGL 1101P 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 1110 Introduction to Literature: 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 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. 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. 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 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 theoretical 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. F

**ENGL 2211 Introduction to Literary Analysis: 3 semester hours.**

Writing-intensive course. Teaches students how to perform close readings of poetry and prose. Introduces major theoretical approaches to literature. Includes orientation to finding and evaluating secondary criticism. 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. 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 Writing and Research about Literature: 3 semester hours.
Writing-intensive course with continued emphasis on close reading. Fosters independent work with criticism. Students first learn to identify current scholarly conversations on issues relevant to the course. Then, in longer essays, they position their own arguments in the context of these discussions. 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. 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 literary heritage. R2

ENGL 3348 Independent Problems: 1-3 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 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. 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: ENGL 3307, ENGL 3308, or ENGL 3311. R1

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: ENGL 3307 or ENGL 3308 or permission of instructor. 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 hour.  
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:  
GOAL 1, ENGL 2211 and ENGL 2281, plus 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: ANTH/ENGL/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 2280. 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: ANTH/  
ENGL/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 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: ANTH 1107, ENGL 2280 or ENGL 2281, or permission of instructor. F

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. PREREQ: ENGL 4410 or permission of instructor. 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 4497 Workshop: 1-2 semester hour.
Workshop aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

Philosophy 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 2225 Philosophy and the Old Testament: 3 semester hours.
Discussion of Hebrew Scripture, with emphasis on the narrative material in the Pentateuch. Commentaries drawn from classical and contemporary philosophy, theology, and literary theory. D

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 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 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 hour.
Advanced reading and discussion on selected topics in philosophy. May be repeated with permission of the department. D

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Global Studies and Languages

Faculty

Associate Professor and Chair
Njoku

Professors
Park (French)
Sieber (Spanish)

Associate Professors
Hunt (Spanish)
Tarp (Spanish for Health Professions, Interpretation, Translation, Golden Age Spain)

Assistant Professors
Hiller (Spanish)
Yik (Economics)

Senior Lecturer
Heath (Spanish 1101-2202)

Assistant Lecturers
Bassett (Spanish)
Dillon (German)
Fukuoka (Japanese)
McCurry (Spanish, Spanish for Health Professions)
Robredo (Spanish)

Adjunct Faculty
Al-qurashi (Arabic)
Coffield (German)
Stringfellow-Brookman (French)
Tatarova (French)

Emeriti
Dolsen (Latin)
Nickisch (German)

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 Bachelors of Arts (BA) in Spanish for the Health Professions, minors in French, German, Spanish, and Japanese, and Certificates in Basic and Advanced language. 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 Gravelly 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.

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. 47) 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.
3. Objective 4: One semester of Arabic, Chinese, French, German, Japanese, Latin, Russian, or Spanish at the elementary level may be taken to partially satisfy Objective 4.
4. Objective 7: ANTH 1107, ENGL 1107, or LANG 1107 satisfies General Education Objective 7.
5. Objective 9: The following 3-credit courses taught in English satisfy Objective 9: CMLT 2207, Contemporary European Culture; CMLT 2208, Cultures of the Spanish-Speaking World; CMLT 2209, Cultures of Asia; IS 2202, World Today: Introduction to Global issues.

Language Laboratory and Testing Center

The department maintains 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).

Admission Requirements

For final admission to status as a major in the International Studies Program, a student must have completed:

1. General Education Objectives (p. 47) 1, 2, 3, and a minimum of eight (8) credits of a foreign language (or demonstrated equivalent);
2. POLS 2221 Introduction to International Relations (with at least a C grade);
3. A minimum of 24 credit hours with at least a 2.25 grade point average;
4. A signed agreement with the International Studies Program Director for advising.

All courses required for the majors and minors listed below must be completed with a minimum grade of a C- (C-minus).

Prospective high school teachers may obtain teaching majors or minors in foreign languages. They should consult the Teacher Education Program in the College of Education (p. 183) concerning the requirements for certification. Foreign language majors and minors are expected to include in their programs the designated required courses and to attain a reasonable degree of fluency in the languages they have selected.

Degree Requirements for Bachelor of Arts in Spanish

Language Component

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 2201</td>
<td>Intermediate Spanish I (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 2202</td>
<td>Intermediate Spanish II (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 3301</td>
<td>Spanish Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3302</td>
<td>Spanish Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3341</td>
<td>Survey of Spanish Literature and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3342</td>
<td>Survey of Latin American Literature and Civilization</td>
<td>3</td>
</tr>
</tbody>
</table>
Option 1: 18 Additional Credits

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.

Students may select 6 of these 18 credits from courses in lists A and B, below:

A -- Recommended for students who have not had immersion experiences or who enter language study below the 3000 level:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 2200</td>
<td>Intermediate Enrichment</td>
<td>3-4</td>
</tr>
<tr>
<td>SPAN 2210</td>
<td>Spanish for Health Care I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 2211</td>
<td>Spanish for Health Care II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3300</td>
<td>Intensive Conversation</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture (Satisfies General Education Objective 9)</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2208</td>
<td>Cultures of the Spanish Speaking World (Satisfies General Education Objective 9)</td>
<td>3</td>
</tr>
</tbody>
</table>

1 This is a variable-credit course repeated to obtain the required number of credits.

B -- Recommended for students who have had immersion experiences or who enter language study at the 3000 level:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2250</td>
<td>Introduction to Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3</td>
</tr>
<tr>
<td>or CMLT 2208</td>
<td>Cultures of the Spanish Speaking World</td>
<td>3</td>
</tr>
<tr>
<td>Either course satisfies General Education Objective 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 2249</td>
<td>World Regional Geography (Satisfies General Education Objective 9)</td>
<td>3</td>
</tr>
<tr>
<td>LANG/ANTH/</td>
<td>Nature of Language (Satisfies General Education Objectives 9)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1107</td>
<td>Objective 7</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2221</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

Option 2 -- Second Language: 22 Additional Credits

Second language: French, German, or Japanese. Students take the following courses in their chosen second language:

1101 and 1102 Elementary I and II 8 cr
2201 and 2202 Intermediate I and II 8 cr
Two upper-division courses in the chosen language 6 cr

Bachelor of Arts in French for Business and Professions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 2201</td>
<td>Intermediate French I (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>FREN 2202</td>
<td>Intermediate French II (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>FREN 3301</td>
<td>French Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>FREN 3302</td>
<td>French Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>FREN 3341</td>
<td>Survey of French Literature and Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>FREN 3381</td>
<td>French Current Affairs</td>
<td>3</td>
</tr>
<tr>
<td>Upper-division elective courses - recommendations listed below</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Select ONE of the following two courses:</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Bachelor of Arts in German for Business and Professions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 2201</td>
<td>Intermediate German I (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>GERM 2202</td>
<td>Intermediate German II (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>GERM 3301</td>
<td>German Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3302</td>
<td>German Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3341</td>
<td>Survey of German Literature and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>or GERM 3342</td>
<td>Survey of Austrian and Swiss Literature</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3381</td>
<td>German Current Affairs</td>
<td>3</td>
</tr>
<tr>
<td>Upper-division elective courses - recommendations listed below</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Select ONE of the following two courses</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Bachelor of Arts in Spanish for Business and Professions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 2201</td>
<td>Intermediate Spanish I (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 2202</td>
<td>Intermediate Spanish II (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 3301</td>
<td>Spanish Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3302</td>
<td>Spanish Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3341</td>
<td>Survey of Spanish Literature and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 3342</td>
<td>Survey of Latin American Literature and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3381</td>
<td>Hispanic Current Affairs</td>
<td>3</td>
</tr>
<tr>
<td>Select ONE of the following two courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3</td>
</tr>
<tr>
<td>or CMLT 2208</td>
<td>Cultures of the Spanish Speaking World</td>
<td>3</td>
</tr>
</tbody>
</table>
One of the following minors offered by the College of Business ¹

<table>
<thead>
<tr>
<th>Minor</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business (for Non-Business Majors only)</td>
<td>18</td>
</tr>
<tr>
<td>Business Administration (for Non-Business Majors only)</td>
<td>33</td>
</tr>
<tr>
<td>Marketing (for Non-Business Majors only)</td>
<td>18</td>
</tr>
</tbody>
</table>

¹ See the detailed listings of requirements for the three minors in the College of Business (p. 160) section of the catalog.

**Recommended Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 3300</td>
<td>Intensive Conversation ¹</td>
<td>3</td>
</tr>
<tr>
<td>FREN 3303</td>
<td>Professional French</td>
<td>3</td>
</tr>
<tr>
<td>FREN 3305</td>
<td>Study Abroad</td>
<td>1-6</td>
</tr>
<tr>
<td>FREN 4465</td>
<td>French Translation and Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>FREN 4465L</td>
<td>Translation and Interpretation Laboratory</td>
<td>1-3</td>
</tr>
<tr>
<td>GERM 3300</td>
<td>Intensive Conversation ¹</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3303</td>
<td>Professional German</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3305</td>
<td>Study Abroad</td>
<td>1-6</td>
</tr>
<tr>
<td>GERM 4460</td>
<td>German Translation and Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>GERM 4460L</td>
<td>Translation and Interpretation Laboratory</td>
<td>1-3</td>
</tr>
<tr>
<td>SPAN 3300</td>
<td>Intensive Conversation ¹</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3303</td>
<td>Professional Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3305</td>
<td>Study Abroad</td>
<td>1-6</td>
</tr>
<tr>
<td>SPAN 4460</td>
<td>Spanish Translation and Interpretation</td>
<td>4</td>
</tr>
</tbody>
</table>

¹ For students who have not yet had an immersion experience

**Bachelor of Arts in Spanish for the Health Professions (120 credits)**

All students wishing to graduate in the Spanish for the Health Professions must take the ACTFL Oral Proficiency Interview (OPI). Please see your advisor for information regarding this exam.

**A. Linguistic Core (33 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>SPAN 2201</td>
<td>Intermediate Spanish I</td>
<td>8</td>
</tr>
<tr>
<td>&amp; SPAN 2202</td>
<td>and Intermediate Spanish II (or equivalent)</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>SPAN 2265 Accelerated Intermediate Spanish (or equivalent)</td>
<td>1-3</td>
</tr>
<tr>
<td>SPAN 2210</td>
<td>Spanish for Health Care I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 2211</td>
<td>Spanish for Health Care II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3300</td>
<td>Intensive Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3301</td>
<td>Spanish Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td>SPAN 3302 Spanish Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4400</td>
<td>Spanish Advanced Grammar</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4460</td>
<td>Spanish Translation and Interpretation</td>
<td>4</td>
</tr>
</tbody>
</table>

**B. Health Professions Core (9 credits minimum)**

Select 9 credits minimum; 3 must be upper division:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 3300</td>
<td>Interpersonal Skills in Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>HCA 1110</td>
<td>Introduction to the Allied Health Professions</td>
<td>3</td>
</tr>
<tr>
<td>HCA 1115</td>
<td>US Health System</td>
<td>3</td>
</tr>
</tbody>
</table>

**C. Culture Core (9 credits minimum)**

Select 9 credits minimum; 3 must be upper division:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 3350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4450</td>
<td>Special Topics in Healthcare</td>
<td>1-3</td>
</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3100</td>
<td>Professional Nursing</td>
<td>2</td>
</tr>
<tr>
<td>PAS 4489</td>
<td>Independent Problems in Physician Assistant Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>PHIL 2230</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>Approved Health Science Course</td>
<td>1-3</td>
<td></td>
</tr>
</tbody>
</table>

**D. Electives (23-31 credits) - A minimum of 13 elective credits must be upper division**

After completing the 38 to 46 General Education Requirements (p. 47) and the 51 core area credits, the remaining 23-31 credits (at least 13 upper division) may be fulfilled by the students’ completion of major requirements in one of the following programs or another approved, related field of study. All students need a minimum of 120 credits to graduate:

- Addiction and Dependency Counseling
- Anthropology Associate Degree
- Nursing
- Biology Biochemistry Counseling
- CSD Deaf Education Counseling
- Dental Hygiene
- Dietetics
- Health Care Administration Counseling
- Health Care Info Systems Management
- Management
- Health Education Counseling
- Physical Therapy Counseling
- Physical Therapy Pharmacy Counseling
- Physical Education Counseling
- Radiographic Science Counseling
- Respiratory Therapy Counseling
- Sign Language Studies Counseling
- Sociology Counseling
- Spanish Counseling
### Minor in French

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1101</td>
<td>Elementary French I</td>
<td>4</td>
</tr>
<tr>
<td>FREN 1102</td>
<td>Elementary French II</td>
<td>4</td>
</tr>
<tr>
<td>FREN 2200</td>
<td>Intermediate Enrichment (^1)</td>
<td>2</td>
</tr>
<tr>
<td>FREN 2201</td>
<td>Intermediate French I (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>FREN 2202</td>
<td>Intermediate French II (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>FREN 3301</td>
<td>French Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or FREN 3302</td>
<td>French Conversation and Composition II</td>
<td>3</td>
</tr>
</tbody>
</table>

One elective upper-division course in French 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)

\(^1\) This is a variable-credit course that may be repeated to obtain at least 2 credits.

### Minor in German

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 1101</td>
<td>Elementary German I</td>
<td>4</td>
</tr>
<tr>
<td>GERM 1102</td>
<td>Elementary German II</td>
<td>4</td>
</tr>
<tr>
<td>GERM 2200</td>
<td>Intermediate Enrichment (^1)</td>
<td>2</td>
</tr>
<tr>
<td>GERM 2201</td>
<td>Intermediate German I (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>GERM 2202</td>
<td>Intermediate German II (Satisfies General Education Objective 9)</td>
<td>4</td>
</tr>
<tr>
<td>GERM 3301</td>
<td>German Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or GERM 3302</td>
<td>German Conversation and Composition II</td>
<td>3</td>
</tr>
</tbody>
</table>

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)

\(^1\) This is a variable-credit course that may be repeated to obtain at least 2 credits.

### Minor in Japanese

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPN 1101</td>
<td>Elementary Japanese I</td>
<td>4</td>
</tr>
<tr>
<td>JAPN 1102</td>
<td>Elementary Japanese II</td>
<td>4</td>
</tr>
<tr>
<td>JAPN 2200</td>
<td>Intermediate Enrichment (^1)</td>
<td>2</td>
</tr>
</tbody>
</table>

JAPN 2201 Intermediate Japanese I (Satisfies General Education Objective 9) 4

JAPN 2202 Intermediate Japanese II (Satisfies General Education Objective 9) 4

JAPN 3301 Japanese Conversation and Composition I 3

or JAPN 3302 Japanese Conversation and Composition II 3

One elective upper-division course in Japanese 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 partially satisfies General Education Objective 9)

\(^1\) This is a variable-credit course that may be repeated to obtain at least 2 credits.

### Minor in Spanish

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1101</td>
<td>Elementary Spanish I (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 1102</td>
<td>Elementary Spanish II (or equivalent)</td>
<td>4</td>
</tr>
</tbody>
</table>

(Either of the two courses above partially satisfies General Education Objective 4)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 3301</td>
<td>Spanish Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 3302</td>
<td>Spanish Conversation and Composition II</td>
<td>3</td>
</tr>
</tbody>
</table>

One elective upper-division course in Spanish 3

EITHER the following THREE courses 10

- SPAN 2200 Intermediate Enrichment \(^1\)
- SPAN 2201 Intermediate Spanish I (or equivalent)
- SPAN 2202 Intermediate Spanish II (or equivalent)

(Both SPAN 2201 and SPAN 2202 satisfy General Education Objective 9)

OR the following THREE courses 10

- SPAN 2200 Intermediate Enrichment \(^2\)
- SPAN 2210 Spanish for Health Care I
- SPAN 2211 Spanish for Health Care II

Choose 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 partially satisfies General Education Objective 9)

\(^1\) 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 Language: French, German, or Japanese (18 credits)

Students take the following courses in their chosen language:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1101</td>
<td>Elementary I (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>1102</td>
<td>Elementary II (or equivalent)</td>
<td>4</td>
</tr>
</tbody>
</table>
**Advanced Certificate in Language: French, German, Japanese, or Spanish (21-24 credits)**

Students seeking the Advanced Certificate in Language must complete 24 credits in the chosen language, 6 of which must be at the 3000 or 4000-level, and must get a minimum score of Intermediate Mid on the ACTFL OPI (American Council of Teachers of Foreign Languages’ Oral proficiency Interview). Please see a department advisor for more information on the ACTFL OPI.

**Students take the following 18 credits:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1101 Elementary I (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>1102 Elementary II (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>2200 (or other 2000 course)</td>
<td>2 or more</td>
</tr>
<tr>
<td>2201 Intermediate I (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>2202 Intermediate II (or equivalent)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Students complete 6 upper division credits in their chosen language from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3301 Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>3302 Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>3303 Professional French, German, Japanese, or Spanish</td>
<td>3</td>
</tr>
<tr>
<td>3300 Intensive Conversation 1</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional upper division credits in the language 3

---

1 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.

**Associate of Arts Degree**

Students seeking an Associate of Arts degree in Russian or Shoshoni must complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/LANG 1107 Nature of Language (Satisfies General Education Objective 7)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1110 Introduction to Literature (Partially satisfies General Education Objective 4)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2211 Introduction to Literary Analysis</td>
<td>3</td>
</tr>
<tr>
<td>All of the General Education Objectives, using the courses below 1</td>
<td>36</td>
</tr>
</tbody>
</table>

Select ONE of the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMLT 2207 Contemporary European Culture</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2208 Cultures of the Spanish Speaking World</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2209 Cultures of East Asia</td>
<td>3</td>
</tr>
<tr>
<td>(Each of the three courses listed above satisfies General Education Objective 9)</td>
<td>9</td>
</tr>
</tbody>
</table>

Select ONE of the following sets:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 1101 Elementary Russian I</td>
<td>1</td>
</tr>
<tr>
<td>RUSS 1102 Elementary Russian II</td>
<td>1</td>
</tr>
</tbody>
</table>

1 The number of credits required for the General Education Objectives (p. 47) varies depending on the student’s performance on proficiency or placement tests in English, foreign languages, and mathematics.

**Bachelor of Arts in International Studies**

The International Studies Program offers to students an opportunity to expand their cultural, linguistic, and social horizons beyond their own local experience. As the world becomes increasingly interdependent, it demands of all of us an expanded knowledge of other people, their social and political institutions, and their culture. The program leads to a B.A. in International Studies. There is no B.S. option.

The International 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:

1. Political and Economic Development;
2. Language, Literature, and Culture; or
3. The United States and World Affairs.

**Program Requirements**

The following courses may be taken as part of the General Education Requirements (p. 47) of the University:

1. Sixteen (16) credits of a modern foreign language or the equivalent demonstrated competency. The languages offered at Idaho State University are Arabic, Chinese, French, German, Japanese, Russian, Shoshoni, and Spanish.
2. ECON 2201, Principles of Macroeconomics (3 credits).

**Major Requirements**

The major in International Studies, in addition to the general requirements stated above, requires thirty-seven (37) credits distributed in the following categories:

1. Required Courses,
2. Areas of Concentration, and
3. Electives.

**1. Required Courses (9 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 2200 Simulation 1</td>
<td>1</td>
</tr>
<tr>
<td>IS 4400 Simulation 1</td>
<td>1</td>
</tr>
</tbody>
</table>
Students must complete eighteen (18) credits to be chosen from within one of the following areas of concentration (select A, B, or C).

A. Political and Economic Development

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 2250 Introduction to Sociocultural Anthropology 3
ANTH 4402 Ecological Anthropology 3

Economics

ECON 4434 International Trade 3
ECON 4435 International Finance 3
ECON 4433 Economic Development 3

History

HIST 2251 Latin America 3
HIST 2252 East Asian History 3
HIST 2254 Middle Eastern Civilization 3
HIST 2255 African History and Culture 3

(Each of the 4 courses above satisfies General Education Objective 9)

HIST 3382 Russia 3
HIST 4430 Global Environmental History 3
HIST 4478 Imperialism and Progressivism 3

Political Science

POLS 3331 Comparative Politics Framework for Analysis 3
POLS 4432 Comparative Politics Change and Political Order 3
POLS 4433 Politics of Developing Nations 3
POLS 4434 Terrorism and Political Violence 3
POLS 4435 Topics in National and Regional Studies 3

Sociology

SOC 3335 Population and Environment 3

1 May be repeated once

2 In consultation with your advisor and when the topic relates to political and economic development.

B. Language, Literature, and Culture

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) 3
FREN 3301 & FREN 3302 French Conversation and Composition I and French Conversation and Composition II 6
FREN 3341 & FREN 3342 Survey of French Literature and Civilization I and Survey of French Literature and Civilization II 6
FREN 3381 French Current Affairs 3
FREN 4400 French Advanced Grammar 3
FREN 4470 Readings in French 2
FREN 4480 Independent Studies in French 3
FREN 4490 French Senior Seminar 3
HIST 2255 African History and Culture (Satisfies General Education Objective 9) 3
HIST 3323 Old Regime and French Revolution 3
HIST 3326 Twentieth Century Europe 3
POLS 4435 Topics in National and Regional Studies 3

German

CMLT 2207 Contemporary European Culture (Satisfies General Education Objective 9) 3
GERM 3301 & GERM 3302 German Conversation and Composition I and German Conversation and Composition II 6
GERM 3341 & GERM 3342 Survey of German Literature and Civilization I and Survey of Austrian and Swiss Literature 6
GERM 3381 German Current Affairs 3
GERM 4470 Readings in German 2
GERM 4480 Independent Studies in German 3
GERM 4490 German Senior Seminar 3
HIST 3326 Twentieth Century Europe 3
POLS 4435 Topics in National and Regional Studies 3

Japanese

HIST 2252 East Asian History (Satisfies General Education Objective 9) 3
JAPN 3301 & JAPN 3302 Japanese Conversation and Composition I and Japanese Conversation and Composition II 6
JAPN 4470 Readings in Japanese 2
POLS 4432 Comparative Politics Change and Political Order 3
POLS 4435 Topics in National and Regional Studies 3

Russian

CMLT 2207 Contemporary European Culture (Satisfies General Education Objective 9) 3
HIST 3326 Twentieth Century Europe 3
HIST 3382 Russia 3
POLS 4432 Comparative Politics Change and Political Order 3
POLS 4435 Topics in National and Regional Studies 3
RUSS 3301 & RUSS 3302 Russian Conversation and Composition I and Russian Conversation and Composition II 6
RUSS 4470 Readings in Russian 2

Spanish

CMLT 2207 Contemporary European Culture 3
HIST 2251 Latin America 3
### Minor in International Studies

#### General Requirements
1. Eight (8) credits in a foreign language or the equivalent demonstrated competency.
2. ECON 2201 (3 credits).

#### Minor Requirements
In addition to the General Requirements, students wishing to minor in International Studies must complete twenty-three (23) credits as detailed under Required Courses and Electives below.

#### Required Courses:
- POLS 2221: Introduction to International Relations 3
- IS 2200: Simulation 1
- IS 4400: Simulation 1

#### Electives

#### Arabic 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 1102 Elementary Arabic II: 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 Intermediate 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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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 hour.
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

Chinese 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

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 hour.
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

Comparative Literatures 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 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

French 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 hour.
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. F

FREN 2205 Study Abroad: 3-6 semester hour.
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 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 hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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 4445 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 4445L Translation and Interpretation Laboratory: 1-3 semester hour.
Intensive application of interpretation practices and procedures presented in FREN 4445. May be repeated 3 times with different content. PRE-or-COREQ: C- in FREN 3301 or FREN 3302. COREQ: FREN 4445. 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. PRE-or-COREQ: 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 4480 Independent Studies in French: 3 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 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 hour.
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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

German 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 hour.
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. F

GERM 2205 Study Abroad: 3-6 semester hour.
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 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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 hour.
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 4460L. 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. D

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 hour.
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 hour.
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

International Studies Courses

IS 2200 Simulation: 1 semester hour.
Preparation for, and participation in, a simulation of international affairs. Required for International Studies majors and minors. May be repeated for up to 2 credits. F, S

IS 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

IS 2203 Introduction to International Organizations: 3 semester hours.
This course takes a thematic approach to introduce students to international organizations (IOs), their formation, legal foundations, functions, operations, and performances. The approach to the course will be multidisciplinary and will present students with interdisciplinary perspectives. The course will evaluate the role of IOs in facilitating cooperation, resolving conflicts, and solving externality problems among member nations. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

IS 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

IS 3301 Seminar International Studies: 1-3 semester hour.
Selected topics of international interest. May be repeated for up to 6 credits. D

IS 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

IS 4400 Simulation: 1 semester hour.
Preparation for, and participation in, a simulation of international affairs. Required for International Studies majors and minors. May be repeated for up to 2 credits. F, S

IS 4493 Senior Thesis: 4 semester hours.
International Studies majors will write and present a senior thesis under direction of one of the faculty affiliated with the International Studies Program. F, S

IS 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

Japanese 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 hour.
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 hour.
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 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. F

JAPN 3303 Japanese Conversation and Composition III: 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 hour.
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 English using translated texts. Knowledge of the language is not required. PREREQ: ENGL 1102. 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 English using translated texts. Knowledge of the language is not required. PREREQ: ENGL 1102. D

JAPN 3399 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. May be repeated.

Languages and Literatures 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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 4497 Workshop: 1-2 semester hour.
Workshop aimed at development and improvement of skills. Does not satisfy requirement for major or minor. May be repeated. Graded S/U. D

LANG 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

Latin 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
**Russian 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 hour.**
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 hour.**
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. PREREQ: Permission of instructor. D

**Shoshoni Courses**

**SHOS 1101 Elementary Shoshoni I: 4 semester hours.**
Basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Equivalent to ANTH 1101. 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. Equivalent to ANTH 1102. PREREQ: ANTH/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: ANTH/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

**Spanish 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 hour.**
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 hour.
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. D

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. D

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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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 hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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 Translation and Interpretation: 4 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 for a total of 12 credits. D

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 hour.
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 hour.
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 hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content
History

Faculty
Chair and Professor
Marsh

Professors
Kuhlman
Njoku
Woodworth-Ney

Assistant Professors
Kole de Peralta
Stover
Youngs

Visiting Assistant Professor
Edsall

Lecturer
Sivitz

Adjoint Faculty
Barber
Benedict
Callis
Emfield
Francis
Leibert
Maheras
Reinke
Storms
Tremayne

Emeriti
A. Christelow
S. Christelow
Hatzenbuehler
Marley
Owens
Swanson

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.

Bachelor of Arts in History

Graduation Requirements
In addition to 8 of the 9 General Education Objectives (minimum 36 credits—see the General Education Requirements (p. 47) in the Academic Information section of this catalog), all history majors must take a minimum of 36 credits from the following six categories:

Category I: World Regions

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>(Each course above partially satisfies General Education Objective 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 1120</td>
<td>Global History Since 1500</td>
<td>3</td>
</tr>
<tr>
<td>(Satisfies General Education Objective 7.)</td>
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</tbody>
</table>

Category II: Research Skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2291</td>
<td>The Historian’s Craft</td>
<td>3</td>
</tr>
<tr>
<td>(Satisfies General Education Objective 8)</td>
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</tr>
<tr>
<td>HIST 4491</td>
<td>Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Category III: Course for Teachers

The following course is designed expressly for education majors. It may be taken as elective credit under Category IV below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4418</td>
<td>United States History for Teachers</td>
<td>3</td>
</tr>
</tbody>
</table>

Category IV: Upper Division United States History

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3307</td>
<td>Early North America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3308</td>
<td>Industrialization and Reform in the United States</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3309</td>
<td>Modern United States</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4421</td>
<td>Federal Indian Relations</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4423</td>
<td>Idaho History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4425</td>
<td>Women in the North American West</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4427</td>
<td>North American West</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4432</td>
<td>U.S. Environmental History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4465</td>
<td>US Political History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4485</td>
<td>Historical Geography of National Parks</td>
<td>3</td>
</tr>
</tbody>
</table>

Category V: Upper division world, comparative, and non-U.S. history

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3318</td>
<td>History of Christianity</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3322</td>
<td>Religious Reformation and Conflict</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3323</td>
<td>Old Regime and French Revolution</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3325</td>
<td>Early Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3326</td>
<td>Twentieth Century Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3382</td>
<td>Russia</td>
<td>3</td>
</tr>
</tbody>
</table>
Minor in History

World Regions (9 credits, at least 3 of which must be HIST 1101 or HIST 1102):

Students must take at least three of the following World Regions courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4430</td>
<td>Global Environmental History</td>
</tr>
<tr>
<td>HIST 4435</td>
<td>Colonial Frontiers</td>
</tr>
<tr>
<td>HIST 4437</td>
<td>Families in Former Times</td>
</tr>
<tr>
<td>HIST 4438</td>
<td>Women in Pre-Industrial Europe</td>
</tr>
<tr>
<td>HIST 4439</td>
<td>Women in World History</td>
</tr>
<tr>
<td>HIST 4441</td>
<td>The Viking Age</td>
</tr>
<tr>
<td>HIST 4443</td>
<td>English History</td>
</tr>
<tr>
<td>HIST 4444</td>
<td>Victorian England and After</td>
</tr>
<tr>
<td>HIST 4445</td>
<td>Modern Ireland</td>
</tr>
<tr>
<td>HIST 4446</td>
<td>Social and Economic History of Greece and Rome</td>
</tr>
<tr>
<td>HIST 4448</td>
<td>Medieval Social and Economic History</td>
</tr>
<tr>
<td>HIST 4450</td>
<td>Golden Age Castile</td>
</tr>
<tr>
<td>HIST 4478</td>
<td>Imperialism and Progressivism</td>
</tr>
<tr>
<td>HIST 4479</td>
<td>History of Disease, Medicine, and Society</td>
</tr>
<tr>
<td>HIST 4490</td>
<td>Cartography History and Design</td>
</tr>
<tr>
<td></td>
<td>and Cartography Lab</td>
</tr>
</tbody>
</table>

Category VI: Electives 9

Students must take at least 9 additional credits from courses listed in Categories III, IV, V, or the following list of courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
</tr>
<tr>
<td>HIST 1103</td>
<td>Ancient World</td>
</tr>
<tr>
<td>HIST 1120</td>
<td>Global History Since 1500 (Satisfies General Education Objective 7)</td>
</tr>
<tr>
<td>HIST 2221</td>
<td>African History and Culture</td>
</tr>
<tr>
<td>HIST 2224</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIST 2225</td>
<td>East Asian History</td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
</tr>
<tr>
<td>HIST 2252</td>
<td>Middle Eastern Civilization</td>
</tr>
<tr>
<td>HIST 2254</td>
<td></td>
</tr>
<tr>
<td>HIST 2255</td>
<td></td>
</tr>
</tbody>
</table>

Other Courses:

ONE additional 2000-4000 level course in History 3
TWO additional 3000-4000 level courses in History 6

Total Hours 18

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 major 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. 183).

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.

Courses

HIST 1101  Foundations of Europe: 3 semester hours.
Historical development of Europe since ancient times as a world region and its expanding importance in the first global age, to 1700. Partially satisfies Objective 6 of the General Education Requirements. F, S

HIST 1102  Modern Europe: 3 semester hours.
Europe’s rise and decline as the dominant world region during the second global age, from 1700 to the present. Partially satisfies Objective 6 of the General Education Requirements. F, S

HIST 1111 US History I to 1865: 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 US History II 1865 to present: 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. Satisfies Objective 7 of the General Education Requirements. F, S, Su

HIST 1120 Global History Since 1500: 3 semester hours.
This course takes a thematic approach to investigating major patterns of interaction between diverse human societies over the past 500 years. Students will critically analyze how cultural, social, economic, and/or environmental exchanges between people from different regions helped shape the modern world. Satisfies Objective 7 of the General Education Requirements. F, S
HIST 1199 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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 2249 World Regional Geography: 3 semester hours.
Introduction to world regions, using a geographic perspective as a vehicle, through the principal themes of human geography including, but not limited to, the spatial distributions and interactions of history, culture, economy, population, and environment. Satisfies Objective 9 of the General Education Requirements. F, S, Su

HIST 2251 Latin America: 3 semester hours.
Historical development in its global context of Latin America as a world region, defined by the religion, political institutions, and languages brought by Iberian conquerors and characterized by the contributions of Native Americans, Africans, and Europeans. 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 Eastern Civilization: 3 semester hours.
Middle Eastern Civilization from the emergence of Islam to the present. Emphasis on fundamentals of Islamic culture and modern political and social developments. 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 proposals used in historical preservation, dissemination, and/or research. May be engaged 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 2299 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.

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 Old Regime and French Revolution: 3 semester hours.
A study of traditional European institutions, society, and culture from 1650 to 1789 and their transformation in the age of the French Revolution and Napoleon, 1789-1815. 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. R2

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 unity of Europe in the European Union. D

HIST 3337 Archaeology and History of Southern Idaho: 2 semester hours.
A multicultural, ethnographic perspective on the history of the Snake River Plain. Course content focuses on the 1811 to 1890s time period and is rich in details based on information gathered from the earliest accounts and historical archaeological fieldwork. D

HIST 3364 Public History Internship: 1-6 semester hour.
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 3382 Russia: 3 semester hours.
Russian history and civilization from the medieval Kievan state to modern times. D

HIST 3399 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
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 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. R

HIST 4427 North 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 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 4435 Colonial Frontiers: 3 semester hours.
A comparative examination of conquest, resistance, and the interaction of cultures in frontier settings. Examines the experience of the frontier from Western and indigenous perspectives, discusses theories of cross-cultural interaction, and considers the importance of the frontier in global history. R2

HIST 4437 Families in Former Times: 3 semester hours.
Reconstructs the marriage patterns and domestic lives of people in pre-industrial Europe (1000-1700 AD). R2

HIST 4438 Women in Pre-Industrial Europe: 3 semester hours.
Compares and contrasts the social, cultural and economic roles of women from 700-1700 AD, and analyzes the impacts of historical change on their lives. 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 4441 The Viking Age: 3 semester hours.
Studies the cultures and societies of Scandinavia, England and continental Europe from 700 to 1100 AD. D

HIST 4443 English History: 3 semester hours.
Survey of the most important British political, constitutional, economic, and cultural developments from Anglo-Saxon times to the Victorian period. D

HIST 4444 Victorian England and After: 3 semester hours.
England, 1837 to the present. An examination of the cultural, social, political, and economic history of the most prosperous and productive period of English history including British national and imperial decline in the twentieth century. 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 Social and Economic History of Greece and Rome: 3 semester hours.
Investigates ways in which geography, demography and politics affected the mentalities and behaviors of social groups--women, patrons, clients and slaves--and the functioning of households, villages and cities. D

HIST 4448 Medieval Social and Economic History: 3 semester hours.
Analyzes the impact of political instability, migration and environment upon Europeans (AD 200-1400). D

HIST 4450 Golden Age Castile: 3 semester hours.
History of a major European country in an age of globalization, military revolution, religious conflict, and significant cultural development, 1450-1700. D

HIST 4461 Independent Study United States: 1-3 semester hour.
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 hour.
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 hour.
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 4478 Imperialism and Progressivism: 3 semester hours.
A study of the world 1880-1920. Movements of change within the West, Third World responses to the Western challenge, and global crisis. D
HIST 4479 History of Disease, Medicine, and Society: 3 semester hours.
A history of health, medicine, and disease, 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 17th century. R2

HIST 4485 Historical Geography of National Parks: 3 semester hours.
This class provides a survey of the environmental, social, cultural, economic and political history of the national park system of the United States, emphasizing the geographical development of the system from 1872 to the present. Students will discuss contemporary events, use a variety of technologies and mapping strategies, and will analyze issues and debates concerning national park establishment, use, management, and planning. R2

HIST 4486 National Parks Field Seminar: 3 semester hours.
Four-week summer field course, applying historic and geographic concepts and methods to a series of field problems focused on national parks of the United States. Su

HIST 4489 GIS for Social Sciences: 3 semester hours.
An introduction to geographic information systems theory and applications focusing on subjects related to human systems in historical context (census, health, urban communities, etc.). Students will work directly with GIS software and learn foundational data management and processing skills along with introductory spatial analysis. Requires competence in computer operating systems. S, Su

HIST 4490 Cartography History and Design: 3 semester hours.
History of how map-makers represent geographic, spatial data. Special attention to the elements of successful cartographic design. PREREQ: Admission to the Historical Resources Management Program or permission of instructor. COREQ: HIST 4490L. F

HIST 4490L Cartography Lab: 1 semester hour.
Focuses on the application of Cartographic design concepts and techniques discussed in lecture. Provides students with hands-on practice designing map products of publication quality. COREQ: HIST 4490. F

HIST 4491 Seminar: 3 semester hours.
Reading, discussion, and preparation for research papers on selected topics. F, S

HIST 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

HIST 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Idaho Museum of Natural History

Faculty

Director
Maschner
Research Curator and Anthropology Division Head; Idaho Virtualization Laboratory; Center for Archaeology, Materials and Applied Spectroscopy

Research Curator
Tapanila
Research Curator and Earth Science Division Head
Williams
Ray J. Davis Herbarium and Life Science Division Head

Affiliate Research Curator
Anderson
Betts
Crosby
Dudgeon
Fortsch
R. Holmer
Holte
Keeley
Link
Misarti
Peterson
Ray
Rountree
Schou
Thackray

Professors emeriti
Akersten
Holte
Trost

Museum Staff
Thompson
Registrar
Pokorny
Education Resources Coordinator
Tews
Anthropology Collections Manager
Thompson
Earth Sciences Collection Manager
Bala
Life Sciences and Ray J. Davis Herbarium Collections Manager
Commendador-Dudgeon
Earl R. Swanson Archaeological Repository Manager

Idaho Virtualization Laboratory
Clement
N. Holmer
Schlader

The Idaho Museum of Natural History was founded by legislative proclamation in 1977. At that time, the Museum received its state-mandated mission to enhance in the citizens of Idaho and visitors an understanding of and delight in Idaho's natural and cultural heritage. The Museum has four divisions: Anthropology, Earth Science, Life Science, and Public Programs. Each of the first three divisions is headed by a Research Curator, with other affiliate curators and collections managers. Significant collections include the Anthropology ethnographic collections, the Earl R. Swanson Archaeological Repository, extensive collections in vertebrate and invertebrate paleontology, and the Ray J. Davis Herbarium. The Museum houses the Idaho Virtualization Laboratory and the Center for Archaeology, Materials, and Applied Spectroscopy (CAMAS). Affiliated research institutes include the GIS Training and Research Center, the Informatics Research Institute, and the Don Crabtree Experimental Archaeology Lab.

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 (http://coursecat.isu.edu/undergraduate/allcourses/muse) in the All Courses section of the catalog.

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

Courses

MUSE 4411 Introduction to Museum Studies: 2 semester hours.
History, philosophy, purposes, organization and administration of museums. Practical work in collections 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 hour.
Individual projects based on student's background and interests. Could include, but not limited to, advanced work in collections management, exhibit design and construction, 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 hour.
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 hour.
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
Military Science

Faculty
Assistant Professor and Chair
Klein

Affiliate Faculty
Bures
Affiliate Faculty Instructor
Shaun Sloan
Affiliate Faculty/HRA

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 Enrollment Officer George Hansen, Reed Gym Room 223, (208) 282-3061. For more information please visit: http://military.isu.edu/index.shtml.

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 and Bachelor of Applied Technology). 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 log on to www.rotc.usaac.army.mil (http://www.rotc.usaac.army.mil). 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.

Admission Requirements

Advanced Course cadets must:

1. Have satisfied one of the following requirements: Successful completion of the Basic Course, the 28-day leader training course (LTC) 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 insure 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 physical fitness class every semester until commissioned.

**Required Courses/Activities**

**Basic Course (select a, b, or c):**

a) The following four courses:

- MSL 1101 Leadership and Personal Development & 1101L Leadership and Personal Development Laboratory 2
- MSL 1102 Introduction to Tactical Leadership & 1102L Introduction to Tactical Leadership Laboratory 2
- MSL 2201 Innovative Team Leadership & 2201L and Innovative Team Leadership Laboratory 3
- MSL 2202 Foundations of Tactical Leadership & 2202L 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 (For contracted cadets ONLY):**

- MSL 3301 Adaptive Technical Leadership & 3301L and Adaptive Team Leadership Laboratory 4
- MSL 3302 Leadership in Changing Environments & 3302L and Leadership in Changing Environments Laboratory 4
- MSL 3310 ROTC Physical Fitness 1 1
- MSL 3320 Leadership in US Military History & 3320L Leadership in a Complex World 3
- MSL 4401 Developing Adaptive Leaders & 4401L and Developing Adaptive Leaders Laboratory 4
- MSL 4402 Leadership in a Complex World & 4402L 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.

**Minor in Military Science**

(For contracted cadets ONLY)

**Required Military Science Courses:**

- MSL 3301 Adaptive Technical Leadership & 3301L and Adaptive Team Leadership Laboratory 4
- MSL 3302 Leadership in Changing Environments & 3302L and Leadership in Changing Environments Laboratory 4

**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.**

This is a 1-credit course, taken once each semester, for a total of 4 credits. Optional, if student qualifies.

**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
Music

Faculty
School of Performing Arts
Director and Professor:
Thom Hasenpflug

Department of Music
Chair and Professor
Hasenpflug

Professors
Anderson
Bond
Brooks
Earles
Lane
Livingston-Friedley

Assistant Professors
Cha
Helman
Kloss
York, K.

Adjunct Faculty
G. Adams
M. Adams
Attebery
Banyas
Cox
Drake
Friedley, G.
Hughes
O'Brien
Sorensen
York, M.

Emeriti
George
Stanek

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).

Department of Music

The Department of Music (see also http://www.isu.edu/sopa/programs/music/index.shtml) offers programs leading to Bachelor of Music, Bachelor of Arts, Bachelor of Science, and Bachelor of 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, Symphony Band, Marching Band, Symphony Orchestra, Concert Choir, ISU Women’s Choir, Idaho State Chorale, 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 facility.

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 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.

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.
Basic Music Requirements (common to all options)

- Language study in both French and German.

Requirements described in the Academic Information section of this catalog may select to specialize in voice, piano, guitar, strings, winds, or percussion, or in music education.

Prospective students are urged to become familiar with its contents. A handbook is available online at http://www.isu.edu/sopa/programs/music/MusicDepartmentHandbook.shtml which describes more completely the facilities, policies, course sequencing and departmental operations. Prospective students are encouraged to contact the music department for more information.

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 http://www.isu.edu/sopa/programs/music/MusicDepartmentHandbook.shtml 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.

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. 47) described in the Academic Information section of this Catalog). Voice majors are strongly encouraged to elect one year of foreign language study in both French and German.

Basic Music Requirements (common to all options)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1103</td>
<td>Theory of Music I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1104</td>
<td>Theory of Music II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1107</td>
<td>Recital Attendance (7 semesters)</td>
<td>0</td>
</tr>
<tr>
<td>MUSC 1108</td>
<td>The World of Music (Partially satisfies General Education Objective 4)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 1113</td>
<td>Aural Skills I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1114</td>
<td>Aural Skills II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2203</td>
<td>Theory of Music III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2204</td>
<td>Theory of Music IV</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2213</td>
<td>Aural Skills III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2214</td>
<td>Aural Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 3304</td>
<td>Music History I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3305</td>
<td>Music History II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3306</td>
<td>Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3311</td>
<td>Form and Analysis</td>
<td>2</td>
</tr>
</tbody>
</table>

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, not from Applied Music or Music Ensembles (Performing Organizations).

Instrumental Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 3320</td>
<td>Instrumental Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4411</td>
<td>Instrument Literature</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4412</td>
<td>Instrument Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>Applied Music (major instrument)</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Large Ensembles (band, orchestra, choir)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Chamber Music (instrumental ensemble)</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Piano Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 3319</td>
<td>Choral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>or MUSC 3320</td>
<td>Instrumental Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3395</td>
<td>Junior Recital</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 4413</td>
<td>Piano Literature</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4414</td>
<td>Piano Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>Applied Music (piano)</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Large Ensembles (band, orchestra, choir)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Chamber Music (keyboard collaboration)</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Voice Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 2225</td>
<td>Voice Diction</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3319</td>
<td>Choral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3325</td>
<td>Advanced Voice Diction</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4419</td>
<td>Voice Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 4420</td>
<td>Voice Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>Applied Music (voice)</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Large Ensembles (choir)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Opera Workshop</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Bachelor of Music Education

The Bachelor of Music Education is a nine-semester degree program designed to prepare students to teach music in secondary and elementary schools. Graduating students will be eligible for certification K-12, vocal and instrumental music.

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. 183) 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. 47) described in the Academic Information section of this Catalog). Voice majors are strongly encouraged to elect one year of foreign language study in both French and German.
Professional Education Requirements

EDUC 2201  Development and Individual Differences  3
EDUC 2204  Families Community Culture  3
EDUC 3301  Inquiring Thinking Knowing  3
EDUC 4401  Content Area Literacy  3
SPED 3350  Creating Inclusive Classrooms  3
EDUC 4492  Secondary Music Education Student Teaching Internship  7-14

Basic Music Requirements

MUSC 1103  Theory of Music I  3
MUSC 1104  Theory of Music II  3
MUSC 1107  Recital Attendance (7 semesters)  0
MUSC 1108  The World of Music (partially satisfies General Education Objective 6)  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.

Bachelor of Arts or Bachelor of Science in Music

The Bachelor of Arts in Music degree is a general music degree with additional electives in the arts and humanities. The Bachelor of Science in Music degree emphasizes the study of music with additional electives in science and mathematics. Seventy credits of non-music courses are required in the B.A. and B.S. degrees.

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. 47) 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

MUSC 1103  Theory of Music I  3
MUSC 1104  Theory of Music II  3
MUSC 1107  Recital Attendance (7 semesters)  0
MUSC 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 1117  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 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  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, not from Applied Music or Music Ensembles (performing organizations).

Minor in Music

Required Courses
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. 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.

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.

### Music: Applied Lessons Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSA 1120</td>
<td>Music Lessons Secondary Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 1130</td>
<td>Music Lessons Secondary Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 1140</td>
<td>Music Lessons Secondary Organ</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 1160</td>
<td>Music Lessons Secondary Strings</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 1164</td>
<td>Music Lessons Secondary Brass</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 1174</td>
<td>Music Lessons Secondary Woodwinds</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 1184</td>
<td>Music Lessons Secondary Percussion</td>
<td>1</td>
</tr>
</tbody>
</table>

### 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. **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, $230, 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.

### Departmental Courses

<table>
<thead>
<tr>
<th>Department</th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano</td>
<td>1121</td>
<td>2221</td>
<td>3321</td>
<td>4421</td>
</tr>
<tr>
<td>Voice</td>
<td>1131</td>
<td>2231</td>
<td>3331</td>
<td>4431</td>
</tr>
<tr>
<td>Organ</td>
<td>1141</td>
<td>2241</td>
<td>3341</td>
<td>4441</td>
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<tr>
<td>Strings</td>
<td>1161</td>
<td>2261</td>
<td>3361</td>
<td>4461</td>
</tr>
<tr>
<td>Brass</td>
<td>1165</td>
<td>2265</td>
<td>3365</td>
<td>4465</td>
</tr>
<tr>
<td>Woodwinds</td>
<td>1175</td>
<td>2275</td>
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<tr>
<td>Percussion</td>
<td>1185</td>
<td>2285</td>
<td>3385</td>
<td>4485</td>
</tr>
</tbody>
</table>

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. 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.
MUSA 1175 Applied Music Lessons Woodwinds: 1-3 semester hour.
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 hour.
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 2221 Applied Music Lessons Piano: 1-3 semester hour.
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

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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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

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

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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 4421 Applied Music Lessons Piano: 1-3 semester hour.
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

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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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

Music:Performance 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 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 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

Music Courses

MUSC 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 MUSC 1100 and MUSC 1108. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

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.
Aural 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 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

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 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 MUSC 1100 and MUSC 1108. Partially satisfies Objective 4 of the General Education requirements. F

MUSC 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

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 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 repertory. Selecting and preparing audition repertory. 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 3314 Jazz Improvisation: 1 semester hour.
Development of skills and knowledge necessary to become a competent jazz improviser. Activities include jazz theory, aural skills and practical applications. Proficient knowledge of scales and advanced instrumental technique are required. May be repeated for up to 2 credits. D

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 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 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 3397 Workshop: 1-2 semester hour.**  
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

**MUSC 3399 Experimental Course: 1-6 semester hour.**  
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

**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 hour.
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 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy
requirements for a major or a minor. May be repeated. 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 hour.
This course is not described in the catalog. The course title and number of credits
are announced in the class schedule by the scheduling department. Experimental
courses may be offered no more than three times
Theatre and Dance

Faculty

Director of the School of Performing Arts and Professor
Hasenpflug

Associate Director of the School of Performing Arts and Professor
Gross

Professors
Dienstfrey-Swanson
Schroder
Young

Associate Professors
Garibaldi
Harwood

Assistant Professor
Ballam

Senior Lecturer
Zimmerly

Adjunct Faculty
Brindusa
Espinosa
Head
Jorgensen
Phelps
Tucker
Zmolek

Emerita
Lloyd

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).

The Department of Theatre and Dance administers a Bachelor of Arts in Theatre, a Bachelor of Arts in Theatre, Film, and Video, a Bachelor of Arts in Dance, and a variety of minors in Theatre and Dance.

Theatre Program

Idaho State University’s Theatre Program (see also http://www.isu.edu/sopa/programs/theatre/index.shtml) 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.

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.

Theatre Program 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 which 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 which 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. 47) 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 http://www.isu.edu/sopa/programs/dance/index.shtml.

Bachelor of Arts in Theatre

Required Theatre Courses:
THEA 1107  Theatre and Dance Showcase (7 semesters)  0
THEA 1111  Stagecraft  3
THEA 1131  Voice and Diction  2
THEA 1191  Theatre Production  1
THEA 2211  Drafting  3
THEA 2214  Makeup  2
THEA 2221  Stage Costume Construction  3
THEA 2251  Fundamentals of Acting (Satisfies General Education Objective 7)  3
THEA 2252  Intermediate Acting Scene Study  3
THEA 4404  Problems in Acting  3
THEA 4424  Advanced Acting Styles  3
THEA 4455  Beginning Stage Direction  3
Select TWO of the following:  6
THEA 4419  Modern European Theatre
THEA 4420  American Theatre History
THEA 4470  Contemporary Theatre
Plus:  6
Upper division THEA electives

Other Required Courses:
DANC 1110  Elements of Movement  2
ENGL 4476  Shakespeare  3
PEAC 1139A  Beginning Fencing  1

Plus 2 credits from the following dance courses:  2
DAAC 1100  Dance Basics
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

General Minor in Theatre (Unspecified)
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0
In Addition:
THEA electives  20
(Program must be approved by the department)
Total Hours  23

Minor in Acting
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0
THEA 2211  Drafting  3
THEA 2214  Makeup  2
THEA 2221  Stage Costume Construction  3
THEA 3312  Stage Lighting Design  3
THEA 4402  Stage Costume History  3
THEA 4403  Stage Costume Design  3
THEA 4421  Basic Pattern Drafting for Stage Costuming  3
Theatre Production  3

Minor in Costume
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0
THEA 2211  Drafting  3
THEA 2214  Makeup  2
THEA 2221  Stage Costume Construction  3
THEA 3312  Stage Lighting Design  3
THEA 4402  Stage Costume History  3
THEA 4403  Stage Costume Design  3
THEA 4421  Basic Pattern Drafting for Stage Costuming  3
Theatre Production  3

Minor in Acting and Directing
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0
THEA 1111  Stagecraft  3
THEA 1131  Voice and Diction  2
THEA 2214  Makeup  2
THEA 2251  Fundamentals of Acting (Satisfies General Education Objective 7)  3
THEA 2252  Intermediate Acting Scene Study  3
THEA 4424  Advanced Acting Styles  3
THEA 4455  Beginning Stage Direction  3
Total Hours  25
1 Theatre Production courses may be taken for 8 cumulative credits.

Minor in Costume
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0
THEA 2211  Drafting  3
THEA 2214  Makeup  2
THEA 2221  Stage Costume Construction  3
THEA 3312  Stage Lighting Design  3
THEA 4402  Stage Costume History  3
THEA 4403  Stage Costume Design  3
THEA 4421  Basic Pattern Drafting for Stage Costuming  3
Theatre Production  3

Minor in Acting
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0

Minor in Costume
THEA 1101  Survey of Theatre (Partially satisfies General Education Objective 4)  3
THEA 1107  Theatre and Dance Showcase (4 semesters)  0

1 Theatre Production courses may be taken for 8 cumulative credits.
### Minor in Technical Theatre

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<tbody>
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<td>Survey of Theatre (Partially satisfies General Education Objective 4)</td>
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<tr>
<td>THEA 1107</td>
<td>Theatre and Dance Showcase (4 semesters)</td>
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<tr>
<td>THEA 1111</td>
<td>Stagecraft</td>
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<tr>
<td>THEA 4426</td>
<td>Advanced Scene Design</td>
<td>3</td>
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<tr>
<td></td>
<td>Theatre Production</td>
<td>1</td>
</tr>
<tr>
<td>THEA 1191</td>
<td>Theatre Production</td>
<td>3</td>
</tr>
<tr>
<td>or THEA 3391</td>
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</tr>
<tr>
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<td>Total Hours</td>
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1. Theatre Production courses may be taken for 8 cumulative credits.

### Minor in Technical Theatre and Costume

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>THEA 1101</td>
<td>Survey of Theatre (Partially satisfies General Education Objective 4)</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1107</td>
<td>Theatre and Dance Showcase (4 semesters)</td>
<td>0</td>
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<tr>
<td>THEA 1111</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2211</td>
<td>Drafting</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2214</td>
<td>Makeup</td>
<td>2</td>
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<tr>
<td>THEA 2221</td>
<td>Stage Costume Construction</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3304</td>
<td>Theatre Management</td>
<td>2</td>
</tr>
<tr>
<td>THEA 3311</td>
<td>Introduction to Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3312</td>
<td>Stage Lighting Design</td>
<td>3</td>
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<tr>
<td>THEA 4402</td>
<td>Stage Costume History</td>
<td>3</td>
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<tr>
<td>or THEA 4403</td>
<td>Stage Costume Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Theatre Production</td>
<td>1</td>
</tr>
<tr>
<td>THEA 1191</td>
<td>Theatre Production</td>
<td>3</td>
</tr>
<tr>
<td>or THEA 3391</td>
<td>Theatre Production</td>
<td>3</td>
</tr>
<tr>
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<td>Total Hours</td>
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</table>

1. Theatre Production courses may be taken for 8 cumulative credits.

### Minor in Theatre History and Dramatic Literature

<table>
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<tr>
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<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1126</td>
<td>Art of Film I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4476</td>
<td>Shakespeare</td>
<td>3</td>
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<tr>
<td>THEA 1101</td>
<td>Survey of Theatre (Partially satisfies General Education Objective 4)</td>
<td>3</td>
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<tr>
<td>THEA 1107</td>
<td>Theatre and Dance Showcase (4 semesters)</td>
<td>0</td>
</tr>
<tr>
<td>THEA 4400</td>
<td>Theatre Background I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4401</td>
<td>Theatre Background II</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4419</td>
<td>Modern European Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4420</td>
<td>American Theatre History</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4470</td>
<td>Contemporary Theatre</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>24</td>
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</tbody>
</table>

### Bachelor of Arts in Theatre, Film, and Video

Theatre, Film, and Video is a major designed for students interested in a career in producing, directing, and recording live performances. It approaches professional opportunities from both on-stage and video recording perspectives.

#### Objective:

To help all students obtain a level of achievement appropriate to entry-level professionals in their specialty areas or to use the confidence, expressiveness, and cooperative skills gained through their studies at ISU to succeed in a diverse range of careers in the world of technology and the arts.

The program's goals include developing in the student the following:

- The ability to communicate effectively orally and in writing;
- Competency in study and research skills;
- Competency in thinking clearly, logically, and independently;
- The ability to solve problems that arise in a professional setting and working within a collaborative art form;
- Competency with theatre, film, and video technology;
- Sufficient general knowledge to pursue and succeed in a career in theatre, film, and/or video;
- The ability to critique one's work and accept criticism.

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP 1110</td>
<td>Introductory Convergent Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2271</td>
<td>Introduction to Television Production</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2286</td>
<td>Visual Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3371</td>
<td>Video Editing and Compositing</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4475</td>
<td>Corporate Video Production</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1111</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2214</td>
<td>Makeup</td>
<td>2-3</td>
</tr>
<tr>
<td>or THEA 3312</td>
<td>Stage Lighting Design</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2251</td>
<td>Fundamentals of Acting (Satisfies General Education Objective 7)</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2252</td>
<td>Intermediate Acting Scene Study</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3311</td>
<td>Introduction to Scene Design</td>
<td>3</td>
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<tr>
<td>or THEA 4403</td>
<td>Stage Costume Design</td>
<td>3</td>
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<tr>
<td>THEA 4455</td>
<td>Beginning Stage Direction</td>
<td>3</td>
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**Plus ONE of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 4400</td>
<td>Theatre Background I</td>
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<tr>
<td>THEA 4401</td>
<td>Theatre Background II</td>
<td>3</td>
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<tr>
<td>THEA 4419</td>
<td>Modern European Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4420</td>
<td>American Theatre History</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4470</td>
<td>Contemporary Theatre</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select electives each semester from the list below:</td>
<td>36</td>
</tr>
<tr>
<td>ANTH 4494</td>
<td>Visual Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ART 1103</td>
<td>Creative Process</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1101</td>
<td>Digital Information Literacy (Satisfies General Education Objective 8)</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 2220</td>
<td>Introduction to International Film Studies</td>
<td>3</td>
</tr>
<tr>
<td>CMLT 3335</td>
<td>World Film Studies</td>
<td>3</td>
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<tr>
<td>CMLT 4435</td>
<td>Topics in World Film Studies</td>
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<td>Total Hours</td>
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</table>
AUDITIONS for placement into the appropriate level take place at the beginning of each semester. Dance majors are expected to enroll in a dance technique class every semester.

**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.

- **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** Aesthetic Issues in Dance 3
- **DANC 4401** Theatre Movement Workshop 2
- **DANC 3380** Dance Management and Production 2
- **DANC 4410** Dance Composition II 3

**Other Electives**

- **THEA 4456** Theatre Production 1
- **THEA 1191/3391** Theatre Production 1
- **THEA 2218** Stage Dialects 2
- **THEA 3390** Practicum Theatre Arts I 1-2
- **THEA 4490** Practicum Theatre Arts II 1-3
- **THEA 4410** Problems in Acting 3
- **THEA 4405** Advanced Costume Construction 3
- **THEA 4424** Advanced Acting Styles 3
- **THEA 4426** Advanced Scene Design 3
- **THEA 4456** Advanced Stage Direction 3

1 Theatre Production courses may be taken for 8 cumulative credits.

**Bachelor of Arts in 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.

- **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 2205** Dance in the Modern Era (Partially satisfies General Education Objective 4) 3
- **DANC 2210** Dance Composition I 3
- **DANC 3301** Aesthetic Issues in Dance 3
- **DANC 4410** Dance Composition II 3

**Dance Activity 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 two-step, 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 two-step, 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

Dance 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 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 HDoublet 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 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 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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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 hour.
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 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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

Theatre 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. Students will form a production staff and crews for university productions. 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 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 the theatre faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. F, S, Su

THEA 2211 Drafting: 3 semester hours.
Class explores mechanical drafting needs in the performing arts with special emphasis on scene and lighting design. Class offers an in-depth look at manual drafting and its extension toward computer-aided drawings. S

THEA 2214 Makeup: 2 semester hours.
Laboratory sessions on the technique of makeup. Includes participation on crews of university productions. F

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.
Methods of assembling stage costumes. Use of various fabrics and materials will be emphasized. 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 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

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 hour.
Beginning costume materials, including millinery, jewelry, and mask making. D

Experimentation with several types of fabric dye and fabric modification, such as stenciling, screen painting, batik methods, Devoe, and piping. D

THEA 3304 Theatre Management: 2 semester hours.
Consideration of administrative aspects of play production with emphasis on stage management, theatre management, publicity, and advertising. S

THEA 3311 Introduction to Scene Design: 3 semester hours.
Basic scene design emphasizing concepts of line, color, form, and texture; drafting techniques, perspective drawing, foreshortening, rendering, and model building will be introduced. PREREQ: THEA 2211. F

THEA 3312 Stage Lighting Design: 3 semester hours.
Theory and practice of lighting design as applied to various types of stage production. Includes script analysis, programming of lighting consoles, and methods of design incorporating the manipulation of the controllable properties of light. PREREQ: THEA 1111. 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 I: 1-2 semester hour.
Recital projects for intermediate student groups in various areas of theatre arts. May be repeated for a maximum of 4 credits with different titles. AS

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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

THEA 4400 Theatre Background I: 3 semester hours.
Theatre and drama, from their origins through the Jacobean period. AF
THEA 4401 Theatre Background II: 3 semester hours.
Study of the theatre and drama from the Spanish Golden Age through the "well-made play." 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. PREREQ: THEA 2221 or permission of instructor. 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 Problems in Acting: 3 semester hours.
Focuses on special acting problems such as characterization, movement, voice, pantomime, film and television acting. Content varies from year to year. May be repeated for up to 6 credits with permission of the instructor. PREREQ: THEA 2251, THEA 2252. AS

THEA 4405 Advanced Costume Construction: 3 semester hours.
A study in period corset and millinery construction. A lab course in which students gain practical experience and skills crucial to a career in costume technology. PREREQ: THEA 2221. AF

THEA 4406 Advanced Light Design: 3 semester hours.
Study of lighting design in performing arts. Students gain knowledge through actualized projects, study of television and film lighting, and exploration of the Controllable Properties including color. PREREQ: THEA 1111, THEA 3311, and THEA 3312. D

THEA 4412 Scenic Painting: 3 semester hours.
A study of painting techniques as used in theatrical scenery; theory, practice, and equipment will be investigated as they apply to the art of stage painting. AF

THEA 4414 Advanced Makeup: 2 semester hours.
Concentrated study of characterization, care, setting, styling and application of various types of wigs. Design and construction of polyfoam prosthesis. PREREQ: THEA 2214 or permission of instructor. AS

THEA 4419 Modern European Theatre: 3 semester hours.
Continental and British theatre and drama from 1850 to mid-twentieth century. 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.
Cutting patterns from measurements. Adjusting various patterns to designs. Alterations and fittings. PREREQ: THEA 2221 or permission of instructor. AF

THEA 4422 Period Pattern Drafting for Stage Costuming: 3 semester hours.
Use of the basic patterns to reproduce historical costumes from the 12th century to 1950. PREREQ: THEA 4405 or permission of instructor. OF

THEA 4424 Advanced Acting Styles: 3 semester hours.
Study of various period styles of acting including Greek, Medieval, Elizabethan, Restoration, and 19th century melodrama. The student will act in a series of special projects encompassing a variety of styles. PREREQ: THEA 2251, THEA 2252, or permission of instructor. AF

THEA 4426 Advanced Scene Design: 3 semester hours.
Study of scene design in performing arts and beyond. Students work toward portfolio-quality work in realized and non-realized projects in theatre, television, film, and design areas. PREREQ: THEA 1111, THEA 3311, and THEA 3312. D
Political Science

Faculty
Chair
Lybeck

Professors
Anderson
Gabardi
Lybeck
McBeth

Assistant Professors
Callen
Gleason
Hummel
Kirkpatrick

Adjunct Faculty
Eckert
Kellam

Emeriti
Burns
Foster
Hjelm
Maughan
Nilson

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.

Admission Requirements

1. Completion of a minimum of 24 credit hours with at least a 2.25 GPA.
2. Satisfactory completion of General Education Objectives (p. 47) 1 (English Composition), 2 (Principles of Speech), and 3 (Mathematics).
3. Completion of both POLS 1101, Introduction to United States Government, and POLS 2202, Introduction to Politics, (or their equivalents) with at least a C grade in each.
4. A signed agreement between the student and a member of the faculty agreeing to academic advising.

Bachelor of Arts or Bachelor of Science in Political Science

Requirements for the B.A. and B.S. Degrees:

In addition to 8 of the 9 General Education Objectives (a minimum of 36 credits—see the General Education Requirements (p. 47) in the Academic Information section of this catalog), political science majors are required to take the following courses from the “core curriculum”:

- **POLS 1101** Introduction to United States Government (partially satisfies General Education Objective 6) 3
- **POLS 2202** Introduction to Politics Critical Thinking and Analysis 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** Political Parties and Groups 3
- **POLS 4403** The Presidency 3
- **POLS 4404** The Legislative Process 3
- **POLS 4442** Constitutional Law 3
- **POLS 4443** Civil Rights and Liberties 3
- **POLS 4460** Senior Seminar 3

In addition to the 27 credits from the core curriculum, majors are required to earn a minimum of 12 elective credits selected from any of the courses in the political science curriculum (excluding POLS 4459).

Emphasis in Pre-law

Students who desire to complete this emphasis should consult with a pre-law advisor in the Department of Political Science.
Minor in Political Science

Students seeking a minor in political science must complete the following: POLS 1101, POLS 2202, six credits of core curriculum courses (excluding POLS 4460) and six elective political science credits (excluding POLS 4459).

Courses

POLS 1101 Introduction to United States Government: 3 semester hours.
This course 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

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 caliphs 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

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 4401 Political Parties and Groups: 3 semester hours.
The nature and development of political parties and pressure groups. S, Su

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, Su

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. F

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. S

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 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 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 hour. 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. S

**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 hour.**
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 hour.**
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 hour.**
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Psychology

Faculty

Chair and Professor
Lynch

Professors
Hatzenbuehler
Lawyer
Letzring
Rasmussen
Turley-Ames
Wong

Associate Professor
Brumley

Assistant Professors
Aubuchon-Endsley
Fairholme
Rieske
Stewart
Swift
Xu

Visiting Assistant Professor
Miyake

Adjunct Faculty
Landers
Pongratz
Simonson
Staley

Emeriti
Enloe
Joe
Roberts

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. At the undergraduate level, the major emphasizes the role of the liberal arts in higher education and personal development.

Goals for majors in the undergraduate program in psychology are listed below; each goal has associated objectives and competencies.

1. Be informed of the departmental goals and degree requirements for psychology majors,
2. Know about possible careers in and/or related to psychology,
3. Integrate knowledge and theories across, and think critically about, topics within the domains of psychology,
4. Be competent in library information technology and computer applications related to the study of psychology,
5. Be competent in scientific methodology and analysis as they apply to the study of psychology,
6. Communicate effectively, in both oral and written form, about issues within the field of psychology,
7. Have an understanding of the breadth of the field of psychology and its applications,
8. Have knowledge pertaining to individual and cultural differences and their importance in community and public policy decisions,
9. Perceive their undergraduate education and the skills they developed as beneficial in their chosen fields, and
10. Be prepared for post-graduate study.

Beyond the university’s General Education Objectives (p. 47), 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

The requirements for admission to the Psychology major are as follows:

• Successful completion of General Education Objectives (p. 47) 1, 2, and 3 (C- or better for Objective 1 and D- or better for Objectives 2 and 3)
• Successful completion of PSYC 1101 and PSYC 2201 (D- or better)
• GPA of 2.0 or better.

Bachelor of Arts or Bachelor of Science in Psychology

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology (partially satisfies General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2201</td>
<td>Careers in Psychology</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 2227</td>
<td>Basic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3303</td>
<td>Psychology Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

Core Areas

Category 1: Select two of the following four courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 2225</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3301</td>
<td>Abnormal Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3341</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4401</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
</tbody>
</table>
### Elective Courses

- Students may choose fifteen (15) 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.
- 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.

### Minor in Psychology

#### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1101</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2227</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3303</td>
<td>4</td>
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</tbody>
</table>

#### Category 1: Select one of the following four courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC 2225</td>
<td>3</td>
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<tr>
<td>PSYC 3301</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3341</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4401</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Category 2: Select one of the following four courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4431</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4445</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4446</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4472</td>
<td>3</td>
</tr>
</tbody>
</table>

### Electives

- The student must take six additional elective credits in psychology

### Courses

**PSYC 1101 Introduction to General Psychology: 3 semester hours.**
Introduction to the study of human behavior and mental processes, with emphasis on history, theories, research methods and findings, and applications in psychology's major areas of study: biological, cognitive, learning, personality, social processes, development, 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 2211 Personality and Adjustment: 3 semester hours.**
The lifelong development of personality and the search for self-realization will be emphasized. Opportunities and crises common at various periods will be discussed. PREREQ: PSYC 1101. 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 hour.**
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

**PSYC 3301 Abnormal Psychology I: 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. PREREQ: PSYC 1101. F, S

**PSYC 3302 Abnormal Psychology II: 3 semester hours.**
Alcoholism and drug dependence, psychosomatic disorders, organic brain syndromes, and mental retardation. Contemporary approaches to assessment and treatment of abnormal behavior, including a survey of psychotherapeutic methods. PREREQ: PSYC 1101 and PSYC 3301. D

**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: 2 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. PREREQ: PSYC 1101. 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. PREREQ: PSYC 1101 and 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. PREREQ: PSYC 1101 or permission of instructor. 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 and PSYC 2225. D

PSYC 3369 AIDS: 1 semester hour.
This survey course provides an overview of AIDS 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. PREREQ: PSYC 1101 or permission of instructor. D

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. D

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. PREREQ: PSYC 1101 or PSYC 4431 or PSYC 4446. 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. PREREQ: PSYC 1101 or permission of instructor. 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. PREREQ: PSYC 1101; 24 credits in psychology or permission of instructor. F

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 hour.
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: PSYC 1101 and permission of instructor. F, S, Su

PSYC 4425 Psychology Clinic Practicum: 1-2 semester hour.
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: PSYC 1101 and 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. PREREQ: Six hours of Psychology beyond PSYC 1101 or permission of instructor. 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. PREREQ: Six hours in Psychology beyond PSYC 1101 or permission of instructor. 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. PREREQ: PSYC 1101. PREREQ or COREQ: PSYC 3303. 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. PREREQ: PSYC 1101 or permission of instructor. 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 1101 and PSYC 2225. D

PSYC 4463 Clinical Psychology and the Law: 3 semester hours.
An introduction to the field of forensic psychology by exposing students to the primary areas in which clinical psychology 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. PREREQ: PSYC 1101. 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

PSYC 4467 Topics in Psychology: 1-3 semester hour.
Selected topics in psychology. Contents vary. May be repeated with different content and departmental approval up to 3 times for a total of 9 credits. 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 hour.
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 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. PREREQ: PSYC 1101 or permission of instructor. Graded S/U. D

PSYC 4499 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Sociology, Social Work, and Criminology

Faculty
Chair and Associate Professor
Hearn

Associate Professors
Joskin
Jensen-Hart

Assistant Professors
Casey
Kim
Running
Thomas
Williams

Affiliate Faculty
Adamcik

Emeriti
Aho
Bryan
Hunter
Pierson

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 a 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, and the Master of Arts degrees in sociology. For a full description of the M.A. degrees, refer to the Graduate Catalog (http://coursecat.isu.edu/graduate). The department also houses the interdisciplinary Minor in Gender and Sexuality Studies.

Admission to the Social Work Program
Application for admission to the Social Work Program is required of all students desiring to progress toward a social work major. Admission to the Social Work Program is competitive. Students may apply to the major at the completion of the sophomore year and after completing or with current enrollment in required prerequisite Objectives and courses.

The following criteria must be met for an applicant to be eligible for consideration for admission to the social work major:

1. Completion of a minimum of 61 credit hours with a minimum cumulative GPA of 2.75 for the semester at the time of application.
2. Completion of or with current enrollment in the following Objectives and departmental requirements: Objectives 1, 3, 4, and 5, and 6, and SOC 2248, SOWK 2271, SOWK 2272, and MATH 1153 with a minimum grade of “C” in each course.
3. 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 an unofficial copy of your transcript. See online application form for further details, at http://www.isu.edu/sociology/pdf/swapp.pdf.
4. Students must have a background check performed by https://www.certifiedbackground.com/ The cost to the student is approximately $45. The criminal history check must be “in progress” or completed before application is submitted. A background check conducted by the Department of Health & Welfare within six months of application to the Social Work program is acceptable with documentation. Senior practicum agencies may require an additional background check. For further information, please refer to the Faculty/Staff Handbook at http://www.isu.edu/fs-handbook/part6/6.4/6.4o.html.
5. Completion of a Declaration of Major form.

Application Deadline
The above admission materials must be completed and submitted to the Department of Social Work prior to February 15 for fall semester admission, and prior to October 1 for Spring semester admission.

The Social Work Program does not grant credit for previous life or work experience.

All social work majors are required to meet the above standards before they may enroll in upper division social work courses (those numbered 3000 and above). Pre-social work students enrolled in upper division courses without admission to the major will be withdrawn until major admission requirements have been met.

Admission to 4000 Level Courses
Admission to the senior field courses (SOWK 4476-SOWK 4477) is contingent upon completion of the following:

a. Completion of SOC 3308/SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 3309 with a minimum GPA of 2.5;
b. Maintenance of GPA to senior year at the 2.5 level;
c. Submission of form applying for senior field experience;
d. Interview by program senior field placement coordinator prior to notification of field agencies.

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.
Sociology majors must attain a grade of "C" or better in all required and elective courses.

Students completing the Bachelor of Arts must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements p. 47 described in the Academic Information section of this catalog.)

### Required Courses for Graduation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3301</td>
<td>Classical Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC/SOWK 3308</td>
<td>Sociological Methods and Social Work Research</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3309</td>
<td>Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4403</td>
<td>Contemporary Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4462</td>
<td>Power Class and Prestige</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses**

Total Hours: 36

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1 In addition to the required courses, students are expected to complete 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.

### Bachelor of Arts in Sociology with an Area of Concentration in Criminology

The department offers an area of concentration in Criminology with a BA in Sociology. Students choosing this area of concentration must take the required courses for the BA in Sociology (18 credits in required courses). In addition, students must take four required courses in Criminology (13 credits), and 9 credits in elective courses from a list of selected courses. We also recommend certain General Education courses and additional electives to complement the area of concentration in Criminology.

### Required Courses in Sociology

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
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</tr>
<tr>
<td>SOC 4462</td>
<td>Power Class and Prestige</td>
<td>3</td>
</tr>
</tbody>
</table>

### Required Courses for the Area of Concentration in Criminology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 2231</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3310</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4431</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2295</td>
<td>Criminal Justice Internship</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective Courses**

Total Hours: 9

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With the approval of a Department of Sociology faculty member, the student shall select nine credit hours from any of the electives listed for the sociology major.

### 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.

### General Education Requirements

Students completing the Bachelor of Arts must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements p. 47 described in the Academic Information section of this catalog.) Certain Objectives may be met using Social Work Program requirements; for example:

1. Objective 3: MATH 1108 (Intermediate Algebra) and MATH 1153 (Introduction to Statistics);
2. Objective 5: BIOL 1100, BIOL 1100L (Concepts Biology: Human Concerns, and Lab);
3. Objective 6: ECON 1100 (Economic Issues) and PSYC 1101 (Introduction to General Psychology) or SOC 1101 (Introduction to Sociology).

### Recommended electives that will satisfy or partially satisfy General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1102</td>
<td>Social Problems (partially satisfies General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2248</td>
<td>Critical Analysis of Social Diversity (satisfies General Education Objective 7)</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1101</td>
<td>Elementary Spanish I (satisfies General Education Objective 4)</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 1102</td>
<td>Elementary Spanish II (satisfies General Education Objective 4)</td>
<td>4</td>
</tr>
</tbody>
</table>

### Recommended additional electives

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 2248</td>
<td>Politics and the Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2249</td>
<td>Introduction to Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4443</td>
<td>Civil Rights and Liberties</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2200</td>
<td>Child Abuse</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3301</td>
<td>Abnormal Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2250</td>
<td>Women Crime and Corrections</td>
<td>3</td>
</tr>
</tbody>
</table>

### Minor in Sociology

### Required Courses

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3301</td>
<td>Classical Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC/SOWK 3308</td>
<td>Sociological Methods and Social Work Research</td>
<td>3</td>
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<td>SOC 3309</td>
<td>Social Statistics</td>
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</tr>
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<td>SOC 4403</td>
<td>Contemporary Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4462</td>
<td>Power Class and Prestige</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses**

Total Hours: 9

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1 This course may be repeated with different content.
Social Work Requirements

**PSYC 3301** Abnormal Psychology I 3

**SOC 1101** Introduction to Sociology (partially satisfies General Education Objective 6) 3

**SOC 2248** Critical Analysis of Social Diversity 3

**SOWK 2271** Introduction to Social Work 3

**SOWK 2272** Human Behavior and the Social Environment 3

**SOC/SOWK 3308** Sociological Methods and Social Work Research 3

**SOC 3309** Social Statistics 3

**SOWK 3371** Social Welfare Policy 3

**SOWK 3372** Practice with Individuals and Families 3

**SOWK 3373** Group Work 3

**SOWK 3375** Advanced Social Work Theory and Practice 3

**SOWK 4476** Social Work Field Practicum I 6

**SOWK 4477** Social Work Field Practicum II 6

**SOWK 4494** Community Organization and Social Change 3

**SOWK 4498** Integration of Social Work Methods 3

Upper-Division SOC, SOWK, Criminal Justice, or PSYC courses 1

Total Credits 6

Note: Upper division courses are those numbered 3000-4999. Social Work students must attain a C or better in departmental and Social Work requirements.

1 Social Work Electives Include:

- SOWK 4482
- SOWK 4485
- SOWK 4486
- SOWK 4491 *

*May be repeated; with different content; up to 9 credits may be used toward graduation.

Associate of Arts in Criminology

In their second semester, students need to choose an advisor in the Criminology Program.

Students completing the Associate of Arts must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (p. 47) in the Academic Information section of this catalog).

Required Courses

**SOC 1101** Introduction to Sociology (partially satisfies General Education Objective 6) 3

**SOC 2231** Juvenile Delinquency 3

**SOC 2248** Critical Analysis of Social Diversity (satisfies General Education Objective 7) 3

**SOC 2295** Criminal Justice Internship 4

**SOC 3310** Introduction to Criminal Justice 3

**SOC 4431** Criminology 3

Elective Courses

Complete 9 credits from the following

**POLS 2249** Introduction to Criminal Law

**PSYC 2205** Human Sexuality

**PSYC 2225** Child Development

or **PSYC 3301** Abnormal Psychology I

**SOC 2250** Women Crime and Corrections

**SOC 4436** Elite Deviance and Crime

SOC 4438 Sexual Crimes

SOC 4492 Topics in Criminal Justice 1

1 This course may be repeated with different content.

Credit Requirements for Graduation:

- General Education Requirements 36
- Associate of Arts in Criminology 2 22-28
- Electives 2 0-6

Total Credits 64

2 Six (6) of the 28 major credits may double-count as General Education thereby requiring up to six (6) additional elective credits to reach 64 total credits.

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).

Required Courses

**SOC 2201** Introduction to Gender and Sexuality Studies 3

**SOC 3321** Families in American Society 3

**SOC 4412** Sexuality and the Body 3

**SOC/SOWK 4438** Sexual Crimes 3

Elective Courses 6

Complete 6 credits from the following list of electives:

**HIST 2201** Women In U.S. History

**PSYC 2205** Human Sexuality

**SOC 2250** Women Crime and Corrections

**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

*May be repeated; with different content; up to 6 credits may be used toward graduation.*
SOC 4483 Independent Problems in Sociology 1

Total Hours 18

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.

Social Work 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 Behavior and the Social Environment: 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 3371 Social Welfare Policy: 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. S

SOWK 3372 Practice 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 Group Work: 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 Advanced Social Work Theory and Practice: 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 4417 Interdisciplinary Evaluation Team: 1 semester hour.

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 4476 Social Work Field Practicum 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/SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 3309. (For Spring Only: COREQ: SOWK 4477.) F, S

SOWK 4477 Social Work Field Practicum 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/SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 3309. PREREQ or COREQ: SOWK 4476. COREQ: SOWK 4498. F, S

SOWK 4482 Independent Problems: 1-6 semester hour.
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
SOC 4495 Grief and Loss for the Helping Professional: 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

SOC 4486 Family Issues for the Helping Professional: 3 semester hours.
Advanced course focusing on understanding families and family issues. Explore techniques for assessment and intervention drawn from various current theories. Special focus on at-risk youth and the effects on family dynamics. D

SOC 4487 Child Welfare Issues: 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

SOC 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

SOC 4494 Community Organization and Social Change: 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. F

SOC 4498 Integration of Social Work Methods: 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 3371, SOWK 3372, SOWK 3373, and SOWK 3309. COREQ: SOWK 4477. F, S

SOC 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

Sociology 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 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. PREREQ: SOC 1101 or SOC 1102. 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 2250 Women Crime and Corrections: 3 semester hours.
Analysis of theories and research applicable to women's involvement in crime, correctional centers and in professional roles in the criminal justice system. PREREQ: SOC 1102. S

SOC 2295 Criminal Justice Internship: 1-4 semester hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 descriptive 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. PREREQ: SOC 1101 or permission of instructor. F

SOC 3321 Families in American Society: 3 semester hours.
American families in social-historical contexts. Contemporary issues confronting families as social institutions and impact of family interaction dynamics. PREREQ: SOC 1101 or permission of instructor. 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 Population and Environment: 3 semester hours.
The scientific study of population and its environmental consequences. 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. PREREQ: SOC 1101. 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. PREREQ: SOC 1101. F

SOC 3399 *Experimental Course*: 1-6 semester hours.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. May be repeated

SOC 4402 *Proseminar in Sociology*: 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. PREREQ: SOC 1101. 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. PREREQ: SOC 1101 or SOC 1102. 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 4467 *Community Networking Cultivating the Sociological Imagination*: 3 semester hours.
Advanced study of the sociology of community through readings, class discussions, lectures, and a community networking internship. S

SOC 4482 *Sociology Internship*: 1-3 semester hour.
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

SOC 4489 *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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
College of Business

Faculty
Dean
Thomas Ottaway, Ph.D.

Associate Dean for Information Assurance
Corey Schou, Ph.D.

Associate Dean
Joanne Tokle, Ph.D.

Idaho State University 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 eight majors available—Accounting, Economics, Finance, General Business, Business Informatics, Health Informatics, Management, and Marketing. The College of Business also offers minors in Business Administration, Economics, Informatics, Marketing, and International Commerce. In addition, the Master of Business Administration and Master of Accountancy degrees are offered through the Graduate School. The B.B.A., M.B.A., M.Acc. 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, a quality M.B.A. program is 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, finance, information systems, 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.

Laptop Requirement
Undergraduate students in the College of Business are required to have a laptop computer that they can bring to class with them when they begin taking 3000–level courses. We recommend that you purchase your computer prior to taking MGT 2216 and ACCT 2201, but it is not strictly required for those courses. It is, however, required for INFO 3301 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.

The goal of the M.Acc. program is to further develop students' professional knowledge, competency, skills and values for a career in accountancy with an emphasis on public accountancy. Advanced content and application in the graduate program is focused on enhancing students' technical competency, and critical thinking, interpersonal, communication, and judgment skills beyond that of an undergraduate program.

EITC/Idaho State University Program
Eastern Idaho Technical College (EITC) and the College of Business cooperatively deliver an Associate of Applied Science (A.A.S.) degree in Marketing and Management. The A.A.S. is offered by EITC and students interested in the program should consult the EITC catalog for a detailed listing of the requirements. The purpose of this program is to provide Idaho Falls area residents with a Business Associate degree that combines the immediate job skills of a technical program with the academic foundation needed for the Bachelor of Business Administration (B.B.A.) degree. Students in this program must meet the general admission requirements of both EITC and Idaho State University.

The A.A.S. combines 32-36 credits of EITC business courses, 15-18 credits of Idaho State University Business and Economics courses, and 23-26 credits of General Education courses for a total Associate degree of 75 credits. Those completing this cooperative A.A.S. and who include MATH 1143 and MGT 2216...
within their A.A.S. programs will need approximately 74–77 credits to complete a B.B.A. in Finance, Management or Marketing from Idaho State University.

Those who have completed the EITC/Idaho State University Associate of Applied Science in Marketing and Management:

1. May be admitted to Business major status if they maintain a 2.25 or higher grade point average (GPA) in the program and a 2.25 GPA in these eight courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2216</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2261</td>
<td>Legal Environment of Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Will be awarded 13 un-designated lower division Business credits towards the requirements of the B.B.A. upon admission to Business major status.

3. Will be waived from the ACCT 2201 requirement for the B.B.A. if they have earned a grade of "C" or better in ACCT 2202. Specific credit for ACCT 2201 will, however, not be awarded.

### Business Majors

In order to enroll in any upper division course, except Economics and 3303 courses, all BBA majors must meet with either the College of Business Advisor or a College of Business Faculty Advisor to determine if the student has:

1. Completed at least 58 credit hours. The 58 hours may include transfer credits.
2. Fulfilled the minimum criteria for enrolling in College of Business upper division courses.

Students in non-BBA majors will still need to fulfill the prerequisites for the individual upper division College of Business classes.

### Minimum Criteria for Enrolling in College of Business Upper Division Courses

Students must be officially admitted to Idaho State University. Students must successfully complete the following lower division courses or their equivalent. Successful completion means that students must have passed each course with a grade of C- or better and have a 2.0 grade point average among these required courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2201</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech (Fulfills General Education Objective 2)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics (Partially Fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics (Partially Fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing (Fulfills General Education Objective 1)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2216</td>
<td>Business Statistics (Fulfills General Education Objective 3)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>College Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

### Bachelor of Business Administration

#### B.B.A. Objective

The objective of Idaho State University’s Bachelor of Business Administration program is to assist students to take their places in business and society, domestic and worldwide. The program develops in students inquiring minds and critical-thinking so they can analyze problems, implement courses of action, and function within an organization.

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
- INFO 4488 Informatics Senior Project 3 credits
- MGT 4411/MKTG 4411 Small Business and Entrepreneurship Practicum 3 credits

The College delivers daytime, nighttime, and online courses to meet the needs of both traditional and nontraditional students within the Idaho State University primary service area.

#### General Education Requirements

Students pursuing the Bachelor of Business Administration degree must complete 8 of the 9 University General Education Objectives, plus any other Objective courses required to bring the minimum credit total for Objective courses to 36 (see the General Education Requirements (p. 47) in the Academic Information section of the catalog). Note that certain Objectives may be met by specific College of Business requirements listed below: Objective 3 by MGT 2216; Objective 6 is partially satisfied by ECON 2201 or ECON 2202. Both of the latter courses cannot be used to satisfy that Objective, but the second could be chosen as an elective Objective course.

#### Specific College of Business Graduation Requirements

Several of the specific graduation requirements listed below may also be used to satisfy General Education Requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP 2201</td>
<td>Business and Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics (partially fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics (partially fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing (fulfills General Education Objective 1)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3308</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 3307</td>
<td>Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>
MATH 1143 College Algebra 1
Total Hours 3

Total Hours 18

1 Successful completion of MATH 1147, MATH 1160 or MATH 1170 will also fulfill this requirement.

Note: A minimum grade of C- (C Minus) or better is required to fulfill all College of Business Core Requirements, Major Requirements, and Specific Graduation Requirements. The C- or better requirement extends to satisfying prerequisites for all College of Business courses.

A minimum of 51 credits in courses not taught by the College of Business is required to graduate. The minimum total required to graduate is 120 credits.

Core Requirements
To assure a minimum level of competence in all functional areas of business, the College of Business requires each student to complete the following courses:

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
BA 4410 Implementing Professional Development III 1
INFO 3301 Introduction to Informatics and Analytics 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 3312 Individual and Organizational Behavior 1 3
MGT 3345 Critical Analysis and Creative Problem Solving 3
MGT 3329 Operations and Production Management 3
MGT 4460 Problems in Policy and Management 3
MKTG 2225 Basic Marketing Management 2 3

Total Hours 42

1 HCA 3350 is the recommended substitute for MGT 3312 for students seeking the Major in Health Care Informatics.

2 HCA 4473 is the recommended substitute for MKTG 2225 for students seeking the Major in Health Care Informatics.

College of Business Residency Requirement
Of the last 50 credits applied to meet graduation requirements, 32 must be completed in residence at Idaho State University including adult learning centers. At least half of all business credits taken to meet degree requirements and half of the credits used to meet specific major requirements must be taken in Pocatello or Idaho Falls. No more than 16 credits of correspondence may be used to satisfy degree requirements.

Repeating Business Courses
No College of Business course may be repeated more than once, except by petition approved by the department chair. Students wishing to repeat a course more than once will begin the petition process by meeting with the instructor of the course to discuss potential remedies to past performance problems. If a student has a major outside the College of Business, the College of Business will confer with the student's department chair when making a decision regarding the petition.

Alternatives to MATH 1143 Requirement and Prerequisites
The requirement and prerequisite is met by the student who achieves any one of the following alternatives:

- ACT Math score of 27 or greater
- SAT Math score of 620 or greater
- Compass College Algebra (MAPL 3) score of 51 or greater
- Compass Trigonometry (MAPL 4) score of 51 or greater

Associate of Science in Business
To earn an Associate of Science in Business, a student must complete 71 total credits as listed below.

General Education Requirements
Students pursuing the Associate of Science in Business degree must complete the University General Education Requirements 8 of the 9 General Education Objectives, a minimum of 36 credits--see the General Education Requirements (p. 47) in the Academic Information section of this catalog, some of which are satisfied by courses that are already a part of the College's requirements.

Business and Economics Core

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 Microeconomics 3
ECON 2202 Principles of Macroeconomics 3
INFO 1101 Digital Information Literacy 3
MGT 2216 Business Statistics 3
MKTG 2225 Basic Marketing Management 3
Electives 1 6

Total Hours 30

1 Upper-level business courses may be used to meet this requirement.

A student taking upper division Business classes must be admitted in a Business major OR be a non-Business major with junior standing who has completed General Education Objectives 1, 2, and 3 and four other Objectives.

Minor in Informatics
Students receiving degrees in all colleges may satisfy the requirements for an Informatics minor by completing the following courses. Students must choose the Business Informatics option or the Health Informatics option. Students pursuing this minor should seek assignment of a minor advisor early in their program to complete a Program of Study Agreement.

Required Courses:

INFO 1181 Informatics and Programming I 3
or CS 1181 Computer Science and Programming I
INFO 1182 Informatics and Programming II 3
or CS 1182 Computer Science and Programming II
INFO 3307 Systems Analysis and Design 3
INFO 4407 Database Design and Implementation 3

Select ONE of the following options:

A) Business Informatics Option
INFO 2285 Software and Systems Architecture

Plus one additional 4000-level Informatics course
Minor in International Commerce

Most often chosen by majors in Finance, Management, or Marketing, the minor in International Commerce may be added to any Business major. Requirements are:

1. Major in Business. To be successful in an international business enterprise, a baccalaureate degree holder must be able to contribute to one of the - functional operations of the business. For this reason, the minor in International Commerce is limited to students obtaining a major in Business.

2. Foreign Language Proficiency. Students must demonstrate a proficiency in a foreign language. This requirement could be met through:
   a. Completion of a second semester of intermediate level foreign language with a grade of C or better.
   b. Achieving a score on the appropriate language placement exam equivalent to a grade of C in second semester intermediate level language. International students whose primary language is not English would be exempt from this requirement. Credits in foreign language used to meet this requirement could also be used to meet General Education requirements.

3. Courses to Develop Cultural Awareness. Nine credit hours must be taken in courses approved by the assistant dean that compare different cultures or examine the history, politics, social structures, or cultures of countries other than those of the student. Courses taken to meet this requirement may also be used to meet General Education requirements when appropriate.

4. International Commerce Courses. Nine credit hours must be taken in international or comparative business or economics. Courses taken to meet this requirement may be used to meet major requirements when appropriate, but are in addition to FIN 3317 (Fundamentals of Investments) which is required of all Business majors. Approved courses include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 4434</td>
<td>International Trade</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4435</td>
<td>International Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4475</td>
<td>International Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4465</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4465</td>
<td>International Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor in Business (for Non-Business Majors only)

The minor in Business augments the undergraduate education of non-business students by providing exposure to courses in Accounting, Finance, Marketing, Management, and Computer Information Systems. 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.

Admissions to the minor program is competitive. To apply, students must complete the application form available in the Business Undergraduate Advising Office prior to taking any minor courses. Eligibility requirements to enroll in the Business minor program are:

- A minimum GPA of 2.25
- Completion of General Education Objectives 1, 2, and 3 prior to enrolling in any business course
- Sophomore standing or higher (at least 26 credit hours)
- An intended major other than Business

In the event that enrollment in the program exceeds the available resources, student selection will be made by criteria determined by the College of Business.

Students receiving degrees in other colleges may satisfy the requirements for a minor in Business by completing the following courses (total 18 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3303</td>
<td>Accounting Concepts</td>
<td>3</td>
</tr>
<tr>
<td>BA 1110</td>
<td>The World of Business</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3301</td>
<td>Introduction to Informatics and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3303</td>
<td>Financial Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2225</td>
<td>Basic Marketing Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor in Business Administration (for Non-Business Majors only)

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 receiving degrees in other colleges may satisfy the requirements for a minor in Business Administration by successfully completing the following courses (total 33 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2201</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3301</td>
<td>Introduction to Informatics and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3315</td>
<td>Corporate Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2216</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2217</td>
<td>Advanced Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3329</td>
<td>Operations and Production Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2225</td>
<td>Basic Marketing Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor in Marketing (for Non-Business Majors only)

Students receiving degrees in other colleges may satisfy the requirements for a Marketing minor by completing the following courses (total 18 credit hours):

**Required Courses**

- MKTG 2225 Basic Marketing Management
- MKTG 4427 Consumer Behavior

**Marketing Electives**

- Other Electives from student's major coursework related to Marketing 0-6
- Examples of courses which would qualify for a Sociology Major, for example, might be: 1
  - SOC 3335 Population and Environment
  - SOC 3366 The Community
The courses must be at 2000-level or higher. These electives must be approved prior to the completion of MKTG 2225 by the student's Marketing Advisor.

Post-Baccalaureate Certificate in Informatics

A 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.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1181</td>
<td>Informatics and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1181</td>
<td>Computer Science and Programming I</td>
<td></td>
</tr>
<tr>
<td>INFO 1182</td>
<td>Informatics and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1182</td>
<td>Computer Science and Programming II</td>
<td></td>
</tr>
<tr>
<td>INFO 2285</td>
<td>Software and Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3301</td>
<td>Introduction to Informatics and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3380</td>
<td>Networking and Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4407</td>
<td>Database Design and Implementation</td>
<td>3</td>
</tr>
</tbody>
</table>

Select ONE of the following emphases: 12

A) Business Informatics Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 4411</td>
<td>Intermediate Information Assurance</td>
<td></td>
</tr>
<tr>
<td>INFO 4482</td>
<td>Systems Development and Implementation Methodologies</td>
<td></td>
</tr>
</tbody>
</table>

Students must take six (6) hours of Business courses in any of the following areas:

- Accounting
- Economics
- Finance
- Management
- Marketing

OR

B) Health Informatics Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 3330</td>
<td>Health Informatics</td>
<td></td>
</tr>
<tr>
<td>INFO 4422</td>
<td>Health Information Assurance</td>
<td></td>
</tr>
</tbody>
</table>

Students must take two (2) courses from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 4424</td>
<td>Healthcare Workflow Process Analysis and Redesign</td>
<td></td>
</tr>
<tr>
<td>HCA 1115</td>
<td>US Health System</td>
<td></td>
</tr>
<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
<td></td>
</tr>
<tr>
<td>HCA 4489</td>
<td>Healthcare Information Systems Practicum</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 33

Students must complete at least three credits as upper division coursework (3000 or 4000-level) within their selected emphasis.

Students must receive a grade higher than a C- in all coursework that applies to the Post-Baccalaureate Certificate in Informatics.

Students must meet with an advisor and complete a Program of Study Agreement prior to the second semester of coursework.

Native American Business Administration Emphasis

This emphasis may be added to any of the majors offered in the College of Business.

Requirements:

1. Complete all degree and major requirements for a B.B.A. in a major within the College of Business.
2. Take the following two courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 4420</td>
<td>Native American Organizational Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4422</td>
<td>Native American Enterprise</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Plus 6 credits of program-approved electives.
Accounting

Faculty
Professors
Picard
K. Smith

Assistant Professors
Brown
Konicek
Lim
O’Brien-Rose

Emeriti
Boes
Plewa
Pumphrey
Reis
J. Smith

Accounting Program Learning Goals for Our Undergraduate Accounting Majors

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 Track 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, and a Master of Accountancy (MAcc).

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 and the MAcc program provides 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 or the Master of Accountancy (MAcc) Program.

Accounting Major Requirements

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3323</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3324</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3331</td>
<td>Principles of Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3341</td>
<td>Managerial and Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4425</td>
<td>Intermediate Accounting III</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4456</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4403</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4440</td>
<td>Accounting Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

or ACCT 3393  Accounting Internship
or ACCT 4493  Advanced Accounting Internship
or FIN 4451  Student Managed Investment Fund I
or FIN 4452  Student Managed Investment Fund II
or INFO 4488  Informatics Senior Project
or MGT/MKTG 4411 Small Business and Entrepreneurship Practicum

Complete one track as outlined below (each has underlying prerequisites; consult the course descriptions):

Operations

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 4434</td>
<td>Productivity and Quality</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Information Assurance

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 3310</td>
<td>Introduction to Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4411</td>
<td>Intermediate Information Assurance</td>
<td>3</td>
</tr>
</tbody>
</table>

Information Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4407</td>
<td>Database Design and Implementation</td>
<td>3</td>
</tr>
</tbody>
</table>

Finance

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 4405</td>
<td>Advanced Corporate Financial Management I</td>
<td>3</td>
</tr>
</tbody>
</table>

plus 1 other FIN 4000 level course

Total Hours 30

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed: three required courses and one elective. Management majors may use MGT 4434 and MGT 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3341</td>
<td>Managerial and Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4434</td>
<td>Productivity and Quality</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

One elective to be selected from the following courses: 3
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

**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 1143. 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 and MATH 1143. 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: 3 semester hours.**
Study of federal income taxation and its application to individual taxpayers and individual tax return preparations. Not open to accounting majors. D

**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: Accounting or Informatics major; INFO 3301. PREREQ or COREQ: ACCT 3323 and ACCT 3341. 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, businesses, 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 3332. 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 4461. 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 hour.
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 hour.
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
Economics

Faculty

Chair and Professor
Hackert

Professors
Benson
Hill
Stegner
Tokle

Emeritus Faculty
Hofman

Assistant Professor
Buder

Program Goals

The goal of the Department of Economics is to help students prepare for a career requiring a bachelor’s degree in economics and for graduate study. In order for a student to be successful in these pursuits, the following skills must be obtained:

1. Learn how economists interpret and apply economic data to understand and predict economic events.
2. Develop an ability to objectively and critically identify and analyze economic issues.
3. Acquire an understanding of the theory and technical analysis required for graduate study.

One way or another, economic forces affect every individual, and thus an understanding of economics helps individuals cope with and adapt to the rapidly changing global marketplace. Most issues discussed at local, domestic, and international centers have an economic component. As our society moves through the twenty-first century, issues such as the role and the size of the government, to what extent a nation’s borders remain open to the foreign sector, the trade-off between the quality of the environment and the quantity of production, and the distribution of a country’s income between labor and other resources will continue to dominate the national agenda. Indeed, the technological advances of the past century, which could have alleviated problems of scarcity and the need to make difficult decisions, seem only to have exacerbated the trade-offs nations face and the competing uses for the world’s limited resources.

While it is true that to be hired with the title of economist generally requires graduate study, there are ample employment opportunities for those who achieve a baccalaureate degree. An economics degree is an excellent background for careers in banking, real estate, litigation analysis, planning, government, bond trading, financial analysis, teaching and a host of other employment opportunities. An economics background is also excellent preparation for graduate study in economics, law, business and international relations.

The Economics Department offers programs leading to Bachelor of Arts and Bachelor of Science degrees. A student may choose an option in economic theory, applied economics, or law and economics.

Economic Theory

This option provides a broad-based background to the many specialties within the realm of economics. It provides a comprehensive overview to those who plan to pursue graduate study in Economics. It is also appropriate as a terminal degree for those who seek a diverse background in Economics.

Applied Economics

In the applied economics option, students major in economics while they select a personalized area of emphasis to support their interests and future career plans. Areas of emphasis are often selected from disciplines such as business, political science, sociology or international studies. Economic majors planning on entering into a health profession, such as medical, dental or veterinarian school, often select their area of emphasis from the sciences.

Law and Economics

Economics is widely viewed as a very good major for students planning on attending law school. This option provides a clearly specific path for those planning to pursue a career in the legal profession.

Bachelor of Arts or Bachelor of Science in Economics

The following courses are required in addition to completion of 8 of the 9 General Education Objectives (see the General Education Requirements (p. 47) described in the Academic Information section of this catalog). Recommended electives for economics majors are political science, finance, or mathematics depending upon the student’s specific interests.

Option 1— Economic Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>&amp; ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4474</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4485</td>
<td>Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 1170</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 2216</td>
<td>Business Statistics</td>
<td></td>
</tr>
</tbody>
</table>
| Plus 15 additional hours of upper-division courses in economics and 6 additional hours in advisor-approved courses.

Option 2— Applied Economics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>&amp; ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4474</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4485</td>
<td>Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 2216</td>
<td>Business Statistics</td>
<td></td>
</tr>
</tbody>
</table>

(Each course above partially satisfies General Education Objective 6)
(Any of the last 4 courses satisfies General Education Objective 3)
Students choosing this option must obtain a B.A. rather than a B.S. and must partially satisfy Objective 4 using PHIL 1103.

### Option 3—Law and Economics

Students choosing this option must obtain a B.A. rather than a B.S. and must partially satisfy Objective 4 using PHIL 1103.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>6</td>
</tr>
<tr>
<td>&amp; ECON 2202</td>
<td>and Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Each course above partially satisfies General Education Objective 6)</td>
<td></td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4474</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4482</td>
<td>Internship ¹</td>
<td>1-9</td>
</tr>
<tr>
<td>ECON 4485</td>
<td>Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4401</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2201</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 1170</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(Each of the last 3 courses satisfies General Education Objective 3)</td>
<td></td>
</tr>
<tr>
<td><strong>Plus 18 credits selected from the following:</strong></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>ANTH 4478</td>
<td>Federal Indian Laws</td>
<td></td>
</tr>
<tr>
<td>ANTH 4479</td>
<td>Tribal Governments</td>
<td></td>
</tr>
<tr>
<td>CMP 4410</td>
<td>Mass Media History, Law, and Ethics</td>
<td></td>
</tr>
<tr>
<td>ENGL 4410</td>
<td>Writing Internship (max 3 credits)</td>
<td></td>
</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td></td>
</tr>
<tr>
<td>MGT 4461</td>
<td>Business Law</td>
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</tr>
<tr>
<td>MGT 4480</td>
<td>Labor and Employment Law</td>
<td></td>
</tr>
<tr>
<td>PHIL 4450</td>
<td>Ethical Theory</td>
<td></td>
</tr>
<tr>
<td>POLS 4442</td>
<td>Constitutional Law</td>
<td></td>
</tr>
<tr>
<td>POLS 4443</td>
<td>Civil Rights and Liberties</td>
<td></td>
</tr>
<tr>
<td>POLS 4445</td>
<td>Jurisprudence</td>
<td></td>
</tr>
<tr>
<td>PSYC 4463</td>
<td>Clinical Psychology and the Law</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Each of the last 3 courses satisfies General Education Objective 3)</td>
<td></td>
</tr>
<tr>
<td><strong>Plus 12 additional hours of upper-division economics courses (excluding 12 additional ECON 4482 credits):</strong></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>6</td>
</tr>
<tr>
<td>&amp; ECON 2202</td>
<td>and Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Each course above partially satisfies General Education Objective 6)</td>
<td></td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Plus 9 additional upper-division economics credits, ¹</td>
<td>9</td>
</tr>
</tbody>
</table>

¹ Internship must be with a member of the legal profession.

### Economics Minor

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>6</td>
</tr>
<tr>
<td>&amp; ECON 2202</td>
<td>and Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Each course above partially satisfies General Education Objective 6)</td>
<td></td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Plus 9 additional upper-division economics credits, ¹</td>
<td>9</td>
</tr>
</tbody>
</table>

¹ All electives shall be selected by the student with prior approval from a Department of Economics faculty member.

### 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: 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 2201. S

**ECON 3303 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 2201. S

**ECON 3304 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 3399 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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 4447 Senior Seminar: 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 4481 Independent Studies: 1-3 semester hour.
Individuals will be assigned independent problems for research under the supervision of a departmental faculty member. May be repeated for up to 6 credits. F, S, Su

ECON 4482 Internship: 1-9 semester hour.
Directed student internship in economic organizations and business involving supervised work experience. The internship must be approved by the chair of the department. May be repeated for up to 9 credits. F, S, Su

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 MATH 1153. F

ECON 4491 Seminar: 1-3 semester hour.
F

ECON 4492 Seminar: 1-3 semester hour.
S

ECON 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

ECON 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Finance Major

Faculty

Chair and Professor
Hackert

Professors
Brookman
Byers
Khang

Emeriti
Longmore
Wells

Finance majors may earn a degree in Finance without emphasis or a degree in Finance with emphasis 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. Finance majors are encouraged to include additional courses in Finance, Economics, and Accounting as part of the 24 hour credit total.

Finance Major Requirements

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 4405</td>
<td>Advanced Corporate Financial Management I</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4478</td>
<td>Investments</td>
<td>3</td>
</tr>
<tr>
<td>6 Additional credit hours of upper-division FIN electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6 credit hours of upper-division College of Business courses</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6 credit hours of additional upper-division ISU courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 24

Of the 24 required hours, 3 credit hours must be applied educational credits from the following list:

- Any Department 4493 Advanced 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 4411/MKTG 4411 Small Business and Entrepreneurship Practicum

College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement. However, 3393 internships may be taken to meet the College of Business applied educational requirement.

Entrepreneurship/Small Business Emphasis

This emphasis may be added to a major in Finance, Management, or Marketing. Any College of Business course numbered 4491, Special Topics, may be applied to this emphasis when the topic relates to small business or entrepreneurship. Students should request prior approval to have a topics course used for the emphasis.

Courses used to meet the requirements for the Entrepreneurship/Small Business Emphasis may also be used to meet major requirements.

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed: three required courses and one elective. Management majors may use MGT 4434 and MGT 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3341</td>
<td>Managerial and Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4434</td>
<td>Productivity and Quality</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

One elective to be selected from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 4403</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4432</td>
<td>New Product Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4421</td>
<td>Services Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 12

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. PREREQ: ACCT 3303. 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: Completion of lower division requirements. F, S
FIN 3393 Finance Internship: 1-3 semester hour.
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 hour.
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 4493 Advanced Finance Internship: 3 semester hours.
Significant business experience coordinated by the faculty to provide broad
exposure to finance issues. Letter grade assigned. F, S

FIN 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits
are announced in the class schedule by the scheduling department. Experimental
courses may be offered no more than three times. May be repeated
General Business Major

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 Major Requirements

18 credit hours of upper-division College of Business courses chosen from at least two business disciplines

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 4482</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4434</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3341</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4440 Accounting Practicum</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4451 Student Managed Fund I</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4452 Student Managed Fund II</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4488 Informatics Senior Project</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4411/MKTG 4411 Small Business and Entrepreneur Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3341 Managerial and Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4434 Productivity and Quality</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482 Project Management</td>
<td>3</td>
</tr>
<tr>
<td>One elective to be selected from the following courses:</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4403 Accounting Information Systems</td>
<td></td>
</tr>
<tr>
<td>INFO 3307 Systems Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>MKTG 4432 New Product Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 4421 Services Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 24

Of the 24 required hours, 3 credit hours must be applied educational credits from the following list:

- Any Department 4493 Advanced 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 4411/MKTG 4411 Small Business and Entrepreneur Practicum

College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement. However, 3393 internships may be taken to meet the College of Business applied educational requirement.

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed: three required courses and one elective. Management majors may use MGT 4434 and MGT 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3341</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4434</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>3</td>
</tr>
</tbody>
</table>

One elective to be selected from the following courses: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 4403 Accounting Information Systems</td>
<td></td>
</tr>
<tr>
<td>INFO 3307 Systems Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>MKTG 4432 New Product Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 4421 Services Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 12

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

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

BA 4410 Implementing Professional Development III: 1 semester hour.
Professional Development Capstone for the senior student. Students will implement skills learned in the two previous Professional Development courses with the goal of finding a job within their desired profession. Graded S/U. PREREQ: BA 3310. F, S
Informatics and Computer Science

Faculty
Chair and Professor
Parker

Professors
Ottaway
C. Schou

Assistant Professors
Bozan
Holmes
Houghton
Kordzadeh
Srinivasan

Business Informatics
The Business Informatics major prepares students for a wide variety of careers, including systems analysis, software and web development, and computer operations. With a breadth of course offerings that include an emphasis on problem solving, communication, programming, process modeling, project management, and business, Business Informatics majors are valuable to employers both for their technical skills as well as their ability to solve organizational problems. All modern organizations rely on information technology to function, and Business Informatics majors are uniquely positioned to apply that technology to effectively support an organization’s operations.

Health Informatics
The Bachelor of Business Administration degree in Health Informatics is delivered in cooperation with Idaho State University's Kasiska School of Health Professions. The 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. The Health Informatics (HI) degree is intended to develop the skills necessary to manage information systems in a healthcare environment. Combining courses in healthcare administration, general business, and informatics, the HI 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.

Business Informatics Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1181</td>
<td>Informatics and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1182</td>
<td>Informatics and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2285</td>
<td>Software and Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3380</td>
<td>Networking and Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4407</td>
<td>Database Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4411</td>
<td>Intermediate Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4482</td>
<td>Systems Development and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4484</td>
<td>Secure Software Life Cycle Development</td>
<td>3</td>
</tr>
</tbody>
</table>

INFO 4488 Informatics Senior Project * 3
or INFO 4493 Advanced Informatics Internship 3
* Student's choice of INFO 4488 or INFO 4493 will meet the College of Business applied educational requirement.

Total Hours 30

College of Business 3393 internships and College of Business Core Courses do not count toward the 30 credit hour major course requirement. However, 3393 internships may be taken to meet the College of Business applied educational requirement.

Health Informatics Major Requirements

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1181</td>
<td>Informatics and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1182</td>
<td>Informatics and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2285</td>
<td>Software and Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3330</td>
<td>Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3380</td>
<td>Networking and Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4407</td>
<td>Database Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4422</td>
<td>Health Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4426</td>
<td>Health Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>HCA 1115</td>
<td>US Health System</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4489</td>
<td>Healthcare Information Systems Practicum *</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 39
* HCA 4489 also meets the College of Business applied educational requirement.

Minor in Informatics

Students receiving degrees in all colleges may satisfy the requirements for an Informatics minor by completing the following courses. Students must choose the Business Informatics option or the Health Informatics option. Students pursuing this minor should seek assignment of a minor advisor early in their program to complete a Program of Study Agreement.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1181</td>
<td>Informatics and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1182</td>
<td>Informatics and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3380</td>
<td>Networking and Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4407</td>
<td>Database Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4482</td>
<td>Systems Development and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4484</td>
<td>Secure Software Life Cycle Development</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4487</td>
<td>Intermediate Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4488</td>
<td>Systems Development and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4493</td>
<td>Advanced Informatics Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

Select ONE of the following options: 6

A) Business Informatics Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 2285</td>
<td>Software and Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>Plus one additional 4000-level Informatics course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Post-Baccalaureate Certificate in Informatics

A 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.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1110</td>
<td>Web Development: Essentials</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1120</td>
<td>Web Development: Client-Side Programming</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1181</td>
<td>Informatics and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1182</td>
<td>Informatics and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2285</td>
<td>Software and Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3301</td>
<td>Introduction to Informatics and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3380</td>
<td>Networking and Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4407</td>
<td>Database Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4411</td>
<td>Intermediate Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4482</td>
<td>Systems Development and Implementation Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4422</td>
<td>Health Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4424</td>
<td>Healthcare Workflow Process Analysis and Redesign</td>
<td>3</td>
</tr>
<tr>
<td>HCA 1115</td>
<td>US Health System</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4489</td>
<td>Healthcare Information Systems Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

Select ONE of the following emphases: 12

A) Business Informatics Emphasis

Students must take six (6) hours of Business courses in any of the following areas:

- Accounting
- Economics
- Finance
- Management
- Marketing

B) Health Informatics Emphasis

Students must take two (2) courses from the following list:

- INFO 4407 Database Design and Implementation
- INFO 4422 Health Information Assurance
- 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

Students must meet with an advisor and complete a Program of Study Agreement prior to the second semester of coursework.

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed: three required courses and one elective. Management majors may use MGT 4434 and MGT 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:

- ACCT 3341 Managerial and Cost Accounting
- MGT 4434 Productivity and Quality
- MGT 4482 Project Management

One elective to be selected from the following courses:

- ACCT 4403 Accounting Information Systems
- INFO 3307 Systems Analysis and Design
- MKTG 4432 New Product Management
- MKTG 4421 Services Marketing

Total Hours: 18

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 1120 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 1110 or permission of instructor. 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 or CS 1181. F,S
INFO 2285 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. PRE-or-COREQ: INFO 1181 or 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. PRE-or-COREQ: INFO 1100 or equivalent skills and knowledge. F, S

INFO 3307 Systems Analysis and Design: 3 semester hours.
Develops system 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. PRE-or-COREQ: INFO 1182 or CS 1182 or permission of instructor. 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. PREREQ: HCA 1115 and MGT 2216. D

INFO 3330 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 2285 or CS 2275. D

INFO 3393 Informatics Internship: 1-3 semester hour.
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. PRE-or-COREQ: INFO 3307. 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 2285 or CS 2275 or INFO 3310, or permission of instructor. D

INFO 4412 Systems Security for Senior Management: 1-3 semester hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 Assurance: 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 and INFO 3380. 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 3307. 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. 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. COREQ: INFO 3380, senior status, and permission of instructor. PREREQ: INFO 1182. 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: 3 semester hours.
Research and reports on problems or topics in business informatics. 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Management

Faculty
Chair and Professor
Murphy

Professors
Johnson
Krumwiede

Associate Professors
Street
Tocher

Assistant Professors
Bolinger
S. Schou
Peterson

Senior Lecturers
Peppers

Emeriti
Gantt
Johnson
Jolly
Kilpatrick
Pawar
Stratton

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.

Management Major Requirements:

MGT 4441 Organization Behavior 3
MGT 4473 Human Resource Management 3
6 additional credit hours of upper-division MGT electives 6
6 credit hours of upper-division College of Business courses 6
6 credit hours of additional upper-division ISU courses 6
Total Hours 24

Of the 24 required hours, 3 credit hours must be applied educational credits from the following list:

• Any Department 4493 Advanced 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 4411/MKTG 4411 Small Business and Entrepreneurship Practicum

College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement. However, 3393 internships may be taken to meet the College of Business applied educational requirement.

Human Resource Management Emphasis

An option in the Management major, the Human Resource Management emphasis provides students with an understanding of the issues faced by personnel administrators, industrial relations managers, and others involved in the management of employees. Students receive a B.B.A. in Management with Human Resources Management Emphasis.

MGT 4441 Organization Behavior 3
MGT 4473 Human Resource Management 3
MGT 4474 Advanced Human Resource Management 3
MGT 4480 Labor and Employment Law 3
And two of the following: 6

MGT 4434 Productivity and Quality
MGT 4461 Business Law
MGT 4462 Issues in Business and Society
MGT 4482 Project Management
Total Hours 18

Entrepreneurship/Small Business Emphasis

This emphasis may be added to a major in Finance, Management, or Marketing. Any College of Business course numbered 4491, Special Topics, may be applied to this emphasis when the topic relates to small business or entrepreneurship. Students should request prior approval to have a topics course used for the emphasis.

Courses used to meet the requirements for the Entrepreneurship/Small Business Emphasis may also be used to meet major requirements.

Requirements:

1. Complete all degree and major requirements for a B.B.A. with major in - Finance, Management, or Marketing.
2. Take the following TWO courses:

MGT 4410 Entrepreneurship 3
MGT 4411 Small Business and Entrepreneurship Practicum 3

And TWO of the following:

ACCT 3341 Managerial and Cost Accounting 3
ACCT 3360 Small Business Accounting 3
FIN 4464 Entrepreneurial Finance 3
MKTG 4432 New Product Management 3

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed: three required courses and one elective. Management majors may use MGT 4434 and MGT 4482 to satisfy major electives and the Operations Management Emphasis Requirements.
Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3341</td>
<td>Managerial and Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4434</td>
<td>Productivity and Quality</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

One elective to be selected from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 4403</td>
<td>Accounting Information Systems</td>
<td></td>
</tr>
<tr>
<td>INFO 3307</td>
<td>Systems Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>MKTG 4432</td>
<td>New Product Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 4421</td>
<td>Services Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 12

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 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. PRE-or-COREQ: MATH 1143. 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. PREREQ or COREQ: MATH 1143. 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 hour.**
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

**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: Completion of lower division requirements. F, S

**MGT 3393 Management Internship: 1-3 semester hour.**
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: 3 semester hours.**
Developing new business ideas, initiating a new enterprise, bringing new technology to the market; applying sound business practices involving management, marketing, accounting, finance and informatics to accommodate changing marketing opportunities. Equivalent to MKTG 4410. PREREQ: FIN 3315, MGT 3312, and 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 3329 and MGT 3312. D

**MGT 4441 Organization Behavior: 3 semester hours.**
Case study approach designed to encourage independent thought in the application of behavioral theories and concepts or organizational problems. Emphasis on integrating theoretical concepts with patterns of organizational direction, control, communications, and decision making. PREREQ: MGT 3312. F, S

**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 Problems in Policy and 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 CIS 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 3329 or permission of instructor. 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 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 hour.
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 4493 Advanced Management Internship: 3 semester hours.
Significant business experience coordinated by the faculty to provide broad exposure to management issues. Letter grade assigned. F, S

MGT 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Marketing

Faculty

Professor
Speck

Assistant Professors
McCardle
Northington
Ney

Professor Emeritus
Scott

Marketing majors earn a degree in Marketing which provides students with the opportunity to augment the required marketing coursework with courses in other 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.

Marketing Major Requirements:

MKTG 4427 Consumer Behavior 3
MKTG 4454 Advanced Marketing Management 3
6 additional credit hours of upper-division MKTG electives. 6
6 credit hours of upper-division College of Business courses 6
6 credit hours of additional upper-division ISU courses 6
Total Hours 24

Of the 24 required hours, 3 credit hours must be applied educational credits from the following list:

- Any Department 4493 Advanced 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 4411/MKTG 4411 Small Business and Entrepreneurship Practicum

College of Business 3393 internships and College of Business Core Courses do not count toward the 24 credit hour major course requirement. However, 3393 internships may be taken to meet the College of Business applied educational requirement.

Entrepreneurship/Small Business Emphasis

This emphasis may be added to a major in Finance, Management, or Marketing. Any College of Business course numbered 4491, Special Topics, may be applied to this emphasis when the topic relates to small business or entrepreneurship. Students should request prior approval to have a topics course used for the emphasis.

Courses used to meet the requirements for the Entrepreneurship/Small Business Emphasis may also be used to meet major requirements.

Requirements:

1. Complete all degree and major requirements for a B.B.A. with major in - Finance, Management, or Marketing.

2. Take the following TWO courses:

   MGT 4410 Entrepreneurship 3
   MGT 4411 Small Business and Entrepreneurship Practicum 3

And TWO of the following:

   ACCT 3341 Managerial and Cost Accounting 3
   ACCT 3360 Small Business Accounting 3
   FIN 4464 Entrepreneurial Finance 3
   MKTG 4432 New Product Management 3

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed: three required courses and one elective. Management majors may use MGT 4434 and MGT 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:

   ACCT 3341 Managerial and Cost Accounting 3
   MGT 4434 Productivity and Quality 3
   MGT 4482 Project Management 3

One elective to be selected from the following courses: 3

   ACCT 4403 Accounting Information Systems
   INFO 3307 Systems Analysis and Design
   MKTG 4432 New Product Management
   MKTG 4421 Services Marketing

Total Hours 12

Minor in Marketing (for Non-Business Majors only)

Students receiving degrees in other colleges may satisfy the requirements for a Marketing minor by completing the following courses (total 18 credit hours):

Required Courses 6

   MKTG 2225 Basic Marketing Management
   MKTG 4427 Consumer Behavior

Marketing Electives 6-12

Other Electives from student’s major coursework related to Marketing 0-6

Examples of courses which would qualify for a Sociology Major, for example, might be: 1

   SOC 3335 Population and Environment
   SOC 3366 The Community

1 The courses must be at 2000-level or higher. These electives must be approved prior to the completion of MKTG 2225 by the student’s Marketing Advisor.
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. F, S

MKTG 3393 Marketing Internship: 1-3 semester hour.
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. F, S

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: 3 semester hours.
Developing new business ideas, initiating a new enterprise, bringing new technology to the market; applying sound business practices involving management, marketing, accounting, finance and informatics to accommodate changing marketing opportunities. Equivalent to MGT 4410. PREREQ: FIN 3315, MGT 3312, AND 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. F

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. S

MKTG 4465 International Marketing: 3 semester hours.
Comparative marketing arrangements are examined. Covers factors which need to be recognized by international marketing managers in analyzing markets, covering foreign operations, and in assessing economic, cultural, and political aspects of international markets. PREREQ: MKTG 2225. D

MKTG 4480 Marketing on the Internet: 3 semester hours.
Understanding and using the Internet for marketing communications. Includes evaluating current sites, developing skills for authoring HTML pages, and developing an Internet marketing strategy and site for an organization. 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 hour.
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 4493 Advanced Marketing Internship: 3 semester hours.
Significant business experience coordinated by the faculty to provide broad exposure to marketing issues. Letter grade assigned. F, S

MKTG 4499 Experimental Course: 1-6 semester hour.
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
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.

The Department of Teaching and Educational Studies offers undergraduate and graduate degree programs in elementary education, secondary education, early childhood 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.

The Graduate Department of School Psychology and Educational Leadership offers graduate programs in school psychology and educational leadership, including both public school and higher education administration.

The Intermountain Center for Education Effectiveness (ICEE) collaborates with local school districts, education agencies, professional organizations, and policy makers throughout the Intermountain West, working within partnerships that enhance the delivery of quality education. The ICEE coordinates professional education programs and coursework, agency/school development, business and community partnerships, and research with its related services.

The Advising Center provides candidates with specific advising information relative to admission to teacher education programs, evaluation of transfer courses, submission of petitions, academic appeals, and certification recommendations. An education advisor is appointed for each candidate who applies for admission to Teacher Education in the College of Education. In addition to an education advisor in the Advising Center, the Advising Center directs each admitted candidate to obtain a second advisor in his or her major. For some majors, the education advisor may also serve as the advisor for the major.

The Office of Field Experiences administers the student-teaching internship component of clinical experiences including the placement of students, selection of cooperating teachers, and assignment of university supervisors. Copies of the Student Teaching Internship Handbook are available to teacher candidates in the Office of Field Experiences.

The Instructional Materials Center (IMC) serves as the state repository for instructional 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.

Regional Special Education Office
The Regional Special Education Consultants work to assist Idaho School Districts to provide high quality programs for students with disabilities. They work under the direction of the State Department of Education Division of Special Education and participate in statewide planning and coordination with the Division of Student Achievement and School Improvement to ensure that coordinated and consistent information, technical assistance, and professional development are shared with superintendents, special education directors, and district personnel throughout the state.

Undergraduate Degrees Offered in the College of Education

Undergraduate degrees offered within the College of Education are:

- Bachelor of Arts in Blended Early Childhood Education
- Bachelor of Arts or Bachelor of Science in Elementary Education
- Bachelor of Science in Workplace Training and Leadership
- Bachelor of Music Education (see also the Department of Music in the School of Performing Arts, College of Arts and Letters)

Declaration of Major/Program
The College of Education offers a variety of majors, minors, and emphasis areas. Some degree programs offer 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 majors and minors, or emphasis areas, 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. 47). 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 state wide articulation agreement should refer to the Transfer Credit Limitations in the Undergraduate Admission (p. 39) 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 before 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, Human Exceptionality (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
Many of the degree programs in the College of Education have been designed to meet the Idaho standards and requirements for initial certification of professional school personnel approved by the Idaho State Board of Education and the Idaho State Department of Education. The College of Education shares responsibility with the College of Arts and Letters, the College of Science and Engineering, and the Division of Health Sciences for teacher education programs. The colleges work in close cooperation through the Teacher Education Committee. 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 (also called regular route certification) are also available to qualified persons holding baccalaureate 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 College of Education Advising Center 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 teaching certificate as follows:

- Early Childhood Education/Early Childhood Special Education Blended Certificate (Birth-3)
- Standard Elementary Certificate (K-8)
- Standard Elementary Certificate (K-12 for Art, English as a New Language, Music, or Physical Education)
- Standard Secondary Certificate (6-12)
Standard Exceptional Child Certificate - Generalist (K-12)

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 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 have met the requirements for a Standard Elementary Certificate (K-8), a Standard Secondary Certificate (6-12), or a Standard Exceptional Child Certificate with the Generalist (K-12) endorsement.

Accreditations

The State of Idaho participates in a partnership agreement with the National Council for Accreditation of Teacher Education (NCATE). To be considered State Board of Education-approved, all educator preparation programs must meet NCATE accreditation standards and they must be reviewed and approved by the Idaho State Department of Education. The College of Education is fully accredited by NCATE 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.

Teacher Certification Only and Accelerated Certification

Persons who already hold a Bachelor of Arts or Bachelor of Science degree may seek teaching certification by completing a regular route 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) and they must meet the coursework and completion requirements for a standard teacher education program. An Accelerated Certification program (regular route) that starts in May of each calendar year and typically takes one year to complete is available for qualified candidates interested in a Standard Secondary Certificate (for further information, contact the Advising Center or the associate dean). 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. 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).

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. 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 Secondary Certificate are qualified for subject area endorsements matching their single-subject teaching major or their teaching major and minor fields that fulfill their degree requirements. To add endorsements, candidates can complete additional teaching majors or teaching minors prior to graduation or they can add endorsements to their existing Standard Secondary 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 Secondary Certificate.) Persons who already hold a Bachelor of Arts or Bachelor of Science degree and an existing Standard Secondary Certificate can be admitted to the university as non-degree seeking to pursue additional secondary education endorsements. This does not require admission to Teacher Education. However, persons seeking a different teaching certificate must be admitted to Teacher Education in the new certification program area or to an Alternative Route program.

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 CertifiedProfile. CertifiedProfile is a secure platform that allows you to order your background check online. For specific instructions, contact the College of Education Advising 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 College of Education Advising Center (http://ed.isu.edu/studentResources/undergrad_advising.shtml) or the College of Education Office of Field Experiences (http://ed.isu.edu/fieldExperiences/index.shtml).

Admission to Teacher Education

Candidates must make a formal application and complete an interview for admission to Teacher Education. The Teacher Education Committee approves the standards for admission. Application for admission and the scheduling of the admission interview are completed through forms available in the Advising Center of the College of Education following the completion of at least 26 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 admission 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 2.75 overall grade point average including all transfer credits or credits earned in a previous degree program.
2. A grade of “B” [3.0] or higher in at least two of the following areas with a grade of no lower than “C” [2.0] in any of the three areas:
   - ENGL 1101 (English Composition), ENGL 1101P (English Composition Plus), or ENGL 1102 (Critical Reading and Writing) (satisfies University General Education Objective 1) or College of Education-approved equivalent.
• COMM 1101 (Principles of Speech) (satisfies University General Education Objective 2) or College of Education-approved equivalent.
• MATH: Any of the following or College of Education-approved equivalent:

  **Elementary**
  a) MATH 1108 Intermediate Algebra  
  b) MATH 1143 College Algebra  
  c) MATH 2256 Structure of Arithmetic for Elementary School Teachers  
  d) MATH 2257 Structure of Geometry and Probability for Elementary School Teachers  
  (each of the last two courses satisfies University General Education Objective 3)

  **Secondary**
  a) MATH 1123 Mathematics in Modern Society  
  b) MATH 1127 The Language of Mathematics  
  c) MATH 1130 Finite Mathematics  
  d) MATH 1153 Introduction to Statistics  
  e) MATH 1160 Applied Calculus  
  f) MATH 1170 Calculus I  
  (each of the 6 courses above satisfies University General Education Objective 3)

3. A successful background check (see above in Background Checks and Fingerprinting).
4. A grade of “C” [2.0] or higher in EDUC 2201, Development and Individual Difference, (or CFS 2203, The Young Child, for Bachelor of Arts in Early Childhood Education candidates) or equivalent. Applicants for admission to a Bachelor of Arts or Bachelor of Science in Human Exceptionality must also complete SPED 3330 or SPED 3340 and earn a grade of at least C [2.0].
5. A grade of “C” [2.0] or higher in EDUC 2215, Preparing to Teach with Technology, or equivalent. Individuals can test out of the requirement by passing the IC3 Key Applications competency test offered through the College of Education Advising Center.
6. Presentation of minimum scores achieved on the Praxis I Academic Skills Assessments:
   - Reading = 172;
   - Writing = 174;
   - Mathematics = 169.
7. Submission of Professional Portfolio entry with rubric scores completed as course requirement for EDUC 2201 or CFS 2203(or College of Southern Idaho transfer equivalent).
8. A recommendation form completed by the EDU 2201 or CFS 2203 instructor (or College of Southern Idaho transfer equivalent).
9. Submission of signed affidavit indicating awareness of the Idaho Code pertaining to teacher certification requirements.
10. Successful completion of the Teacher Education Program Admission Interview.

**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 Teacher Education Committee 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 the Department of Educational Foundations 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 Code of Ethics for Idaho Professional Educators (https://www.sde.idaho.gov/site/psc/ethics.htm) (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 candidates in Teacher Education. This is a professional development experience during which the intern works in a school context with students. It provides an opportunity for the intern to assume major responsibility for the full range of teaching in an approved school situation under the guidance of qualified personnel from Idaho State University and the cooperating schools.

The internship is scheduled for a full semester. Candidates should not plan to enroll in any additional coursework during the internship semester. No candidate is permitted to enroll in a correspondence or regularly scheduled course during the semester in which s/he is completing the internship without written permission from the coordinator of the Office of Field Experiences. All programs other than Music Education require 14 credits of internship. An internship may consist of two blocks of 7 credits or a single block of 14 credits. The Music Education program requires 7 credits or 14 credits to be determined in consultation with the Music Department. Candidates pursuing dual certifications may complete separate blocks of 7 credits in each required internship area.

Teacher candidates must file an application for a student teaching internship with the Office of Field Experiences by October 20 for fall semester of the following year, and by April 20 for spring semester of the following year. There is a $50 application fee due with the application, a $50 charge for late applications due with the application, and a $50 charge for out of area placements, due at the Assignment Information Meeting. Out of area is defined as any placement not in Regions IV, V, or VI. Effective Fall 2012, candidates requesting out of area placements will need to pay the $50 fee, and the difference in what university supervisors and cooperating teachers are paid in the out of area placement. Applications for all teaching internships may be obtained from the Office of Field Experience or from the website (http://ed.isu.edu/fieldExperiences/index.shtml). The application must be signed by the candidate’s advisor(s) and approved by the coordinator of the Office of Field Experiences.

The candidate must meet the following criteria for enrollment in a student teaching internship (EDUC 4492, EDUC 4494, EDUC 4495, EDUC 4496, BED 4496, CFS 4493, PE 4495 or SPED 4495):
1. Admission to a 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 2.75 grade point average overall including all transfer credits or credits earned in a previous degree program.
5. A 2.75 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 2.5 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. A grade point average of 3.0 in all Required Special Education Courses for the Bachelor of Arts or Bachelor of Science in Human Exceptionality and no more than one grade of C [2.0] or lower.
7. A 2.50 grade point average in the teaching major and minor (secondary) or emphasis area (elementary) including all transfer credits or credits earned in a previous degree program.
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 College of Education Advising Center and the College of Education dean’s office.
10. For Elementary Education, Human Exceptionality (Special Education), and Early Childhood Education candidates, applicants must demonstrate successful completion of at least two of the three standards tests of the Idaho Comprehensive Literacy Assessment [the qualifying scores for all three tests must be met prior to graduation]. Qualifying scores for the ICLA are available in the College of Education Advising 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 Elementary Certificate, the Standard Secondary Certificate, the Standard Exceptional Child Certificate, the Administrator Certificate, or the Pupil Personnel Services Certificate are available in the College of Education Office of Field Experience or on-line from the College of Education (http://ed.isu.edu/index.shtml) website. Candidates who desire to pursue professional educator certification in a state other than Idaho are advised to consult with the Office of Field Experience regarding procedures and reciprocity agreements with other states.

Program completers must initiate the certification process by submitting a completed application for certification to the College of Education Office of Field Experience. For Idaho certification, the application must be accompanied by a check or money order for the required credential application fee payable to the Idaho Department of Education. All applicants must include verification of Praxis II qualifying scores. In addition, official copies of all transcripts must be submitted to the Office of Field Experience for forwarding to the Idaho Department of Education.

The associate dean 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. 60) 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 from the College of Education (http://ed.isu.edu/index.shtml) website and the Advising Center. For petitions involving Teacher Education requirements, an Education Advisor from the Advising 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.

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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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 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 or COREQ: EDUC 3301. PREREQ: EDUC 2201, EDUC 2204, and admission to Teacher Education Program. F, S, Su

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 3301, 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, spreadsheets, databases, communication, and presentation software. PREREQ: EDUC 2215 or equivalent and admission to Teacher Education Program. 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. 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 admission to Teacher Education Program. F, S

EDUC 3331 Elementary Science Methods: 3 semester hours.
Study of the subject matter of elementary science programs. Emphasis on teaching methods and materials. Field experience required. PREREQ: General Education Objective 5, and admission to Teacher Education Program. 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: Admission to Teacher Education Program. F, S

EDUC 3340 Methodology and Diagnosis in ECE: 1-5 semester hour.
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 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. AF

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: EDUC 4460 or permission of instructor. AS

EDUC 4464 ESL Practicum: 1 semester hour.
Field experience in settings with English-as-a-second-language learners. COREQ: EDUC 4465 or permission of instructor. AS

EDUC 4470 Advanced Mathematics Methods: 3 semester hours.
Study of methods for teaching mathematics through the modern math approach stressing manipulations. Consideration is given to diagnostic and remedial procedures for exceptional children. 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 hour.
Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4482 Contemporary Issues in Education: 1-3 semester hour.
Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4483 Instructional Improvement for Teachers: 1-3 semester hour.
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 hour.
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 4491 Seminar: 1-3 semester hour.
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: 7-14 semester hour.
Candidates assume instructional and management responsibilities in a supervised secondary school music setting. Includes weekly professional development seminar. May be repeated. 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: 7-14 semester hour.
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 hour.
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: 7-14 semester hour.
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 4497 Professional Education Development: 1-3 semester hour.
A course for the practicing educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. May be repeated. A maximum of 10 credits may be applied to fifth year programs. Graded S/U. D

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Business Education Program

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.

The Business Education program offers a minor, major and single-subject major in Business Education. The program meets the standards for the Business Technology Education standard certification for the State Department of Education in secondary education (grades 6-12). Additionally the program includes coursework leading to occupational certification by the Idaho Division of Professional-Technical Education.

The graduate would be qualified to teach all business education courses such as - accounting, clerical procedures, computer technology and keyboarding. Also available through this program is an endorsement in Consumer Economics that qualifies graduates to teach senior high Consumer Economics and Economics.

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 Majors and Minors (p. 199) section and in the Secondary Single Subject Teaching Majors.

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 CTSO 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. PREREQ: BED 3341. F, S

**BED 3396 Work Experience in Business Occupations: 1-2 semester hour.**
Credits awarded for work experience as verified by written/performance evaluation. Graded S/U. D

**BED 4405 Independent Study in Business Education: 1-3 semester hour.**
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 hour.**
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
Teaching and Educational Studies

Faculty
Chair and Associate Professor
Mark Neill

Professors
Beverly Ray
Matt Sanger
David Squires

Associate Professors
Cory Bennett
David Mercaldo

Assistant Professors
Esther Ntuli
Justin Thorpe

Clinical Assistant Professors
Suzanne Beasterfield
Amanda Eller
Shu Yuan Lin

Clinical Associate Lecturer
Joanne Toevs

Clinical Assistant Lecturers
Danielle Collins
Michelle Schroeder

Emeriti
Bliss
Coffland
Lerch
Luckey
Marcum
Jack Newsome
Julie Newsome
Associate Professor
Pehrsson
Peña
Rankin
Sagness
Salzman
Spadafore

The Department of Teaching and Educational Studies is comprised of the following program areas:

- Bachelor of Arts in Early Childhood Education (p. 192)/Early Childhood Special Education Blended
- Bachelor of Arts or Bachelor of Science in Elementary Education (p. 199)
- Bachelor of Arts or Bachelor of Science in Secondary Education (p. 199)
- Bachelor of Arts or Bachelor of Science in Special Education (p. 213)

BA in Blended Early Childhood Education (p. 192)

BA/BS in Elementary Education (p. 196) with Concentrations in:
- Biology
- English
- Earth Science
- History
- Mathematics
- Special Education

BA/BS in Secondary Education (p. 199) with Concentrations in:
- Biological Sciences
- Business Education
- Chemistry
- Communication and Rhetorical Studies
- Consumer Economics
- Economics
- English
- English as a Second Language
- Family and Consumer Sciences
- French
- Geology
- German
- Health Education
- History
- Mass Communication
- Mathematics
- Physical Education
- Physics
- Political Science
- Psychology
- Russian
- Social Studies
- Sociology
- Spanish
- Theatre

BA/BS in Secondary Education (p. 199) with Single Subject Majors in:
- Art
- Biological Sciences
- Business Education
- Chemistry
- Communication and Rhetorical Studies
- English
- Family and Consumer Sciences
- Geology
- Health Education
- Mathematics
- Physical Education
- Theatre

BA/BS in Special Education (p. 213)

Bachelor of Music Education (p. 212)

BS in Family and Consumer Sciences (p. 192)
Child and Family Studies Program

The Child and Family Studies program includes several undergraduate options:

- Bachelor of Arts in Blended Early Childhood Education
- Bachelor of Science in Secondary Education with a major in Family and Consumer Sciences Education
- Bachelor of Science in General Family and Consumer Sciences (a non-teaching major)
- Minor in Consumer Economics
- Minor in Family and Consumer Sciences

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), Child and Family Studies (CFS), and/or related areas of study. Candidates interested in pursuing a degree in the area of Child and Family Studies should contact the Department of Educational Foundations for additional information.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 1100</td>
<td>Child and Family Studies Professions</td>
<td>1</td>
</tr>
<tr>
<td>CFS 2209</td>
<td>Early Childhood Environments</td>
<td>3</td>
</tr>
<tr>
<td>CFS 2229</td>
<td>Textile Products</td>
<td>3</td>
</tr>
<tr>
<td>CFS 3314</td>
<td>Interior Design and Housing</td>
<td>3</td>
</tr>
<tr>
<td>CFS 3332</td>
<td>Programs in Family and Consumer Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 4429</td>
<td>Social and Psychological Aspects of Clothing</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4431</td>
<td>Family Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4435</td>
<td>Relationships within Families</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4470</td>
<td>Consumer Economics</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2201</td>
<td>Development and Individual Differences</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2204</td>
<td>Families Community Culture</td>
<td>3</td>
</tr>
<tr>
<td>NTD 1104</td>
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<td>3</td>
</tr>
<tr>
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<td>Consumer Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NTD 2204</td>
<td>Meal Management</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours: 39

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.

Secondary Single Subject Major in Family and Consumer Sciences Education

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. 199) coursework. Candidates must also have accumulated two (2) years (4,000 clock hours) of related work experience or 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.

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<td>Development and Individual Differences</td>
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Total Hours: 39

Recommended Electives

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Summary of Requirements for a Bachelor of Science Degree in Secondary Education with a Major in Family and Consumer Sciences Education

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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.
Family and Consumer Sciences Education

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CFS 1100</td>
<td>Child and Family Studies Professions</td>
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<tr>
<td>CFS 2209</td>
<td>Early Childhood Environments</td>
<td>3</td>
</tr>
<tr>
<td>CFS 2229</td>
<td>Textile Products</td>
<td>3</td>
</tr>
<tr>
<td>CFS 3314</td>
<td>Interior Design and Housing</td>
<td>3</td>
</tr>
<tr>
<td>CFS 3332</td>
<td>Programs in Family and Consumer Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4429</td>
<td>Social and Psychological Aspects of Clothing</td>
<td>3</td>
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<tr>
<td>OLP 4401</td>
<td>Foundations of Human Resource Development</td>
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Recommended Electives

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<tbody>
<tr>
<td>CFS 4471</td>
<td>Advanced Consumers Economics</td>
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<tr>
<td>CFS 4472</td>
<td>Teaching Consumer Economics</td>
<td>1-3</td>
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<tr>
<td>CFS 4494</td>
<td>Partnerships with Professionals</td>
<td>3,6</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NTD 3312</td>
<td>Quantity Foods</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 3312L</td>
<td>and Quantity Foods Laboratory</td>
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<tr>
<td>NTD 3360</td>
<td>Nutrition Through the Lifecycle</td>
<td>3</td>
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<tr>
<td>NTD 4439</td>
<td>Sports Nutrition</td>
<td>3</td>
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<tr>
<td>OLP 4402</td>
<td>Occupational Analysis and Course Construction</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4403</td>
<td>Methods of Training</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4405</td>
<td>Learning Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4409</td>
<td>Professional Readings and Writing in Human Resource Development</td>
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<tr>
<td>OLP 4444</td>
<td>Ethics and Diversity in the Workplace</td>
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</table>

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:

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<tbody>
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<td>CFS 4431</td>
<td>Family Resource Management</td>
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</tr>
<tr>
<td>CFS 4470</td>
<td>Consumer Economics</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4471</td>
<td>Advanced Consumers Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
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</table>

Select TWO of the following:

- ACCT 2201 Principles of Accounting I
- ACCT 2202 Principles of Accounting II
- CFS 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

Minor in Family and Consumer Sciences

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<tr>
<td>CFS 3314</td>
<td>Interior Design and Housing</td>
<td>3</td>
</tr>
<tr>
<td>CFS 3332</td>
<td>Programs in Family and Consumer Sciences</td>
<td>3</td>
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<tr>
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Select ONE course from the following:

- CFS 2209 Early Childhood Environments
- CFS 2229 Textile Products
- CFS 4455 Relationships within Families
- CFS 4470 Consumer Economics
- NTD 2204 Meal Management
- NTD 2239 Nutrition

This is a non-certification program; please consult an advisor.

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.

Bachelor of Arts in Blended Early Childhood Education

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:

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<tbody>
<tr>
<td>EDUC 2204</td>
<td>Families Community Culture (or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2215</td>
<td>Using Technology in a Digital World (or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3302</td>
<td>Motivation and Management</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3309</td>
<td>Instructional Planning Delivery and Assessment</td>
<td>6</td>
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<tr>
<td>EDUC 3311</td>
<td>Instructional Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3321</td>
<td>Integrated Language Arts Methods</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3322</td>
<td>Literature for Children across the Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3330</td>
<td>Elementary Math Methods</td>
<td>3</td>
</tr>
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<td>EDUC 3331</td>
<td>Elementary Science Methods</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 4419</td>
<td>Developmental Literacy</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2256</td>
<td>Structure of Arithmetic for Elementary School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2257</td>
<td>Structure of Geometry and Probability for Elementary School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4493</td>
<td>Early Childhood Education: Student Teaching Internship</td>
<td>7-14</td>
</tr>
<tr>
<td>SPED 4424</td>
<td>Assessment Procedures in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4429</td>
<td>Strategies:Severe Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4432</td>
<td>Direct Instruction Systems</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4435</td>
<td>Practicum in Small Group Instruction</td>
<td>3</td>
</tr>
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<td>SPED 4438</td>
<td>Policies and Procedures in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4443</td>
<td>Autism</td>
<td>3</td>
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Courses

CFS 1100 Child and Family Studies 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

CFS 1109 Introduction to Early Childhood Professions: 2 semester hours.
Foundations and professional careers in early childhood education and early childhood special education. S

CFS 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

CFS 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

CFS 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: CFS 2203 or permission of instructor

CFS 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

CFS 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

CFS 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

CFS 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

CFS 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

CFS 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: CFS 2209 and admission to Teacher Education Program or permission of instructor. COREQ: CFS 4435. F

CFS 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: CFS 3373 or permission of instructor. S

CFS 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: CFS 3374 or permission of instructor. S

CFS 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

CFS 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
CFS 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: CFS 3373 or permission of instructor. F

CFS 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: CFS 4411 or permission of instructor. S

CFS 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

CFS 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: CFS 4470 or permission of instructor. ES

CFS 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

CFS 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: CFS 3373 or permission of instructor. S

CFS 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

CFS 4471 Advanced Consumers 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: CFS 4470 or permission of instructor. S

CFS 4472 Teaching Consumer Economics: 1-3 semester hour.
Designed to provide educators with current content and resources for developing consumer and economic education curriculum. Teaching techniques discussed and practiced. PREREQ: CFS 4471 or permission of instructor. D

CFS 4481 Special Problems in Child and Family Studies: 1-3 semester hour.
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

CFS 4490 Field Experience in Child and Family Studies: 1-3 semester hour.
Candidates participate in a variety of settings including schools, agencies, businesses, and child care settings. PREREQ: Permission of instructor. F, S

CFS 4493 Early Childhood Education: Student Teaching Internship: 7-14 semester hour.
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

CFS 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
Elementary Education

The emerging elementary education professional is expected to:

1. Select General Education Objective (p. 47) 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 depth 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, delivery, technology classroom integration and assessment.
4. Participate in diverse early and extended field experiences, where their actual lesson planning, 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. 47) 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
   c. one Emphasis Area (English, Mathematics, Science, or History) 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).

- EDUC 2201 Development and Individual Differences 3
- EDUC 2204 Families Community Culture 3
- EDUC 2215 Using Technology in a Digital World 3
- EDUC 3301 Inquiring Thinking Knowing 3
- EDUC 3302 Motivation and Management 3
- EDUC 3309 Instructional Planning Delivery and Assessment 6
- EDUC 3311 Instructional Technology 3
- SPED 3350 Creating Inclusive Classrooms 3
- EDUC 4494 Elementary Education Student Teaching Internship 7-14

Elementary Education Required Courses

- EDUC 2225 Introduction to Elementary Art Methods and Materials 1
- EDUC 3321 Integrated Language Arts Methods 3
- EDUC 3322 Literature for Children across the Curriculum 3
- EDUC 3330 Elementary Math Methods 3
- EDUC 3331 Elementary Science Methods 3
- EDUC 3336 Social Science Methods 3
- EDUC 4419 Developmental Literacy 3
- HE 2211 Health Education Methods Elementary 1
- HIST 4423 Idaho History 3
- or
- GEOL/HIST/POLS 4471 Historical Geography of Idaho
- MATH 2256 Structure of Arithmetic for Elementary School Teachers 3
- MATH 2257 Structure of Geometry and Probability for Elementary School Teachers 3
- MUSC 2233 Music Methods for Elementary Teachers 2
- PE 3357 Methods of Teaching Elementary Physical Education 3

Requirements for Elementary Education Standard Certification Only

1. Completion of the Professional Education Core:

- EDUC 2201 Development and Individual Differences 3
- EDUC 2204 Families Community Culture 3
- EDUC 2215 Using Technology in a Digital World 3
- EDUC 3301 Inquiring Thinking Knowing 3
- EDUC 3302 Motivation and Management 3
- EDUC 3309 Instructional Planning Delivery and Assessment 6
- EDUC 3311 Instructional Technology 3
- SPED 3350 Creating Inclusive Classrooms 3
- EDUC 4494 Elementary Education Student Teaching Internship 7-14

2. Completion of the Elementary Education Professional Courses:

- EDUC 2225 Introduction to Elementary Art Methods and Materials 1
- EDUC 3321 Integrated Language Arts Methods 3
- EDUC 3322 Literature for Children across the Curriculum 3
- EDUC 3330 Elementary Math Methods 3
- EDUC 3331 Elementary Science Methods 3
- EDUC 3336 Social Science Methods 3
- EDUC 4419 Developmental Literacy 3
- HE 2211 Health Education Methods Elementary 1
- MATH 2256 Structure of Arithmetic for Elementary School Teachers 3
- MATH 2257 Structure of Geometry and Probability for Elementary School Teachers 3
- MUSC 2233 Music Methods for Elementary Teachers 2
- PE 3357 Methods of Teaching Elementary Physical Education 3

Elementary Emphasis Areas

Biology (minimum of 20 credits)

Required Courses:

- 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
- Approved BIOL plant biology electives 3-4
- Approved BIOL animal biology electives 3-4
- BIOL 4413 Biology Teaching Methods 3
Strongly Recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2206</td>
<td>Cell Biology</td>
</tr>
<tr>
<td>&amp; BIOL 2207</td>
<td>and Cell Biology Laboratory</td>
</tr>
</tbody>
</table>

1 CHEM 1111, CHEM 1111L. General Chemistry I and Lab, 5 credits, is a prerequisite for BIOL 2206, BIOL 2207.

**Earth Sciences (minimum of 21 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth</td>
</tr>
<tr>
<td>&amp; GEOL 1100L</td>
<td>and The Dynamic Earth Lab</td>
</tr>
</tbody>
</table>

OR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1101</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>&amp; GEOL 1101L</td>
<td>and Physical Geology Lab</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Laboratory</td>
</tr>
<tr>
<td>GEOL 2202</td>
<td>Historical Geology</td>
</tr>
<tr>
<td>GEOL 2210</td>
<td>Earth in Space and Time</td>
</tr>
<tr>
<td>GEOL 3315</td>
<td>Evolution of the Earth's Surface</td>
</tr>
<tr>
<td>GEOL 4400</td>
<td>Practicum in Geology Teaching</td>
</tr>
<tr>
<td>GEOL 4410</td>
<td>Science in American Society</td>
</tr>
<tr>
<td>GEOL/HIST/POLS 4471</td>
<td>Historical Geography of Idaho</td>
</tr>
</tbody>
</table>

**English (minimum of 21 credits)**

**Linguistics/Grammar: three (3) semester credit hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2280</td>
<td>Grammar and Usage</td>
</tr>
<tr>
<td>or ENGL 2281</td>
<td>Introduction to Language Studies</td>
</tr>
</tbody>
</table>

**American Literature: three (3) semester credit hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2277</td>
<td>Survey of American Literature I Beginnings to 1860</td>
</tr>
<tr>
<td>or ENGL 2278</td>
<td>Survey of American Literature II 1860 to Present</td>
</tr>
</tbody>
</table>

**English Literature: three (3) semester credit hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2267</td>
<td>Survey of British Literature I Beginnings through 18th Century</td>
</tr>
<tr>
<td>or ENGL 2268</td>
<td>Survey of British Literature II 19th Century to Present</td>
</tr>
</tbody>
</table>

**Advanced Composition: six (6) semester credit hours, EXCLUDING the introductory sequence**

**TWO of the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2206</td>
<td>Creative Writing Workshop</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
</tr>
<tr>
<td>ENGL 3308</td>
<td>Business Communications</td>
</tr>
<tr>
<td>ENGL 4401</td>
<td>Advanced Composition</td>
</tr>
<tr>
<td>ENGL 4406</td>
<td>Advanced Creative Writing Workshop</td>
</tr>
</tbody>
</table>

**Coursework in writing methods for teachers of secondary students**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 4433</td>
<td>Methods Teaching English</td>
</tr>
</tbody>
</table>

The remaining credit hours must be completed using an Upper-Division ENGL elective.

**History (minimum of 21 credits)**

**Category I – World Regions (6 credits, at least 3 of which must be HIST 1101 or HIST 1102)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
</tr>
<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
</tr>
<tr>
<td>HIST 2254</td>
<td>Middle Eastern Civilization</td>
</tr>
<tr>
<td>HIST 2255</td>
<td>African History and Culture</td>
</tr>
</tbody>
</table>

**Category III – Courses for Teachers**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4418</td>
<td>United States History for Teachers</td>
</tr>
</tbody>
</table>

**Plus ONE of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3307</td>
<td>Early North America</td>
</tr>
<tr>
<td>HIST 3308</td>
<td>Industrialization and Reform in the United States</td>
</tr>
<tr>
<td>HIST 3309</td>
<td>Modern United States</td>
</tr>
</tbody>
</table>

**Category IV – Upper Division U.S. History**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4423</td>
<td>Idaho History</td>
</tr>
</tbody>
</table>

**History Electives – 6 credits from Categories V and VI**

Select TWO courses from the lists of upper division History elective courses in Categories V and VI in the Bachelor of Arts in History listing in the Arts and Letters section of this catalog.

**Mathematics (minimum of 20 credits)**

**ALL of the following five (5) courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1144</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 3343</td>
<td>Modern Geometry I</td>
</tr>
</tbody>
</table>

**Plus TWO of the following five (5) courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1127</td>
<td>The Language of Mathematics</td>
</tr>
<tr>
<td>MATH 1130</td>
<td>Finite Mathematics</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 1187</td>
<td>Applied Discrete Structures</td>
</tr>
</tbody>
</table>

1 Candidates must take MATH 2240 and MATH 2287 as prerequisites for MATH 3343.

**Special Education (30 credits)**

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 3330</td>
<td>The Exceptional Child</td>
</tr>
<tr>
<td>SPED 3340</td>
<td>Principles of Behavior Management</td>
</tr>
<tr>
<td>SPED 4423</td>
<td>Designing Instruction</td>
</tr>
<tr>
<td>SPED 4424</td>
<td>Assessment Procedures in Special Education</td>
</tr>
<tr>
<td>SPED 4429</td>
<td>Strategies: Severe Disabilities</td>
</tr>
<tr>
<td>SPED 4432</td>
<td>Direct Instruction Systems</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>SPED 4434</td>
<td>Language and Communication Methods in Special Education</td>
</tr>
<tr>
<td>SPED 4438</td>
<td>Policies and Procedures in Special Education</td>
</tr>
<tr>
<td>SPED 4443</td>
<td>Autism</td>
</tr>
<tr>
<td>SPED 4446</td>
<td>Secondary Special Education</td>
</tr>
</tbody>
</table>

**Practicum/Student Teaching Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 4430</td>
<td>Practicum in Individualized Instruction</td>
<td>1-3</td>
</tr>
<tr>
<td>SPED 4435</td>
<td>Practicum in Small Group Instruction</td>
<td>1-3</td>
</tr>
<tr>
<td>SPED 4495</td>
<td>Special Education:Student Teaching Internship</td>
<td>7-14</td>
</tr>
</tbody>
</table>
Secondary Education

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. 47) and Applying to Graduate (p. 64) in the Academic Information section of this catalog).
2. Completion of a subject teaching major 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 minor 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 major 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.

EDUC 2201 Development and Individual Differences 3
EDUC 2204 Families Community Culture 3
EDUC 2215 Using Technology in a Digital World 3
EDUC 3301 Inquiring Thinking Knowing 3
EDUC 3302 Motivation and Management 3
EDUC 3309 Instructional Planning Delivery and Assessment 6
EDUC 3311 Instructional Technology 3
SPED 3350 Creating Inclusive Classrooms 3
EDUC 4496 Secondary Education Student Teaching Internship 7-14

Required Secondary Education Course

EDUC 4401 Content Area Literacy 3

Requirements for Secondary Education Certification Only

1. Completion of a subject teaching major of at least 30 semester credit hours, as recommended by the subject department and approved by the College of Education, and a subject teaching minor 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 major 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:

EDUC 2201 Development and Individual Differences 3
EDUC 2204 Families Community Culture 3
EDUC 3301 Inquiring Thinking Knowing 3
EDUC 3302 Motivation and Management 3
EDUC 3309 Instructional Planning Delivery and Assessment 6
EDUC 3311 Instructional Technology 3
SPED 3350 Creating Inclusive Classrooms 3
EDUC 4496 Secondary Education Student Teaching Internship 7-14

3. Completion of Secondary Education Required Course:

EDUC 4401 Content Area Literacy 3

Secondary Education Teaching Majors and Minors

Biological Sciences Major

MATH 1160 Applied Calculus 3
or MATH 1153 Introduction to Statistics 3
BIOL 1101 Biology I 4
& 1101L and Biology I Lab 4
& 1102 & 1102L Biology II and Biology II Lab 4
BIOL 2206 Cell Biology 4
& BIOL 2207 and Cell Biology Laboratory 1
& BIOL 2209 General Ecology 4
& 2209L and General Ecology Laboratory 4
BIOL 3358 Genetics 3
BIOL 4413 Biology Teaching Methods 3
BIOL 4417 Organic Evolution 3
Approved Plant Biology elective 2 3-4
Approved Animal Biology elective 2 3-4

1 BIOL 2206, BIOL 2207 have a prereq of CHEM 1112, CHEM 1112L General Chemistry II, and Lab, 4 credits.
2 Approved electives are listed in the Biological Sciences section of the College of Science and Engineering.
Biological Sciences Minor

MATH 1160 Applied Calculus 3
or MATH 1153 Introduction to Statistics 3
BIOL 1101 Biology I 4
& 1101L Biology I Lab 4
BIOL 1102 Biology II 4
& 1102L Biology II Lab 4
BIOL 2206 Cell Biology 4
& BIOL 2207 Cell Biology Laboratory 1 4
BIOL 4413 Biology Teaching Methods 3

Approved upper division Biology Elective 2 3-4

1 BIOL 2206, BIOL 2207 have a prereq of CHEM 1112, CHEM 1112L General Chemistry II, and Lab, 4 credits.
2 Approved electives are listed in the Biological Sciences section of the College of Science and Engineering

Business Education Major

Select one of the following: 3

ACCT 2201 Principles of Accounting I
ACCT 3303 Accounting Concepts
BT 0120 Concepts of Accounting 1
BT 0147 Accounting Applications 1
BT 0148 Payroll Procedures 1
BT 0171 Computerized Accounting 1
BED 3332 Methods in Business Education 3
OLP 4401 Foundations of Human Resource Development 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
ENGL 3308 Business Communications 3
BT 0144 Document Processing 1 3

Select one of the following: 3

ECON 2201 Principles of Macroeconomics
ECON 2202 Principles of Microeconomics
CFS 4470 Consumer Economics

Select 9 credits from recommended and approved courses. 9

Total Hours 30

Recommended and Approved Courses:

ACCT 2202 Principles of Accounting II 3
BA 1110 The World of Business 3
BED 4485 Independent Study in Business Education 1-3
CFS 4470 Consumer Economics 3
CMP 2202 Photo, Graphic, and Video Editing 3
CMP 2231 Introduction to Graphic Design 3
CMP 2261 Introduction to Advertising 3
CMP 3335 Typography and Layout 3
COUN 1150 Career and Life Planning 1

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
FIN 1115 Personal Finance 3
FIN 3303 Financial Concepts 3
INFO 1110 Web Development: Essentials 3
INFO 1120 Web Development: Client-Side Programming 3
INFO 3301 Introduction to Informatics and Analytics 3
INFO 4440 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
OLP 4402 Occupational Analysis and Course Construction 3
OLP 4403 Methods of Training 3

1 Note that only 8 BT credits can be applied toward your degree.

Business Education Minor

Select one of the following: 3

ACCT 2201 Principles of Accounting I
ACCT 3303 Accounting Concepts
BT 0120 Concepts of Accounting 1
BT 0147 Accounting Applications 1
BT 0148 Payroll Procedures 1
BT 0171 Computerized Accounting 1
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
ENGL 3308 Business Communications 3
BT 0144 Document Processing 1 3
OLP 4401 Foundations of Human Resource Development 3

Select one of the following: 3

ECON 2201 Principles of Macroeconomics
ECON 2202 Principles of Microeconomics
CFS 4470 Consumer Economics

Total Hours 21

1 Note that only 8 BT credits can be applied toward your degree.

Chemistry Major

CHEM 1111 General Chemistry I 5
& CHEM 1111L General Chemistry I Lab 5
CHEM 1112 General Chemistry II 4
& CHEM 1112L General Chemistry II Lab 4

Note that only 8 BT credits can be applied toward your degree.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2211</td>
<td>Inorganic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2232</td>
<td>Quantitative Analysis</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 2234</td>
<td>Quantitative Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3302</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 3304</td>
<td>Organic Chemistry Laboratory II</td>
<td>2</td>
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<tr>
<td>CHEM 3331</td>
<td>Instrumental Analysis</td>
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</tr>
<tr>
<td>CHEM 3334</td>
<td>Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 3341</td>
<td>Topics in Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3342</td>
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<tr>
<td>CHEM 4400</td>
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**Chemistry Minor**

<table>
<thead>
<tr>
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<th>Title</th>
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<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
<td>5</td>
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<tr>
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<td>and General Chemistry I Lab</td>
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<tr>
<td>CHEM 1112</td>
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<tr>
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<td>and General Chemistry II Lab</td>
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<tr>
<td>CHEM 2211</td>
<td>Inorganic Chemistry I</td>
<td>3</td>
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<tr>
<td>CHEM 2213</td>
<td>Inorganic Chemistry I Laboratory</td>
<td>1</td>
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<td>CHEM 4400</td>
<td>Practicum in Physical Science</td>
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**Communication and Rhetorical Studies Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2205</td>
<td>Argumentation</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2286</td>
<td>Visual Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3308</td>
<td>Groups and Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4404</td>
<td>Gender and Communication</td>
<td>3</td>
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<tr>
<td>CMP 4485</td>
<td>Classical Rhetorical Theory</td>
<td>3</td>
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<tr>
<td>CMP 4488</td>
<td>Rhetorical Criticism</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1111</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1118</td>
<td>Oral Interpretation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2251</td>
<td>Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3331</td>
<td>Materials and Methods for High School Speech Arts</td>
<td>3</td>
</tr>
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<td></td>
<td>One 4000 level elective in Speech</td>
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**Communication and Rhetorical Studies Minor**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CMP 2205</td>
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<tr>
<td>CMP 2286</td>
<td>Visual Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3308</td>
<td>Groups and Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4404</td>
<td>Gender and Communication</td>
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</tr>
<tr>
<td>CMP 4485</td>
<td>Classical Rhetorical Theory</td>
<td>3</td>
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<tr>
<td>CMP 4488</td>
<td>Rhetorical Criticism</td>
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**Consumer Economics Minor**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CFS 4431</td>
<td>Family Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4470</td>
<td>Consumer Economics</td>
<td>3</td>
</tr>
<tr>
<td>CFS 4471</td>
<td>Advanced Consumers Economics</td>
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</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
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**Select TWO of the following:**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT 2201</td>
<td>Principles of Accounting I</td>
<td></td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
<td></td>
</tr>
<tr>
<td>CFS 4472</td>
<td>Teaching Consumer Economics</td>
<td></td>
</tr>
<tr>
<td>ECON 3323</td>
<td>Economic History</td>
<td></td>
</tr>
<tr>
<td>ECON 4434</td>
<td>International Trade</td>
<td></td>
</tr>
<tr>
<td>ECON 4435</td>
<td>International Finance</td>
<td></td>
</tr>
<tr>
<td>ECON 4438</td>
<td>Public Finance</td>
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<tr>
<td>MGT 2261</td>
<td>Legal Environment of Organizations</td>
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<tr>
<td>MGT 4461</td>
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<td>MKTG 2225</td>
<td>Basic Marketing Management</td>
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<td>MKTG 4427</td>
<td>Consumer Behavior</td>
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**Deaf Education Minor (non-certification)**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CSD 1126</td>
<td>Deaf Studies</td>
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<tr>
<td>CSD 2205</td>
<td>Introduction to Professions in Communication Sciences</td>
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</tr>
<tr>
<td>CSD 2257</td>
<td>Deaf Culture and Community</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3330</td>
<td>Language Science and Development</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4456</td>
<td>Psychosocial Aspects of Deafness</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4460</td>
<td>Educational Audiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives (8 credits minimum)</td>
<td>8</td>
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<tr>
<td>CSD 1151</td>
<td>American Sign Language I</td>
<td></td>
</tr>
<tr>
<td>CSD 1152</td>
<td>American Sign Language II</td>
<td></td>
</tr>
<tr>
<td>CSD 2251</td>
<td>American Sign Language III</td>
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</tr>
<tr>
<td>CSD 2252</td>
<td>American Sign Language IV</td>
<td></td>
</tr>
<tr>
<td>CSD 4405</td>
<td>Neuroscience for Communication Disorders</td>
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</table>

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.

**Economics Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3323</td>
<td>Economic History</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approved electives in Economics</td>
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**Economics Minor**

<table>
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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3302</td>
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**English Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 2211</td>
<td>Introduction to Literary Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2267</td>
<td>Survey of British Literature I Beginnings through 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 2268</td>
<td>Survey of British Literature II 19th Century to Present</td>
<td></td>
</tr>
<tr>
<td>ENGL 2277</td>
<td>Survey of American Literature I Beginnings to 1860</td>
<td>3</td>
</tr>
</tbody>
</table>
or ENGL 2278 Survey of American Literature II 1860 to Present
ENGL 2280 Grammar and Usage 3
or ENGL 2281 Introduction to Language Studies
ENGL 3311 Writing and Research about Literature 3
ENGL 4433 Methods Teaching English 1 3
ENGL 4491 Senior Seminar in Literature 3
ONE of the following: 3
ENGL 4472 Proseminar in a Major Literary Figure
ENGL 4473 Chaucer
ENGL 4474 Milton
ENGL 4476 Shakespeare
Plus ONE additional course from the following: 3
ENGL 2257 Survey of World Literature I Beginnings through 16th Century 3
or ENGL 2258 Survey of World Literature II 17th Century to Present
ENGL 2267 Survey of British Literature I Beginnings through 18th Century
or ENGL 2268 Survey of British Literature II 19th Century to Present
ENGL 2277 Survey of American Literature I Beginnings to 1860
or ENGL 2278 Survey of American Literature II 1860 to Present
Approved electives (6 cr must be upper division) 9

1 ENGL 4433 must be completed before Student Teaching Internship.

English Minor
ENGL 2211 Introduction to Literary Analysis 3
ENGL 2267 Survey of British Literature I Beginnings through 18th Century 3
or ENGL 2268 Survey of British Literature II 19th Century to Present
ENGL 2277 Survey of American Literature I Beginnings to 1860 3
or ENGL 2278 Survey of American Literature II 1860 to Present
ENGL 2280 Grammar and Usage 3
or ENGL 2281 Introduction to Language Studies
ENGL 3311 Writing and Research about Literature 3
ENGL 4433 Methods Teaching English 1 3
Plus ONE course from the following: 3
ENGL 2206 Creative Writing Workshop
ENGL 3307 Professional and Technical Writing
ENGL 3308 Business Communications
ENGL 4401 Advanced Composition
ENGL 4431 Teaching and Writing Projects Special Topics
Plus ONE course from the following: 3
ENGL 2257 Survey of World Literature I Beginnings through 16th Century
or ENGL 2258 Survey of World Literature II 17th Century to Present
ENGL 2267 Survey of British Literature I Beginnings through 18th Century
or ENGL 2268 Survey of British Literature II 19th Century to Present
ENGL 2277 Survey of American Literature I Beginnings to 1860
or ENGL 2278 Survey of American Literature II 1860 to Present

1 ENGL 4433 must be completed before Student Teaching Internship.

English as a Second Language (ESL) Minor
Foreign Language - Select 8 credits from any foreign language 8
Multicultural Education - Select two of the following: 6
ANTH/ENGL 2212 Introduction to Folklore and Oral Tradition
ANTH 2250 Introduction to Sociocultural Anthropology
ENGL 3356 Ethnicity in Literature
SOC 2248 Critical Analysis of Social Diversity
ESL Methodology 7
EDUC 4460 Foundations of ESL
EDUC 4463 ESL Methods
EDUC 4464 ESL Practicum
Linguistics 6
ANTH/ENGL/LANG 1107 Nature of Language
Select ONE of the following: 3
ANTH 4450 Sociolinguistics
ANTH/LANG 4455 Phonetics

Family and Consumer Sciences Minor
EDUC 2201 Development and Individual Differences 3
CFS 3314 Interior Design and Housing 3
CFS 3332 Programs in Family and Consumer Sciences 3
CFS 4429 Social and Psychological Aspects of Clothing 3
CFS 4431 Family Resource Management 3
EDUC 2204 Families Community Culture 3
NTD 1104 Foods 3
Select ONE of the following: 3
CFS 2209 Early Childhood Environments
CFS 2229 Textile Products
CFS 4435 Relationships within Families
CFS 4470 Consumer Economics
NTD 2204 Meal Management
NTD 2239 Nutrition

This is a non-certification program; please consult an advisor.

French Major
FREN 3301 French Conversation and Composition I 6
& FREN 3302 and French Conversation and Composition II (and their prerequisites or equivalent high school courses) 6
LANG 4437 The Teaching of Foreign Languages 3
Upper division electives in French 1 12

1 Must be approved by the Department of Languages and Literature and the College of Education.

French Minor
FREN 2201 Intermediate French I 8
& FREN 2202 and Intermediate French II (or equivalent) 8
LANG 4437  The Teaching of Foreign Languages  3
Approved electives in French  1  12

1  Must be approved by the Department of Languages and Literatures and the College of Education.

Geology Major

GEOL 1100  The Dynamic Earth  3-4
& 1100L  and The Dynamic Earth Lab
or GEOL 1101  Physical Geology
GEOL 1110  Physical Geology for Scientists Laboratory  1  1
GEOL 2202  Historical Geology  3
GEOL 2210  Earth in Space and Time  3
GEOL 3306  Environmental Geology  3
GEOL 3313  Earth Materials I  2  3
GEOL 3315  Evolution of the Earth's Surface  4
GEOL 4400  Practicum in Geology Teaching  1
GEOL/PHYS 4410  Science in American Society  2
GEOL/HIST/POLS 4471  Historical Geography of Idaho  3

Plus approved electives from the following, to reach a total of at least 30 credits:

GEOL 3314  Earth Materials II
GEOL 4403  Principles of Geographic Information Systems
GEOL 4405  Volcanology
GEOL 4416  Global Environmental Change
GEOL 4420  Principles of Geochemistry
GEOL 4422  Planetary 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 4491  Seminar

Other geoscience courses as approved by advisor

1  Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).
2  (PREREQ or COREQ CHEM 1111)

German Major

GERM 3301  German Conversation and Composition I  6
& GERM 3302  and German Conversation and Composition II (and their prerequisites or equivalent high school courses)
LANG 4437  The Teaching of Foreign Languages  3

Upper division electives in German  1  12

1  Must be approved by Department of Languages and Literatures and College of Education

German Minor

GERM 2201  Intermediate German I  8
& GERM 2202  and Intermediate German II (or equivalent)
LANG 4437  The Teaching of Foreign Languages  3

Approved electives in German  1  12

1  Must be approved by Department of Languages and Literatures and College of Education.

Health Education Teaching Major

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Health Education Core:

HE 2200  Promoting Wellness  3
HE 2221  Introduction to Health Education  3
HE 3340  Fitness and Wellness Programs  3
& 3340L  and Fitness and Wellness Programs Laboratory  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 4435  Health Program Evaluation and Research  3

Plus the following School Health Emphasis Courses:

HE 4430  Curriculum and Methods in Health Education  3
HE 4442  Environmental Health and Health Education  3
HE 4443  Substance Abuse and Health Education  3
HE 4445  Human Sexuality and Health Education  3

Total Hours  33
Health Education Teaching Minor

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2200</td>
<td>Promoting Wellness</td>
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</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs had</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 3340L</td>
<td>and Fitness and Wellness Programs Laboratory</td>
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</tr>
<tr>
<td>HE 3342</td>
<td>Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4430</td>
<td>Curriculum and Methods in Health Education</td>
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Plus TWO of the following three courses: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HE 4442</td>
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<tr>
<td>HE 4443</td>
<td>Substance Abuse and Health Education</td>
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</tr>
<tr>
<td>HE 4445</td>
<td>Human Sexuality and Health Education</td>
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</table>

Total Hours 21

History Major

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 36 credits from the following six categories. Candidates seeking certification in history must have 9 credits in U.S. History (HIST 1118 and HIST 4418, plus an additional course). In addition, POLS 1101 partially fulfills Objective 6 and HIST 1118 fulfills Objective 7 of the General Education Requirements.

Category I: World Regions (9 credits, at least 3 of which must be in HIST 1101 or HIST 1102)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
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</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2249</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2254</td>
<td>Middle Eastern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2255</td>
<td>African History and Culture</td>
<td>3</td>
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</tbody>
</table>

Category II: Research Skills (6 credits). Candidates must take both of the following courses sequentially.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2291</td>
<td>The Historian's Craft</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4491</td>
<td>Seminar</td>
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</table>

Category III: Courses for Teachers

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 4418</td>
<td>United States History for Teachers</td>
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Plus ONE of the following:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 3307</td>
<td>Early North America</td>
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<tr>
<td>HIST 3308</td>
<td>Industrialization and Reform in the United States</td>
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</tr>
<tr>
<td>HIST 3309</td>
<td>Modern United States</td>
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</tbody>
</table>

Category IV: Upper Division U.S. History: 6 credits

Choose one 3000-level course and one 4000-level course from the Category IV list of upper division History elective courses in the Bachelor of Arts in History in the Arts and Letters section of this catalog.

Category V: Upper Division World, Comparative and Non-U.S. History: 6 credits

Choose two courses from the Category V list of upper division History elective courses in the Bachelor of Arts in History in the Arts and Letters section of this catalog.

Category VI: Electives: 6 credits

Choose two courses from the Category IV, V and VI lists of upper division History elective courses in the Bachelor of Arts in History in the Arts and Letters section of this catalog.

History Minor

Category I: World Regions (6 credits, at least 3 of which must be HIST 1101 or HIST 1102)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2254</td>
<td>Middle Eastern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2255</td>
<td>African History and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

Category II: Research Skills (6 credits). Candidates must take both of the following courses sequentially.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2291</td>
<td>The Historian's Craft</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4491</td>
<td>Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Category III: Courses for Teachers

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 4418</td>
<td>United States History for Teachers</td>
<td>3</td>
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Plus ONE of the following:

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 3307</td>
<td>Early North America</td>
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<tr>
<td>HIST 3308</td>
<td>Industrialization and Reform in the United States</td>
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<tr>
<td>HIST 3309</td>
<td>Modern United States</td>
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Mass Communication Minor

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<th>Course</th>
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<tbody>
<tr>
<td>ENGL 4433</td>
<td>Methods Teaching English (highly recommended)</td>
<td>3</td>
</tr>
<tr>
<td>CMP 1110</td>
<td>Introductory Convergent Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2251</td>
<td>Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3310</td>
<td>Multiplatform Storytelling</td>
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Approved electives selected from:

<table>
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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>CMP 2271</td>
<td>Introduction to Television Production</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3311</td>
<td>Public Affairs and Investigative Reporting</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3339</td>
<td>Web Design</td>
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<tr>
<td>CMP 4403</td>
<td>Mass Communication and Society</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4410</td>
<td>Mass Media History, Law, and Ethics</td>
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### Mathematics Major

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CS/NE 1181</td>
<td>Computer Science and Programming I</td>
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<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1175</td>
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<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
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<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MATH 2287</td>
<td>Foundations of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3326</td>
<td>Elementary Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3343</td>
<td>Modern Geometry I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3352</td>
<td>Introduction to Probability</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4407</td>
<td>Modern Algebra I</td>
<td>3</td>
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<th>Credits</th>
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<tr>
<td>MATH 3327</td>
<td>Vector Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4408</td>
<td>Modern Algebra II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4444</td>
<td>Modern Geometry II</td>
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### Mathematics Minor

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CS/NE 1181</td>
<td>Computer Science and Programming I</td>
<td>3</td>
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<td>MATH 1170</td>
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<td>4</td>
</tr>
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<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MATH 2287</td>
<td>Foundations of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3343</td>
<td>Modern Geometry I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3352</td>
<td>Introduction to Probability</td>
<td>3</td>
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And ONE of the following:

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<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 3326</td>
<td>Elementary Analysis</td>
<td>3</td>
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<tr>
<td>MATH 4407</td>
<td>Modern Algebra I</td>
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<tr>
<td>MATH 4444</td>
<td>Modern Geometry II</td>
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### Music Education

See Bachelor of Music Education (p. 212) degree program (K-12 certification) for requirements.

### Physical Education Major

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>PE 2222</td>
<td>First Aid CPR and Sport Safety</td>
<td>3</td>
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<tr>
<td>PE 2223</td>
<td>Foundations of Physical Education and Sport</td>
<td>3</td>
</tr>
<tr>
<td>PE 2235</td>
<td>Activity Performance Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>PE 2236</td>
<td>Activity Performance Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>PE 2237</td>
<td>Activity Performance Techniques III</td>
<td>3</td>
</tr>
<tr>
<td>PE 2243</td>
<td>Anatomical Foundations of Human Activity</td>
<td>3</td>
</tr>
<tr>
<td>PE 2281</td>
<td>Practical Outdoor Skills</td>
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</tr>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
<td>3</td>
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<tr>
<td>PE 3301</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>PE 3301L</td>
<td>and Physiology of Exercise Laboratory</td>
<td></td>
</tr>
<tr>
<td>PE 3302</td>
<td>Biomechanics</td>
<td>4</td>
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<tr>
<td>PE 3302L</td>
<td>and Biomechanics Laboratory</td>
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<tr>
<td>PE 3322</td>
<td>Introduction to Sport Psychology</td>
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<tr>
<td>PE 3357</td>
<td>Methods of Teaching Elementary Physical Education</td>
<td>3</td>
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<td>PE 3362</td>
<td>Tests and Measurements in Physical Education</td>
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<tr>
<td>PE 3364</td>
<td>Introduction to Sport Law</td>
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<tr>
<td>PE 3370</td>
<td>Care and Prevention of Athletic Injuries</td>
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<td>PE 4437</td>
<td>Methods of Teaching Secondary Physical Education</td>
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<td>PE 4475</td>
<td>Organization and Administration of Physical Education</td>
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<td>PE 4494</td>
<td>Adapted Physical Activity</td>
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In addition: Candidate must present a current Red Cross First Aid and CPR Card to advisor at the time of graduation.

### Physics Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHYS 1152</td>
<td>Descriptive Astronomy</td>
<td>4</td>
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<tr>
<td>PHYS 1153</td>
<td>and Descriptive Astronomy Laboratory</td>
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<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>8</td>
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<tr>
<td>PHYS 2212</td>
<td>and Engineering Physics II</td>
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</tr>
<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 2214</td>
<td>and Engineering Physics II Laboratory</td>
<td></td>
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<tr>
<td>PHYS 3301</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4400</td>
<td>Practicum in Physical Science</td>
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<tr>
<td>PHYS 4403</td>
<td>Advanced Modern Physics</td>
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<tr>
<td>PHYS/GEOL 4410</td>
<td>Science in American Society</td>
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<td>Approved electives in Physics</td>
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</table>

1 Calculus is required for PHYS 2211 - PHYS 2212.
2 MATH 3360 is required for PHYS 3301

### Physics Minor

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PHYS 1152</td>
<td>Descriptive Astronomy</td>
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<tr>
<td>PHYS 1153</td>
<td>and Descriptive Astronomy Laboratory</td>
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<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
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<tr>
<td>PHYS 2212</td>
<td>and Engineering Physics II</td>
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<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 2214</td>
<td>and Engineering Physics II Laboratory</td>
<td></td>
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<tr>
<td>PHYS 4400</td>
<td>Practicum in Physical Science</td>
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<td>Science in American Society</td>
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1 Two semesters of calculus are required for PHYS 2212.

### Political Science Major

Credits selected from core curriculum (excluding POLS 4460) 24

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 1118</td>
<td>US History and Culture</td>
<td>3</td>
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<tr>
<td>HIST 4418</td>
<td>United States History for Teachers</td>
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### Political Science Minor

<table>
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<tr>
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<th>Credits</th>
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<td>3</td>
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<tr>
<td>HIST 4418</td>
<td>United States History for Teachers</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1101</td>
<td>Introduction to United States Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3313</td>
<td>Introduction to Political Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3331</td>
<td>Comparative Politics Framework for Analysis</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4403</td>
<td>The Presidency</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 4404</td>
<td>The Legislative Process</td>
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Select ONE of the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>POLS 4401</td>
<td>Political Parties and Groups</td>
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### Political Science

<table>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>POLS 1101</td>
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<td>3</td>
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<tr>
<td>POLS 2221</td>
<td>Introduction to International Relations</td>
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### Economics

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<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
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### Geography

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<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth</td>
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<td>HIST 2249</td>
<td>World Regional Geography</td>
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### History

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<tbody>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
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<td>HIST 1102</td>
<td>Modern Europe</td>
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<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td>6</td>
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<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
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</table>

### Social Studies Major

Must be accompanied by a major or minor in Economics, History, or Political Science. 47-48 credits total; up to 12 of the credits may satisfy General Education Requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDUC 3336</td>
<td>Social Science Methods</td>
<td>3</td>
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<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
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### Additional Political Science Courses

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<tbody>
<tr>
<td>POLS 3308</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3313</td>
<td>Introduction to Political Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3331</td>
<td>Comparative Politics Framework for Analysis</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3326</td>
<td>Recent US Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4401</td>
<td>Political Parties and Groups</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4403</td>
<td>The Presidency</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4404</td>
<td>The Legislative Process</td>
<td>3</td>
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<tr>
<td>POLS 4411</td>
<td>American Political Theory</td>
<td>3</td>
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<td>POLS 4443</td>
<td>Civil Rights and Liberties</td>
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### Sociology Major

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>SOC 1102</td>
<td>Social Problems</td>
<td>3</td>
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### Political Science Courses

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SOC/SOWK 3308</td>
<td>Sociological Methods and Social Research</td>
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<tr>
<td>SOC 2231</td>
<td>Juvenile Delinquency</td>
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</table>
### Sociology Minor

- **SOC 1101** Introduction to Sociology 3
- **SOC 1102** Social Problems 3
- **SOC/SOWK 3308** Sociological Methods and Social Work Research 3
- **SOC 3301** Classical Social Theory 3

#### Electives selected from:

- **SOC 3309** Social Statistics
- **SOC 3321** Families in American Society
- **SOC 3335** Population and Environment
- **SOC 4403** Contemporary Social Theory
- **SOC 4408** Advanced Sociological Methods
- **SOC 4413** Mind Body and Society
- **SOC 4431** Criminology

### Spanish Major

- **SPAN 3301** Spanish Conversation and Composition I 6
- **SPAN 3302** Spanish Conversation and Composition II (and their prerequisites or equivalent high school courses) 6
- **LANG 4437** The Teaching of Foreign Languages 3

#### Upper Division electives in Spanish (must be approved by the Department of Languages and Literatures and the College of Education)

12

### Spanish Minor

- **SPAN 2201** Intermediate Spanish I 8
- **SPAN 2202** Intermediate Spanish II (OR equivalent) 8
- **LANG 4437** The Teaching of Foreign Languages 3

#### Approved electives in Spanish (must be approved by the Department of Languages and Literatures and the College of Education)

12

### Theatre Major

- **THEA 1101** Survey of Theatre 3
- **THEA 1111** Stagecraft 3
- **THEA 2251** Fundamentals of Acting 3
- **THEA 2252** Intermediate Acting Scene Study 3
- **THEA 3331** Materials and Methods for High School Speech Arts 3
- **THEA 4455** Beginning Stage Direction 3

#### Select ONE of the following:

- **THEA 2214** Makeup
- **THEA 2221** Stage Costume Construction
- **THEA 3304** Theatre Management

#### Select ONE of the following:

- **THEA 4400** Theatre Background I
- **THEA 4401** Theatre Background II
- **THEA 4419** Modern European Theatre
- **THEA 4420** American Theatre History
- **THEA 4470** Contemporary Theatre

### Theatre Minor

- **THEA 1101** Survey of Theatre 3
- **THEA 1111** Stagecraft 3
- **THEA 2251** Fundamentals of Acting 3
- **THEA 2252** Intermediate Acting Scene Study 3
- **THEA 1191** Theatre Production 1
- **AND/OR**
  - **THEA 3391** Theatre Production
- **THEA 4455** Beginning Stage Direction 3

#### Select ONE of the following:

- **THEA 2214** Makeup
- **THEA 2221** Stage Costume Construction
- **THEA 3304** Theatre Management

#### Select ONE of the following:

- **THEA 4400** Theatre Background I
- **THEA 4401** Theatre Background II
- **THEA 4419** Modern European Theatre
- **THEA 4420** American Theatre History
- **THEA 4470** Contemporary Theatre

### Single Subject Teaching Majors

#### Art

- **ART 1100** Introduction to Art 3
- **ART 1101** Survey of Art History I 6
- **ART 1102** and Survey of Art History II 6
- **ART 1103** Creative Process 6
- **ART 1104** and Creative Process 6
- **ART 1105** Drawing I 3
- **ART 3334** Secondary Art School Methods 3

#### Approved electives in Art 24
### Biological Sciences

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
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<td>or MATH 1153</td>
<td>Introduction to Statistics</td>
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<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
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<tr>
<td>&amp; 1101L</td>
<td>and Biology I Lab</td>
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</tr>
<tr>
<td>BIOL 1102</td>
<td>Biology II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1102L</td>
<td>and Biology II Lab</td>
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<tr>
<td>BIOL 2206</td>
<td>Cell Biology</td>
<td>4</td>
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<td>and Cell Biology Laboratory</td>
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<td>BIOL 2209</td>
<td>General Ecology</td>
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<td>Biology Teaching Methods</td>
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<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
<td>3</td>
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<tr>
<td>BIOL 4491</td>
<td>Seminar</td>
<td>2</td>
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<tr>
<td>&amp; BIOL 4492</td>
<td>and Seminar</td>
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</tbody>
</table>

Approved electives in Biology (3-4 credits plant/botany course required) ² 14

¹ BIOL 2206, BIOL 2207 have a prereq of CHEM 1112, CHEM 1112L, General Chemistry II, and Lab, 4 credits.

² Approved electives are listed in the Biological Sciences section of the College of Science and Engineering.

### Business Education

Select one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ACCT 2201</td>
<td>Principles of Accounting I</td>
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<tr>
<td>ACCT 3303</td>
<td>Accounting Concepts</td>
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<tr>
<td>BT 0120</td>
<td>Concepts of Accounting ¹</td>
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<tr>
<td>BT 0147</td>
<td>Accounting Applications ¹</td>
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<tr>
<td>BT 0148</td>
<td>Payroll Procedures ¹</td>
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<tr>
<td>BT 0171</td>
<td>Computerized Accounting ¹</td>
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<td>BED 3332</td>
<td>Methods in Business Education</td>
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<tr>
<td>BED 3341</td>
<td>Leadership and Advising in Career Technical Student Organizations I</td>
<td>1</td>
</tr>
<tr>
<td>BED 3342</td>
<td>Leadership and Advising in Career Technical Student Organizations II</td>
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<tr>
<td>BED 3343</td>
<td>Leadership and Advising in Career Technical Student Organizations III</td>
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<tr>
<td>BT 0144</td>
<td>Document Processing ¹</td>
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<td>CMP 2231</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
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<tr>
<td>ENGL 3308</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>OLP 4401</td>
<td>Foundations of Human Resource Development</td>
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Select two of the following: 6

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<tbody>
<tr>
<td>CFS 4470</td>
<td>Consumer Economics</td>
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<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
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Select 18 credits from recommended and approved courses. 18

Total Hours 45

### Recommended and Approved Courses:

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<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
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<tr>
<td>BA 1110</td>
<td>The World of Business</td>
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<tr>
<td>BED 4485</td>
<td>Independent Study in Business Education</td>
<td>1-3</td>
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<tr>
<td>CFS 4470</td>
<td>Consumer Economics</td>
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<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
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</tr>
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<td>CMP 2261</td>
<td>Introduction to Advertising</td>
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<tr>
<td>CMP 3335</td>
<td>Typography and Layout</td>
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<td>COUN 1150</td>
<td>Career and Life Planning</td>
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<tr>
<td>ECON 1100</td>
<td>Economic Issues</td>
<td>3</td>
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<td>Principles of Microeconomics</td>
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<td>ECON 3301</td>
<td>Macroeconomic Theory</td>
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<td>ECON 3302</td>
<td>Microeconomic Theory</td>
<td>3</td>
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<tr>
<td>ECON 3323</td>
<td>Economic History</td>
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<td>ECON 4431</td>
<td>Money and Banking</td>
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<td>FIN 1115</td>
<td>Personal Finance</td>
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<td>FIN 3303</td>
<td>Financial Concepts</td>
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<td>INFO 1110</td>
<td>Web Development: Essentials</td>
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<td>INFO 1120</td>
<td>Web Development: Client-Side Programming</td>
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<td>INFO 3301</td>
<td>Introduction to Informatics and Analytics</td>
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<td>INFO 4430</td>
<td>Web Application Development</td>
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<td>MGT 2261</td>
<td>Legal Environment of Organizations</td>
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<td>MGT 3303</td>
<td>Management Concepts</td>
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<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
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<td>MGT 4462</td>
<td>Issues in Business and Society</td>
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<td>OLP 4402</td>
<td>Occupational Analysis and Course Construction</td>
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<tr>
<td>OLP 4403</td>
<td>Methods of Training</td>
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¹ Note that only 8 BT credits can be applied toward your degree.

### Chemistry

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<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
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<td>&amp; 1111L</td>
<td>and General Chemistry I Lab</td>
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<tr>
<td>CHEM 1112</td>
<td>General Chemistry II</td>
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<tr>
<td>&amp; 1112L</td>
<td>and General Chemistry II Lab</td>
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<tr>
<td>CHEM 2211</td>
<td>Inorganic Chemistry I</td>
<td>3</td>
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<tr>
<td>CHEM 2232</td>
<td>Quantitative Analysis</td>
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<tr>
<td>CHEM 2234</td>
<td>Quantitative Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3302</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 3304</td>
<td>and Organic Chemistry Laboratory II</td>
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<tr>
<td>CHEM 3331</td>
<td>Instrumental Analysis</td>
<td>2</td>
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<tr>
<td>CHEM 3334</td>
<td>Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 3341</td>
<td>Topics in Physical Chemistry</td>
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</tr>
<tr>
<td>CHEM 3342</td>
<td>Topics in Physical Chemistry</td>
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<tr>
<td>CHEM 4400</td>
<td>Practicum in Physical Science</td>
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Approved electives in Chemistry 7

### Communication and Rhetorical Studies

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<tbody>
<tr>
<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
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<tr>
<td>CMP 2205</td>
<td>Argumentation</td>
<td>3</td>
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<tr>
<td>CMP 2286</td>
<td>Visual Rhetoric</td>
<td>3</td>
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</tbody>
</table>
CMP 3308  Groups and Communication  3
CMP 4404  Gender and Communication  3
CMP 4485  Classical Rhetorical Theory  3
THEA 1111  Stagecraft  3
THEA 1118  Oral Interpretation of Literature  3
THEA 2251  Fundamentals of Acting  3
THEA 3331  Materials and Methods for High School Speech Arts  3
Electives in 4000-level Communication and Rhetorical Studies courses  9
Electives (4 credits) selected from:  4
THEA 2214  Makeup  
THEA 2221  Stage Costume Construction  
THEA 3304  Theatre Management  
THEA 3312  Stage Lighting Design  

English  
ENGL 2211  Introduction to Literary Analysis  3
ENGL 2277  Survey of American Literature I Beginnings to 1860  3
or ENGL 2278  Survey of American Literature II 1860 to Present  
ENGL 2267  Survey of British Literature I Beginnings through 18th Century  3
or ENGL 2268  Survey of British Literature II 19th Century to Present  
ENGL 2281  Introduction to Language Studies  3
ENGL 3311  Writing and Research about Literature  3
ENGL 4433  Methods Teaching English  3
ENGL 4491  Senior Seminar in Literature  3
Select ONE of the following:  3
ENGL 4472  Proseminar in a Major Literary Figure  
ENGL 4473  Chaucer  
ENGL 4474  Milton  
ENGL 4476  Shakespeare  
Select ONE of the following:  3
ENGL 4481  Studies In Grammar  
ENGL 4484  Rotating Topics in Linguistics  
ENGL 4486  Old English  
Plus ONE additional course from the following:  3
ENGL 2257  Survey of World Literature I Beginnings through 16th Century  
or ENGL 2258  Survey of World Literature II 17th Century to Present  
ENGL 2267  Survey of British Literature I Beginnings through 18th Century  
or ENGL 2268  Survey of British Literature II 19th Century to Present  
ENGL 2277  Survey of American Literature I Beginnings to 1860  
or ENGL 2278  Survey of American Literature II 1860 to Present  
ONE genre course  3
TWO additional upper-division historical period courses  6
Approved electives  (excluding lower division composition courses)  6

1  ENGL 4433 must be completed before Student Teaching Internship.

Family and Consumer Sciences Education  
CFS 1100  Child and Family Studies Professions  1
CFS 2209  Early Childhood Environments  3
CFS 2229  Textile Products  3
CFS 3314  Interior Design and Housing  3
CFS 3332  Programs in Family and Consumer Sciences  3
CFS 4429  Social and Psychological Aspects of Clothing  3
CFS 4431  Family Resource Management  3
CFS 4435  Relationships within Families  3
CFS 4470  Consumer Economics  3
NTD 1104  Foods  3
NTD 1139  Consumer Nutrition  3
NTD 2204  Meal Management  2
OLP 4401  Foundations of Human Resource Development  3

Recommended Electives  
CFS 4471  Advanced Consumers Economics  3
CFS 4472  Teaching Consumer Economics  1-3
CFS 4494  Partnerships with Professionals  3,6
ECON 2201  Principles of Macroeconomics  3
ECON 2202  Principles of Microeconomics  3
NTD 2239  Nutrition  3
NTD 3312  Quantity Foods  3
& 3312L  and Quantity Foods Laboratory  
NTD 3360  Nutrition Through the Lifecycle  3
NTD 4439  Sports Nutrition  3
OLP 4402  Occupational Analysis and Course Construction  3
OLP 4403  Methods of Training  3
OLP 4405  Learning Fundamentals  3
OLP 4409  Professional Readings and Writing in Human Resource Development  3
OLP 4444  Ethics and Diversity in the Workplace  3

Total Hours  36  40-45

Geology  
Required Courses:  
GEOL 1100  The Dynamic Earth  & The Dynamic Earth Lab  3-4
or GEOL 1101  Physical Geology  
GEOL 1110  Physical Geology for Scientists Laboratory  1
GEOL 2202  Historical Geology  3
GEOL 2210  Earth in Space and Time  3
GEOL 3306  Environmental Geology  3
GEOL 3313  Earth Materials I  3
GEOL 3315  Evolution of the Earth's Surface  4
GEOL 4400  Practicum in Geology Teaching  1
GEOL/PHYS 4410  Science in American Society  2
GEOL 4421  Structural Geology  4
GEOL 4431  Geobiology and the History of Life  4
GEOL 4452  Sedimentation-Stratigraphy  4
GEOL/HIST/POLS Historical Geography of Idaho 4471

**Plus electives from the following to reach a total of at least 45 credits:** 45

- GEOL 3314 Earth Materials II
- GEOL 4403 Principles of Geographic Information Systems
- GEOL 4405 Volcanology
- GEOL 4407 GPS Applications in Research
- GEOL 4409 Remote Sensing
- GEOL 4416 Global Environmental Change
- GEOL 4420 Principles of Geochemistry
- GEOL 4422 Planetary Geology
- GEOL 4430 Principles of Hydrogeology
- GEOL 4435 Field Geology
- GEOL 4456 Geology of Idaho
- GEOL 4458 Geology of North America
- GEOL 4491 Seminar

Other geology electives may be applied as approved by advisor

1. Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).
2. (PREREQ or COREQ: CHEM 1111)

### Health Education

**Prerequisites:**
- Admission to Teacher Education Program
- Admission to Health Education Program

**Required Courses:**

- HE 2200 Promoting Wellness 3
- HE 2221 Introduction to Health Education 3
- HE 3340 Fitness and Wellness Programs 3
- & 3340L and Fitness and Wellness Programs Laboratory 3
- HE 3342 Stress and Emotional Health 3
- HE 3383 Epidemiology 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 and Health Education 3
- HE 4443 Substance Abuse and Health Education 3
- HE 4445 Human Sexuality and Health Education 3
- HE 4473 Healthcare Strategic Planning and Marketing 3

**Approved Electives**

Total Hours 45

**Mathematics**

- CS 1181 Computer Science and Programming I 3
- MATH 1170 Calculus I 4
- MATH 1175 Calculus II 4
- MATH 2240 Linear Algebra 3
- MATH 2275 Calculus III 4
- MATH 2287 Foundations of Mathematics 3
- MATH 3326 Elementary Analysis 3
- MATH 3343 Modern Geometry I 3
- MATH 3352 Introduction to Probability 3
- MATH 4407 Modern Algebra I 3
- MATH 4408 Modern Algebra II 3

Approved upper-division mathematics electives including at least 3 credits at the 4000-level 9

### Music Education

See Bachelor of Music Education (p. 212) degree.

### Physical Education

- PE 2222 First Aid CPR and Sport Safety 3
- PE 2223 Foundations of Physical Education and Sport 3
- PE 2235 Activity Performance Techniques I 3
- PE 2236 Activity Performance Techniques II 3
- PE 2237 Activity Performance Techniques III 3
- PE 2243 Anatomical Foundations of Human Activity 3
- PE 2281 Practical Outdoor Skills 1
- PE 3300 Movement Theory and Motor Development 3
- PE 3301 Physiology of Exercise 4
- & 3301L and Physiology of Exercise Laboratory 4
- PE 3302 Biomechanics 4
- & 3302L and Biomechanics Laboratory 4
- PE 3322 Introduction to Sport Psychology 3
- PE 3357 Methods of Teaching Elementary Physical Education 3
- PE 3362 Tests and Measurements in Physical Education 3
- PE 3364 Introduction to Sport Law 3
- 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

**Aquatics (consult with advisor)** 1

**Total Hours** 55

IN ADDITION: Candidate must present a current Red Cross First Aid and CPR Card to advisor at the time of graduation.

### Theatre

- CMP 2205 Argumentation 3
- CMP 3308 Groups and Communication 3
- THEA 1101 Survey of Theatre 3
- THEA 1111 Stagecraft 3
- THEA 1191 Theatre Production 1

**AND/OR**

- THEA 3391 Theatre Production 3
- THEA 2211 Drafting 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 Theatre Management 2
- THEA 3311 Introduction to Scene Design 3
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>THEA 3312</td>
<td>Stage Lighting Design</td>
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<tr>
<td>or THEA 4403</td>
<td>Stage Costume Design</td>
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</tr>
<tr>
<td>THEA 3331</td>
<td>Materials and Methods for High School Speech Arts</td>
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<tr>
<td>THEA 4455</td>
<td>Beginning Stage Direction</td>
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<td><strong>Select ONE of the following:</strong></td>
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<td>THEA 4400</td>
<td>Theatre Background I</td>
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<tr>
<td>THEA 4401</td>
<td>Theatre Background II</td>
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<tr>
<td>THEA 4419</td>
<td>Modern European Theatre</td>
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<td>American Theatre History</td>
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<tr>
<td>THEA 4470</td>
<td>Contemporary Theatre</td>
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</table>
Music Education

Bachelor of Music Education

The Bachelor of Music Education is a nine-semester degree program designed to prepare candidates to obtain a teaching credential certificate to teach in the elementary and secondary schools. Complete information on admission to the 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.

Candidates must complete requirements and be fully admitted to teacher education before they can take courses in professional education numbered 3000 and above.

Bachelor of Music Education

The Bachelor of Music Education is a nine-semester degree program designed to prepare students to teach music in secondary and elementary schools. Graduating students will be eligible for certification K-12, vocal and instrumental music.

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. 183) 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. 47) described in the Academic Information section of this Catalog).

Professional Education Requirements

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<tr>
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<td>EDUC 2204</td>
<td>Families Community Culture</td>
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<td>EDUC 3301</td>
<td>Inquiring Thinking Knowing</td>
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<td>EDUC 4401</td>
<td>Content Area Literacy</td>
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<tr>
<td>SPED 3350</td>
<td>Creating Inclusive Classrooms</td>
<td>3</td>
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<tr>
<td>EDUC 4492</td>
<td>Secondary Music Education Student Teaching</td>
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<tr>
<td></td>
<td>Internship</td>
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Basic Music Requirements

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<td>MUSC 1104</td>
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<td>MUSC 1107</td>
<td>Recital Attendance (7 semesters)</td>
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<td>MUSC 1108</td>
<td>The World of Music (partially satisfies General Education Objective 6)</td>
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<td>MUSC 1113</td>
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<tr>
<td>MUSC 1127</td>
<td>Class Voice</td>
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<tr>
<td>or MUSP 1172</td>
<td>ISU Women's Choir</td>
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<td>or MUSP 1173</td>
<td>Concert Choir</td>
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<td>MUSC 2203</td>
<td>Theory of Music III</td>
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<td>Theory of Music IV</td>
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<td>MUSC 2256</td>
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<td>MUSC 2258</td>
<td>Percussion Methods</td>
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<td>MUSC 2259</td>
<td>String Methods</td>
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<td>MUSC 3305</td>
<td>Music History II</td>
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<td>MUSC 3306</td>
<td>Music History III</td>
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<tr>
<td>MUSC 3311</td>
<td>Form and Analysis</td>
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<td>MUSC 3312</td>
<td>Music Technology</td>
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<td>MUSC 3319</td>
<td>Choral Conducting</td>
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<td>Instrumental Conducting</td>
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<td>MUSC 3333</td>
<td>Elementary Music Methods</td>
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<td>Choral Music Methods</td>
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<td>Instrumental Music Methods</td>
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</tr>
<tr>
<td>MUSC 3338</td>
<td>Field Experience in Music Education</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4401</td>
<td>Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>Applied music (major instrument or voice)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Large Performing Ensembles (band, orchestra, choir)</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

In Addition:

Solo or joint senior recital

Piano proficiency

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

Faculty

Assistant Professor
Karren Streagle

The Special Education major provides candidates with a bachelor’s degree in special education and prepares candidates for professional certification as K-12 generalists in special education. This program also prepares individuals pursuing non-teaching degrees in Special Education.

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.

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.

Retention and Exit Requirements

In addition to meeting all of the retention and exit requirements of the College of Education, candidates must maintain at least a 3.0 GPA in the program courses. If a candidate earns two grades of C or lower in any program courses, the candidate will not be allowed to progress in the program and must reapply to the program. Candidates in the program must also maintain an overall GPA of 2.75 or better. If a candidate’s overall GPA falls below 2.75 for two consecutive semesters, the candidate will not be allowed to progress in the program and must reapply to the program. (Special Education majors must also meet the requirements for general teacher education.)

The Bachelor of Arts or Bachelor of Science in Special Education can be completed either as a non-teaching major for candidates who are interested in working with people with disabilities outside the public school context or as a teaching major for candidates who wish to earn special education certification as K-12 Generalists. The course requirements are the same for the teaching and non-teaching majors. For candidates in the non-teaching major, practica are arranged in non-school settings.

Course Requirements for the B.A. or B.S. degree (in addition to university requirements):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 2201</td>
<td>Development and Individual Differences</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2204</td>
<td>Families Community Culture</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3322</td>
<td>Literature for Children across the Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>or PE 4494</td>
<td>Adapted Physical Activity</td>
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</tr>
<tr>
<td>SPED 3312</td>
<td>Assistive Technology</td>
<td>3</td>
</tr>
<tr>
<td>SPED 3330</td>
<td>The Exceptional Child</td>
<td>4</td>
</tr>
<tr>
<td>SPED 3340</td>
<td>Principles of Behavior Management</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4423</td>
<td>Designing Instruction</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4424</td>
<td>Assessment Procedures in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4429</td>
<td>Strategies:Severe Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4430</td>
<td>Practicum in Individualized Instruction</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4432</td>
<td>Direct Instruction Systems</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4434</td>
<td>Language and Communication Methods in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4435</td>
<td>Practicum in Small Group Instruction</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4436</td>
<td>Math Methods for Children with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4437</td>
<td>Practicum in Large Group Instruction</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4438</td>
<td>Policies and Procedures in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4443</td>
<td>Autism</td>
<td>3</td>
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<tr>
<td>SPED 4446</td>
<td>Secondary Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4490</td>
<td>Consultation and Collaboration</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4495</td>
<td>Special Education:Student Teaching Internship</td>
<td>1-4</td>
</tr>
</tbody>
</table>

1 This is a 7-14 credit course taken for a total of 14 credits.

Approved Electives (choose 9 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDUC 2215</td>
<td>Using Technology in a Digital World</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4426</td>
<td>Assessment:Severe Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4433</td>
<td>The Emotionally Disturbed Child</td>
<td>2</td>
</tr>
<tr>
<td>SPED 4462</td>
<td>Seminar:Behavior Disorders</td>
<td>1</td>
</tr>
<tr>
<td>SPED 4480</td>
<td>Seminar in Special Education (to be taken twice for 2 credit total)</td>
<td>1</td>
</tr>
<tr>
<td>SPED 4481</td>
<td>Advanced Issues in Behavior Disorders</td>
<td>2</td>
</tr>
<tr>
<td>SPED 4485</td>
<td>Independent Problems</td>
<td>1-3</td>
</tr>
<tr>
<td>SPED 4498</td>
<td>Advanced Field Work</td>
<td>1-3</td>
</tr>
<tr>
<td>CSD 1151</td>
<td>American Sign Language I &amp; 1151L</td>
<td>4</td>
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<tr>
<td></td>
<td>and American Sign Language I Laboratory</td>
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</tr>
<tr>
<td>CSD 2205</td>
<td>Introduction to Professions in Communication Sciences</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 3335</td>
<td>Elementary School Art Methods and Materials</td>
<td>2</td>
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<tr>
<td>EDUC 4460</td>
<td>Foundations of ESL</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 4463</td>
<td>ESL Methods</td>
<td>3</td>
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<tr>
<td>EDUC 4464</td>
<td>ESL Practicum</td>
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<tr>
<td>EDUC 4471</td>
<td>Interpersonal Communications</td>
<td>2</td>
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<tr>
<td>HE 2211</td>
<td>Health Education Methods Elementary</td>
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<tr>
<td>MUSC 2233</td>
<td>Music Methods for Elementary Teachers</td>
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<tr>
<td>PE 3357</td>
<td>Methods of Teaching Elementary Physical Education</td>
<td>3</td>
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<tr>
<td>PSYC 2225</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3332</td>
<td>Psychology of Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4445</td>
<td>Learning and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2231</td>
<td>Juvenile Delinquency</td>
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Reading Endorsement
A candidate seeking special education certification as a K-12 Generalist should consult faculty advisors in the Department to learn about adding a reading endorsement.

Deaf Education Minor (non-certification)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CSD 1126</td>
<td>Deaf Studies</td>
<td>1</td>
</tr>
<tr>
<td>CSD 2205</td>
<td>Introduction to Professions in Communication Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CSD 2257</td>
<td>Deaf Culture and Community</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3330</td>
<td>Language Science and Development</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4456</td>
<td>Psychosocial Aspects of Deafness</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4460</td>
<td>Educational Audiology</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (8 credits minimum) 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 1151</td>
<td>American Sign Language I</td>
<td>3</td>
</tr>
<tr>
<td>CSD 1152</td>
<td>American Sign Language II</td>
<td>3</td>
</tr>
<tr>
<td>CSD 2251</td>
<td>American Sign Language III</td>
<td>3</td>
</tr>
<tr>
<td>CSD 2252</td>
<td>American Sign Language IV</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4405</td>
<td>Neuroscience for Communication Disorders</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

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. F

**SPED 3330 The Exceptional Child: 4 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. F

**SPED 3340 Principles of Behavior Management: 3 semester hours.**
Overview of basic principles of applied behavior analysis as it relates to educating children with disabilities. S

**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. F, S

**SPED 4423 Designing Instruction: 3 semester hours.**
Introduction to instructional design principles and strategies for engaging students in higher order thinking and problem-solving. Emphasis on teaching complex concepts in reading comprehension, writing, mathematics and other academic subjects. COREQ: SPED 4437. PREREQ: Admission to the Teacher Education Program. F

**SPED 4424 Assessment Procedures in Special Education: 3 semester hours.**
Introductory study of diagnostic assessment techniques and the writing of individual educational and behavioral prescriptions and instructional objectives which are required to provide interventions suitable for remediating the learning problems in basic school curricula. PREREQ: Admission to the Teacher Education Program. F

**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 Strategies: Severe Disabilities: 3 semester hours.**
Consideration and evaluation of curriculum materials from behavioral, developmental, and ecological perspectives. Emphasizes functional approach to development and implementation of individualized intervention plans. COREQ: SPED 4430 and SPED 4434. PREREQ: Admission to the Teacher Education Program. F

**SPED 4430 Practicum in Individualized Instruction: 1-3 semester hour.**
Requires 150 clock hours of field experience working with children with severe disabilities, developing and implementing individual instructional programs. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4429 and SPED 4434. F

**SPED 4432 Direct Instruction Systems: 3 semester hours.**
Provides mastery level skills training in direct instruction systems for reading, math, and written language. Includes field work, adaptation of curricula to direct instruction model and evaluation. COREQ: SPED 4435. PREREQ: Admission to the Teacher Education Program. S

**SPED 4433 The Emotionally Disturbed Child: 2 semester hours.**
Survey of the causes of emotional disturbance in children and the effects upon the child's school performance and achievement. School programs and treatment considerations will be reviewed. 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 language skills to children with disabilities. Focus on augmenting oral communication with both low and high technology applications, teaching expressive writing (e.g., spelling) skills using explicit instruction, and teaching receptive vocabulary using explicit instruction. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4429 and SPED 4430. F

**SPED 4435 Practicum in Small Group Instruction: 1-3 semester hour.**
Requires 150 clock hours of field experience working with children with disabilities, implementing small group instructional programs in reading and language, as well as developing transition plans for secondary students. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4432. S

**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. F

**SPED 4437 Practicum in Large Group Instruction: 3 semester hours.**
Requires 150 clock hours of field experience working with children with disabilities implementing large group instructional programs in mathematics and other content areas, with special emphasis on managing student behavior using positive behavior supports. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4423. F
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. S

SPED 4443 Autism: 3 semester hours.
An overview of autism and implications for educational planning. Teaching strategies that are successful in working with individuals who have autism will be reviewed. PREREQ: Admission to the Teacher Education Program. F

SPED 4446 Secondary Special Education: 3 semester hours.
Teaching methodology focusing on needs of secondary and adult special education students. Topics include functional academics, transition, independent living, social skills, professional-technical training, employment options, and accessing community resources. PREREQ: Admission to Teacher Education Program. S

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 hour.
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.
This course will provide candidates with strategies for working with paraeducators and other professional colleagues in educational settings. The focus of the course will be on providing training and feedback to paraeducators and effective strategies for teaming with other educators. PREREQ: Admission to the Teacher Education Program. S

SPED 4491 Seminar: 1-3 semester hour.
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: 7-14 semester hour.
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 hour.
Orientation, observation, planning and implementation of special education instruction in a special education setting in the public schools. PREREQ: Permission of instructor. D
Department of Sport Science and Physical Education

Faculty

Chair and Associate Professor
Fitzpatrick

Professors
Appleby
Lester
Lyons

Associate Professors
Faure
Gauthier
Meyers

Assistant Professors
Braun
Moffit

Associate Lecturers
Cordingley
Foster

Emeriti
Noakes
Watters

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 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.

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.

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.

The Department of Sport Science and Physical Education also offers two Masters 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.

Admission to Program

Admission to a major in physical education or any of the minors available in the department should be done as early as possible during the candidate’s career. Admission to the PE major is dependent upon completion of PE 2223 with a grade of C (2.0) or better, and a minimum cumulative GPA of 2.5.

2. Overall GPA of 2.5.
3. GPA of 2.7 in Professional Physical Education courses.
4. No grades below “C” (2.0) in Professional Physical Education courses completed.
5. Candidate portfolio initiation (PE 2223)
6. A student must meet with an advisor to verify eligibility for admission to the Sport Science and Physical Education Department.

Candidates must make formal application for full admission to the Sport Science and Physical Education program. Application forms are available in the department office. Candidates may not register without advisor’s approval for upper division courses until admittance to the program is achieved.

Denial of Admission to the Sport Science and Physical Education Major Program

Candidates who have been denied full admission to the Sport Science and Physical Education program may reapply; however, they must meet the standards for admission at the time of their reapplication to attain full admission.

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. 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

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:

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

Physical Education Emphasis Areas:
Exercise Science
Physical Education Teaching
Outdoor Education
Sport Management

Exercise Science Emphasis (77 credits, plus Core)
Objective #1: To develop foundational knowledge in the basic sciences (42 credits)
(Note: PE 2243 requirement in SSPE Core is satisfied by BIOL 3301, BIOL 3302, and labs.)

Biological Cognate: 11 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301 &amp; 3301L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4453</td>
<td>Foundations in Neuroscience</td>
<td>3</td>
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</table>

Chemistry Cognate: 9 credits

<table>
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<tr>
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<th>Title</th>
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<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1112 &amp; 1112L</td>
<td>General Chemistry II and General Chemistry II Lab</td>
<td>4</td>
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</tbody>
</table>

Physics Cognate: 8 credits

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</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1111 &amp; PHYS 1113 &amp; PHYS 1112 &amp; PHYS 1114</td>
<td>General Physics and General Physics I Laboratory and General Physics II and General Physics II Laboratory</td>
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</table>

Math Cognate: 11 credits

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<td>MATH 1143</td>
<td>College Algebra</td>
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<tr>
<td>MATH 1144</td>
<td>Trigonometry</td>
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<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
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<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
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</table>

(Each of the two courses above satisfies General Education Objective 3)

1. MATH 1147 Pre-calculus (5 cr) will substitute for MATH 1143 and MATH 1144.

Psychology Cognate: 3 credits

<table>
<thead>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
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</table>

Objective #2: To develop specialized knowledge in human movement activities (14 credits)

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PE 3301 &amp; 3301L</td>
<td>Physiology of Exercise and Physiology of Exercise Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>PE 3302 &amp; 3302L</td>
<td>Biomechanics and Biomechanics Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>PE 3322</td>
<td>Introduction to Sport Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Objective #3: To develop skills assessing and analyzing human movement activities (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3370</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>PE 4482</td>
<td>Mechanical Analysis of Human Movement</td>
<td>3</td>
</tr>
<tr>
<td>PE 4484</td>
<td>Exercise Assessment and Prescription</td>
<td>3</td>
</tr>
<tr>
<td>PE 4490</td>
<td>Practicum in Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Objective #4: To develop knowledge and skills in cognate exercise disciplines (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
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</table>

Electives, chosen with advisor approval 6

Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2221 &amp; 2221L</td>
<td>Introductory Microbiology and Introductory Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 2235 &amp; 2235L</td>
<td>General Microbiology and General Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 4460</td>
<td>Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td></td>
</tr>
<tr>
<td>HE 2210</td>
<td>Medical Terminology and Communication</td>
<td></td>
</tr>
<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs</td>
<td></td>
</tr>
<tr>
<td>NTD 4439</td>
<td>Sports Nutrition</td>
<td></td>
</tr>
<tr>
<td>PE 4427</td>
<td>Personal Trainer Certification</td>
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</tr>
<tr>
<td>PE 4494</td>
<td>Adapted Physical Activity</td>
<td></td>
</tr>
<tr>
<td>PSCI 2205</td>
<td>Drugs in Society</td>
<td></td>
</tr>
<tr>
<td>PSYC 2225</td>
<td>Child Development</td>
<td></td>
</tr>
<tr>
<td>PSYC 3301</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
</tbody>
</table>
Physical Education Teaching Emphasis (K-12 certification) - 41 credits (not including the Professional Education Core and the Physical Education Core Components)

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. 183) 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:

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2222</td>
<td>First Aid CPR and Sport Safety</td>
<td>3</td>
</tr>
<tr>
<td>PE 2223</td>
<td>Foundations of Physical Education and Sport</td>
<td>3</td>
</tr>
<tr>
<td>PE 2243</td>
<td>Anatomical Foundations of Human Activity</td>
<td>3</td>
</tr>
</tbody>
</table>

Objective #1: To develop teaching skills in a variety of areas in physical activities, athletics, and creative movement (20 credits)

Skills Component: 10 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2235</td>
<td>Activity Performance Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>PE 2236</td>
<td>Activity Performance Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>PE 2237</td>
<td>Activity Performance Techniques III</td>
<td>3</td>
</tr>
<tr>
<td>PE 2281</td>
<td>Practical Outdoor Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

Methods Component: 10 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3357</td>
<td>Methods of Teaching Elementary Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PE 3370</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>PE 4437</td>
<td>Methods of Teaching Secondary Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Objective #2: To acquire knowledge in the basic foundations of human activity (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PE 3303</td>
<td>Kinesiology for Teachers and Coaches</td>
<td>3</td>
</tr>
<tr>
<td>PE 3322</td>
<td>Introduction to Sport Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PE 4494</td>
<td>Adapted Physical Activity</td>
<td>3</td>
</tr>
</tbody>
</table>

Objective #3: To understand and develop skills required for teaching physical education (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3362</td>
<td>Tests and Measurements in Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PE 3364</td>
<td>Introduction to Sport Law</td>
<td>3</td>
</tr>
<tr>
<td>PE 4475</td>
<td>Organization and Administration of Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

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. 183) and Elementary (p. 196) and/or Secondary (p. 199) Education Core in this catalog.

Outdoor Education Emphasis -- 41 credits, plus 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3386</td>
<td>Outdoor Leadership</td>
<td>3</td>
</tr>
<tr>
<td>PE 4440</td>
<td>Survey of Outdoor Education Literature</td>
<td>3</td>
</tr>
<tr>
<td>PE 4445</td>
<td>Methods of Teaching Outdoor Activities and Practicum</td>
<td>3-4</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2271</td>
<td>Winter Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>PE 2272</td>
<td>Wilderness Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>PE 2282</td>
<td>Map Compass and Backcountry Navigation</td>
<td>1</td>
</tr>
<tr>
<td>PE 2283</td>
<td>Leave No Trace Trainer</td>
<td>1</td>
</tr>
<tr>
<td>PE 2285</td>
<td>Wilderness First Aid</td>
<td>1</td>
</tr>
<tr>
<td>PE 2286</td>
<td>Avalanche and Winter Sports Safety</td>
<td>1</td>
</tr>
<tr>
<td>PE 3381</td>
<td>River Safety and Swiftwater Rescue</td>
<td>1</td>
</tr>
<tr>
<td>PE 3383</td>
<td>Advanced Rock Climbing and Climbing Safety</td>
<td>2</td>
</tr>
<tr>
<td>PE 3384</td>
<td>Outdoor Risk Management and Liability</td>
<td>3</td>
</tr>
<tr>
<td>PE 4441</td>
<td>Wilderness First Responder Certification</td>
<td>3</td>
</tr>
</tbody>
</table>

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 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.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1102 &amp; 1102L</td>
<td>Biology II and Biology II Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2209 &amp; 2209L</td>
<td>General Ecology and General Ecology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2213</td>
<td>Fall Flora</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 2214</td>
<td>Spring Flora</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 3337</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4426 &amp; 4426L</td>
<td>Herpetology and Herpetology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4427 &amp; 4427L</td>
<td>Ichthyology and Ichthyology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4438</td>
<td>Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4441 &amp; 4441L</td>
<td>Mammalogy and Mammalogy Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4489</td>
<td>Field Ecology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1100L</td>
<td>The Dynamic Earth Lab</td>
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<tr>
<td>GEOL 1101</td>
<td>Physical Geology</td>
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<tr>
<td>GEOL 1101L</td>
<td>Physical Geology Lab</td>
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<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 2210</td>
<td>Earth in Space and Time</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4456</td>
<td>Geology of Idaho</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 4491</td>
<td>Seminar</td>
<td>1</td>
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<tr>
<td>PHYS 1152</td>
<td>Descriptive Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1153</td>
<td>Descriptive Astronomy Laboratory</td>
<td>1</td>
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<tr>
<td>PHYS 3325</td>
<td>Introduction to Weather and Climate</td>
<td>3</td>
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</table>

Option B: Outdoor Business Component (9 credits)
(Courses in this Option are waived for business related majors or minors.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 1110</td>
<td>The World of Business</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2225</td>
<td>Basic Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3303</td>
<td>Accounting Concepts</td>
<td>3</td>
</tr>
</tbody>
</table>

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.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PEAC 1101</td>
<td>Adaptive Snow Skiing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1108</td>
<td>Instructor Training of Adapted Snowskiing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1163</td>
<td>Backpacking</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1165</td>
<td>Backcountry GPS Navigation</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1166</td>
<td>Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1167</td>
<td>Kayak Touring</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1175A</td>
<td>Beginning Kayaking</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1176A</td>
<td>Beginning Rock Climbing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1177A</td>
<td>Beginning Cross-Country Skiing</td>
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<td>PEAC 1178A</td>
<td>Beginning Telemark Cross-Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1178B</td>
<td>Intermediate Telemark Cross-Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1181</td>
<td>Mountain Biking</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1182C</td>
<td>Advanced Dutch Oven Cooking</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1185</td>
<td>Basic Mountaineering</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1186B</td>
<td>Intermediate Fly Fishing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1189</td>
<td>Beginning Gym Climbing</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1191B</td>
<td>Intermediate Horsemanship</td>
<td>1</td>
</tr>
<tr>
<td>PEAC 1194</td>
<td>Caving Workshop</td>
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<tr>
<td>PE 2200</td>
<td>Team Building Leadership</td>
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</tr>
<tr>
<td>PE 2271</td>
<td>Winter Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>PE 2272</td>
<td>Wilderness Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>PE 2280</td>
<td>Winter Camping and Backcountry Travel</td>
<td>1</td>
</tr>
<tr>
<td>PE 2281</td>
<td>Practical Outdoor Skills</td>
<td>1</td>
</tr>
<tr>
<td>PE 2282</td>
<td>Map Compass and Backcountry Navigation</td>
<td>1</td>
</tr>
<tr>
<td>PE 2284</td>
<td>Intermediate Kayaking and Whitewater Safety</td>
<td>1</td>
</tr>
<tr>
<td>PE 2286</td>
<td>Avalanche and Winter Sports Safety</td>
<td>1</td>
</tr>
<tr>
<td>PE 2287</td>
<td>Snowboard Instructor Training</td>
<td>1</td>
</tr>
<tr>
<td>PE 2288</td>
<td>Ski Instructor Training</td>
<td>1</td>
</tr>
<tr>
<td>PE 3381</td>
<td>River Safety and Swiftwater Rescue</td>
<td>1</td>
</tr>
<tr>
<td>PE 3383</td>
<td>Advanced Rock Climbing and Climbing Safety</td>
<td>2</td>
</tr>
<tr>
<td>PE 4491</td>
<td>Physical Education Workshop</td>
<td>1-3</td>
</tr>
</tbody>
</table>

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.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMP 2201</td>
<td>Business and Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2202</td>
<td>Photo, Graphic, and Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2241</td>
<td>Introduction to Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>CMP 2251</td>
<td>Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3308</td>
<td>Groups and Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3339</td>
<td>Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2206</td>
<td>Creative Writing Workshop</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3308</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4432</td>
<td>U.S. Environmental History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4485</td>
<td>Historical Geography of National Parks</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4441</td>
<td>Organization Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PE 3322</td>
<td>Introduction to Sport Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PE 3364</td>
<td>Introduction to Sport Law</td>
<td>3</td>
</tr>
<tr>
<td>PE 3366</td>
<td>Sport Marketing</td>
<td>3</td>
</tr>
<tr>
<td>PE 4493</td>
<td>Introduction to Sport Sociology</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4455</td>
<td>Environmental Politics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4457</td>
<td>Grantwriting</td>
<td>3</td>
</tr>
</tbody>
</table>
Sport Management Emphasis -- 43 credits, plus Core

Objective #1: To understand and appreciate the physical education and sport setting (13 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.

Select TWO of the following: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2235</td>
<td>Activity Performance Techniques I</td>
</tr>
<tr>
<td>PE 2236</td>
<td>Activity Performance Techniques II</td>
</tr>
<tr>
<td>PE 2237</td>
<td>Activity Performance Techniques III</td>
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</tbody>
</table>

Additional Coursework (7 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2281</td>
<td>Practical Outdoor Skills</td>
</tr>
<tr>
<td>PE 3322</td>
<td>Introduction to Sport Psychology</td>
</tr>
</tbody>
</table>

Approved Electives 3

Possible Elective Choices:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
</tr>
<tr>
<td>PE 3301</td>
<td>Physiology of Exercise</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Physiology of Exercise Laboratory</td>
</tr>
<tr>
<td>PE 3302</td>
<td>Biomechanics</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td>and Biomechanics Laboratory</td>
</tr>
<tr>
<td>PE 3303</td>
<td>Kinesiology for Teachers and Coaches</td>
</tr>
<tr>
<td>PE 3357</td>
<td>Methods of Teaching Elementary Physical Education</td>
</tr>
<tr>
<td>PE 3362</td>
<td>Tests and Measurements in Physical Education</td>
</tr>
<tr>
<td>PE 3370</td>
<td>Care and Prevention of Athletic Injuries</td>
</tr>
<tr>
<td>PE 4437</td>
<td>Methods of Teaching Secondary Physical Education</td>
</tr>
<tr>
<td>PE 4493</td>
<td>Introduction to Sport Sociology</td>
</tr>
<tr>
<td>PE 4494</td>
<td>Adapted Physical Activity</td>
</tr>
</tbody>
</table>

Objective #2: To develop leadership and management skills (12 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3364</td>
<td>Introduction to Sport Law</td>
</tr>
<tr>
<td>PE 4473</td>
<td>Facilities Planning and Design</td>
</tr>
<tr>
<td>PE 4475</td>
<td>Organization and Administration of Physical Education</td>
</tr>
</tbody>
</table>

Approved Electives 3

Possible Elective Choices:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3386</td>
<td>Outdoor Leadership</td>
</tr>
<tr>
<td>POLS 4458</td>
<td>Public Administration Ethics</td>
</tr>
<tr>
<td>CMP 2201</td>
<td>Business and Professional Communication</td>
</tr>
<tr>
<td>CMP 3308</td>
<td>Groups and Communication</td>
</tr>
<tr>
<td>CMP 3320</td>
<td>Foundations of Leadership</td>
</tr>
<tr>
<td>CMP 4409</td>
<td>Communication Inquiry</td>
</tr>
<tr>
<td>CMP 4422</td>
<td>Conflict Management</td>
</tr>
<tr>
<td>CMP 4424</td>
<td>Management Communication</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3303</td>
<td>Accounting Concepts</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
</tr>
<tr>
<td>MGT 4473</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>or MGT 4441</td>
<td>Organization Behavior</td>
</tr>
<tr>
<td>PE 3366</td>
<td>Sport Marketing</td>
</tr>
</tbody>
</table>

Approved Electives 3

Possible Elective Choices:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2201</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>CMP 2241</td>
<td>Introduction to Public Relations</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>FIN 3315</td>
<td>Corporate Financial Management</td>
</tr>
<tr>
<td>MGT 2216</td>
<td>Business Statistics</td>
</tr>
<tr>
<td>MGT 2217</td>
<td>Advanced Business Statistics</td>
</tr>
<tr>
<td>MGT 2261</td>
<td>Legal Environment of Organizations</td>
</tr>
<tr>
<td>MGT 4441</td>
<td>Organization Behavior</td>
</tr>
<tr>
<td>MKTG 2225</td>
<td>Basic Marketing Management</td>
</tr>
<tr>
<td>MKTG 4427</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>POLS 4409</td>
<td>Community Planning</td>
</tr>
<tr>
<td>POLS 4441</td>
<td>Administrative Law</td>
</tr>
<tr>
<td>POLS 4442</td>
<td>Constitutional Law</td>
</tr>
<tr>
<td>POLS 4443</td>
<td>Civil Rights and Liberties</td>
</tr>
<tr>
<td>POLS 4451</td>
<td>Public Organizational Theory</td>
</tr>
<tr>
<td>POLS 4452</td>
<td>Budgeting and Finance</td>
</tr>
<tr>
<td>POLS 4454</td>
<td>Public Workplace Issues</td>
</tr>
<tr>
<td>POLS 4456</td>
<td>Labor Organization</td>
</tr>
<tr>
<td>POLS 4457</td>
<td>Grantwriting</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 4490</td>
<td>Practicum in Physical Education</td>
</tr>
</tbody>
</table>

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.

Required Courses (12 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):

Select four (4) credits:
- 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:
- PE 3300  Movement Theory and Motor Development
- PE 4475  Organization and Administration of Physical Education
- PE 4493  Introduction to Sport Sociology

Minor in Outdoor Education

Candidates seeking a minor in outdoor education must complete a total of 22 credits from the following four components:

Leadership and Teaching Component (9 credits):
- PE 3386  Outdoor Leadership  3
- PE 4440  Survey of Outdoor Education Literature  3
- PE 4445  Methods of Teaching Outdoor Activities and Practicum  3
  (Only 3 credits required for minors)

Outdoor Education Safety Component (5 credits):

Required Course
- PE 2283  Leave No Trace Trainer  1

Electives

Choose 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.

- BOL 1101  Biology I  4
  & 1101L  Biology I Lab  1
- BOL 1102  Biology II  4
  & 1102L  Biology II Lab  1
- BOL 2209  General Ecology  4
- BOL 2213  Fall Flora  2
- BOL 2214  Spring Flora  2
- BOL 3337  Conservation Biology  3
- BOL 4426  Herpetology  4
  & 4426L  Herpetology Lab  1
- BOL 4427  Ichthyology  4
  & 4427L  Ichthyology Lab  1
- BOL 4438  Ornithology  4
- BOL 4441  Mammalogy  4
  & 4441L  Mammalogy Lab  1
- BOL 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 1110  Physical Geology for Scientists Laboratory  1
- GEOL 2210  Earth in Space and Time  3
- GEOL 4456  Geology of Idaho  2
- GEOL 4491  Seminar  1
- PHYS 1152  Descriptive Astronomy  3
- PHYS 1153  Descriptive Astronomy Laboratory  1
- PHYS 3325  Introduction to Weather and Climate  3

Option B: Outdoor Business Component (3 credits)

(Courses in this option are waived for business related majors or minors.)

- 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.

- 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
Required Courses (21 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):

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 1-3
PE 4493 Introduction to Sport Sociology 3

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).

Physical Educ Activity 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. S

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. 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

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. No more than 32 credit hours of College of Business courses may be counted toward the minor in Sport Management. In addition, the candidate must show satisfactory completion of the ASEP Citizenship Through Sports Course.

Required Courses (21 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

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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 1133J Aerobics Cardio Jam: 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 1133K Aerobics Turbokick: 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 1133M 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 1133N 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 1133P 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 1133Q Interval Cross Training: 1 semester hour.  
Introduction to lifetime fitness programming components with individually-designed programs. Physiological self-assessments, safety, and equipment are covered. F, S

PEAC 1132 Individualized Physical Education: 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 putting, 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 skill 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 volleyball 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. Su

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

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

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 1183 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. PREREQ: 1186A or permission of instructor. 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 hour.
PEAC 2299 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

Physical Educ 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, S

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, S

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

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 safety. PREREQ: PE 2243.
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. F

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 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 3397 Professional Education Development: 1-3 semester hour.
A course for the practicing educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. A maximum of 10 credits may be applied to fifth year program. Graded S/U. D

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 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 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: Admision 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 hour.
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 hour.
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 hour.
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 hour.
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 hour.**
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 Introduction to Sport Sociology: 3 semester hours.**
Using the topics of youth, violence, gender, race/ethnicity, social class, media, and politics as a springboard, students will explore issues of social justice and diversity in sport and physical education settings. PREREQ: General Education Goal 1. F, 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 hour.**
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
Organizational Learning and Performance

Faculty

Chair and Professor
Scott

Assistant Professors
Jacobsen
Lindbeck
Lion

The Department of Organizational Learning and Performance (OL&P) offers courses to prepare students for a Bachelor of Science degree in Workplace Training and Leadership (WTL), including an optional concentration in Professional-Technical Education. Two master's degrees, a Master of Organizational Learning and Performance (M.OLP) and a Master of Education in Instructional Technology (MEd-IT) 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 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 Professional-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 PTE prefix) course and/or required course. A course grade of "D" or lower in any OLP or PTE prefix course and/or required course is unacceptable towards graduation and should be repeated.

For online information about this department and its programs, visit http://www.isu.edu/olp/.

Bachelor of Science Degree: 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. 47) 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 program prepares the student to analyze, design, develop, implement, and evaluate training in business and industry. The degree has been designed to recognize work experience competency and technical skill earned through a post-secondary technical program, the military, or continuing education evaluated by the American Council of Education Guide.

Minimum Requirements:

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<thead>
<tr>
<th>General education requirements for a BS Degree (minimum)</th>
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<td>Program Core</td>
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Required Courses:

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<th>CRN</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>OLP 3331</td>
<td>Theories and Models of Leadership</td>
<td>3</td>
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<td>OLP 4401</td>
<td>Foundations of Human Resource Development</td>
<td>3</td>
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<td>OLP 4402</td>
<td>Occupational Analysis and Course Construction</td>
<td>3</td>
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<td>OLP 4403</td>
<td>Methods of Training</td>
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<td>OLP 4404</td>
<td>Evaluating Training</td>
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<td>OLP 4407</td>
<td>Instructional Technology in Human Resource Development</td>
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<td>OLP 4409</td>
<td>Professional Readings and Writing in Human Resource Development</td>
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<td>OLP 4410</td>
<td>Principles of Change</td>
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<td>OLP 4431</td>
<td>Workplace Leadership</td>
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<td>OLP 4450</td>
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<tr>
<td>OLP 4465</td>
<td>Practicum in Workplace Training and Leadership (or Advisor Approved Course)</td>
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Electives:

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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP 2210</td>
<td>Competency-Based Equivalency I</td>
<td>12</td>
</tr>
<tr>
<td>OLP 2231</td>
<td>Introduction to Leadership</td>
<td>3</td>
</tr>
<tr>
<td>OLP 3310</td>
<td>Competency-Based Equivalency II</td>
<td>12</td>
</tr>
<tr>
<td>OLP 3320</td>
<td>Selected Topics</td>
<td>1-8</td>
</tr>
<tr>
<td>OLP 4405</td>
<td>Learning Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4406</td>
<td>Grantwriting</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4444</td>
<td>Ethics and Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4457</td>
<td>Facilitating Adult Learning</td>
<td>3</td>
</tr>
<tr>
<td>OLP 4461</td>
<td>Directed Studies</td>
<td>1-4</td>
</tr>
<tr>
<td>OLP 4464</td>
<td>Facilities Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Workplace Training and Leadership - Professional-Technical Teacher Education Option (WTL-PTE)

The Workplace Training and Leadership with a Professional-Technical Teacher Education (WTL-PTE) option prepares persons for instructional responsibilities in professional-technical education. The program includes content applicable to State of Idaho standards for Professional-Technical educators. It emphasizes teaching career and technical subject areas in secondary and post-secondary institutions.

Technical Specialization Coursework

Students enrolled in the WTL-PTE option may include in Electives coursework leading to a technical specialization in an occupational area recognized as a specialization offered in a post-secondary professional-technical system.

WTL-PTE Option Minimum Requirements:

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General education requirements for a BS Degree (minimum)</td>
<td>36</td>
<td></td>
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<tr>
<td>Option Core</td>
<td>33</td>
<td></td>
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<tr>
<td>Electives (including Technical specialization - maximum of 18 credits)</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>120</td>
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</tr>
</tbody>
</table>
OLP 2296 Independent Study: 1-8 semester hour. 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 hour. This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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 hour. 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 3397 Professional Educational Development: 1 semester hour. Credit, unique to the Workplace Training and Leadership - Professional-Technical Education Option majors, for technical competence acquired through verified post-secondary professional-technical, proprietary, or military education evaluated by review committee. Graded S/U. 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 Occupational 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. 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 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

Org Learning and Performance 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 hour. 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 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 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 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 hour.
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 hour.
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 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U, D

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. May be repeated. D

Professional Technical Ed Courses

PTE 4401 Foundations of Professional Technical Education: 3 semester hours.
Acquaints the student with the various aspects of professional-technical technical education: history, legislation, philosophy, and organization of professional-technical technical education. F, S, Su

PTE 4402 Occupational Analysis and Course Construction in Professional Technical Education: 3 semester hours.
Analysis of components of occupations to determine instructional content. Development of professional-technical technical education instructional materials based on performance objectives. F, S, Su

PTE 4403 Methods of Teaching in Professional Technical Education: 3 semester hours.
Teaching methods and techniques applicable to teaching in professional-technical education. F, S

PTE 4404 Evaluation in Professional Technical Education: 3 semester hours.
Designing and conducting formative and summative assessments and evaluations in professional-technical education. F, S

PTE 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. D

PTE 4444 Career Guidance and Special Needs Professional 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 PTE. D

PTE 4464 Professional Technical Education Instructional Facilities Management: 3 semester hours.
Organization, safety, and management of professional-technical education teaching facilities. An in-depth study of laboratory requirements and total facility planning. D
Division of Health Sciences

Faculty

Vice Provost and Executive Dean
Linda C. Hatzenbuehler, Ph.D.

Dean, College of Pharmacy
Paul S. Cady, Ph.D.

Associate Dean and Director, Kasiska School of Health Professions
Tracy Farnsworth, Ed.D.

Coordinator, Office of Medical and Oral Health
Kristin Calley, M.S.

Associate Dean and Director, School of Rehabilitation and Communication
Nancy Devine, D.P.T.

Dean, School of Nursing
Mary Nies, Ph.D.

Associate Dean
Linda Rankin, Ph.D.

Associate Dean for Clinical Research
Rex W. Force, Pharm.D.

Idaho State University’s Division of Health Sciences provides continued leadership in the delivery of health care by educating caring and competent professionals across all dimensions of health and promotes collaborative research and 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 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 nation to provide state-of-the-art training opportunities 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- and off-campus 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 require 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 Division of Health Sciences is organized into six units:

- Institute of Rural Health
- College of Pharmacy
- Kasiska School of Health Professions
- School of Nursing
- Office of Medical and Oral Health
- School of Rehabilitation and Communication Sciences

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 Department of Biological Sciences, Room 202 of the Life Sciences Building (Building #65 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: Becky Connell

Committee Members:
Curt Anderson, Ph.D., Biological Sciences
Ralph Baergen, Ph.D., English and Philosophy
Kori Bond, D.Mus., Music
Liz Cartwright, Ph.D., Anthropology
Karl DeJesus, Ph.D., Chemistry
Dana L. Diedrich, Ph.D., Biomedical and Pharmaceutical Sciences
Tracy J. Farnsworth, Ed.D., MHSA, MBA, Kasiska School of Health Professions
James R. Groome, Ph.D., Biological Sciences
Linda Hatzenbuehler, Ph.D., Division of Health Sciences
Margaret Johnson, Ph.D., English and Philosophy
Kathleen Kangas, Ph.D., Communication Sciences & Disorders
Dave Martin, MPAS, Physician Assistant Studies
Jeffrey Meldrum, Ph.D., Biological Sciences
Jean Pfau, Ph.D., Biological Sciences
Tony Seikel, Ph.D., Communication Sciences and Disorders
Allisha Weedon, Ph.D., Dietetics

Idaho Falls Campus:
Catherine Black, MS, Biological Sciences
Lyle W. Castle, Ph.D., Chemistry
Barbara Frank, Ph.D., Biological Sciences
Sharlene Jolley, MS, Chemistry

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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. 47):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
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<tr>
<td>BIOL 1102 &amp; 1102L</td>
<td>Biology II and Biology II Lab</td>
<td>4</td>
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<tr>
<td>BIOL 2206</td>
<td>Cell Biology</td>
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<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab</td>
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<td>CHEM 1112 &amp; 1112L</td>
<td>General Chemistry II and General Chemistry II Lab</td>
<td>4</td>
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<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td>3</td>
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<td>CHEM 3302</td>
<td>Organic Chemistry II</td>
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<td>CHEM 3303</td>
<td>Organic Chemistry Laboratory I</td>
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<td>CHEM 3304</td>
<td>Organic Chemistry Laboratory II</td>
<td>1</td>
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<td>ENGL 1101 or ENGL 1101P</td>
<td>English Composition or English Composition Plus</td>
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<td>Critical Reading and Writing</td>
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<td>PHYS 1111</td>
<td>General Physics</td>
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<td>PHYS 1112</td>
<td>General Physics</td>
<td>3</td>
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<tr>
<td>PHYS 1113 &amp; PHYS 1114</td>
<td>General Physics I Laboratory and General Physics II Laboratory</td>
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</tr>
<tr>
<td>PSYC 1101 or SOC 1101</td>
<td>Introduction to General Psychology or Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

(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.

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 25 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 underserved 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: http://depts.washington.edu/fammed/education/program/trust.

Cooperative Program with the University of Utah School of Medicine

Idaho residents are eligible to compete for 8 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.

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 (p. 310) section and Physician Assistant Studies (p. 303) 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).

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.

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.avmc.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 (AACP): 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.paeaoonline.org

Veterinary Medicine
- Association of American Veterinary Medical Colleges (AAVMC): http://www.avmc.org

Interprofessional Geriatric Certificate
To receive this certificate, the student would also be required to complete a bachelors or graduate degree from ISU concurrently.
DHS 4401 Mindfulness in Health Science: 1-2 semester hour.
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: 2 semester hours.
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 4417 Interdisciplinary Evaluation Team: 1 semester hour.

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 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Bachelor of Science in Health Science

The Bachelor of Science degree in Health Science is offered at ISU through the Division of Health Sciences and provides several pathways for students depending on their ultimate educational and career goals. The choice of four 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.

Bachelor of Science in Health Science

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. 47) 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>DHS 4426</td>
<td>Evidence Based Research in Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HE 2200</td>
<td>Promoting Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HE/HCA 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>or HO 0106</td>
<td>Medical Terminology</td>
<td></td>
</tr>
</tbody>
</table>

1 Transfer students may also need to take BIOL 1101 and BIOL 1101L, which may also partially satisfy General Education Objective 5.

2 Doctor of Pharmacy students fulfill the requirements of HO 2200, HE/HCA 2210, and DHS 4426 by completion of PHAR 9911, Introductory Pharmacy Practice Experience I, PHAR 9945, Pharmacy Practice Management, PHAR 9964, Pharmacotherapy IV, and PHAR 9942, Introduction to Pharmacy Practice II.

Professional Competencies (3 credits)³

Select ONE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 2215</td>
<td>Healthcare Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2230</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>

³ Doctor of Pharmacy students meet this core requirement by completion of PHAR 9945, Pharmacy Practice Management, and PHAR 9941 Introduction to Pharmacy Practice I.

Health Care (3 credits)⁴

Select ONE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3303</td>
<td>Economics of Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HCA 1115</td>
<td>US Health System</td>
<td>3</td>
</tr>
</tbody>
</table>

⁴ Doctor of Pharmacy students meet this core requirement by completion of PHAR 9931, Health Care Systems.

Communication (3 credits)⁵

Select ONE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 4409</td>
<td>Clinical Medical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>CMP 3308</td>
<td>Groups and Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMP 4422</td>
<td>Conflict Management</td>
<td>3</td>
</tr>
<tr>
<td>COUN 3300</td>
<td>Interpersonal Skills in Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4425</td>
<td>Patient Education Skills</td>
<td>2</td>
</tr>
</tbody>
</table>

⁵ Doctor of Pharmacy students meet this core requirement by completion of PHAR 9941, Introduction to Pharmacy Practice I, and PHAR 9906, Case Studies in Pharmacy I.

Diversity (0-3 credits)⁶

Each course in this group also fulfills 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.

Select ONE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 4409</td>
<td>Clinical Medical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>COUN 3300</td>
<td>Interpersonal Skills in Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>HE 4425</td>
<td>Patient Education Skills</td>
<td>2</td>
</tr>
</tbody>
</table>

⁶ Doctor of Pharmacy students meet this core requirement by completion of PHAR 9905, Introduction to Clinical Problem Solving, PHAR 9906, Case Studies in Pharmacy I, and PHAR 9907, Studies in Pharmacy II.

Concentration Requirements

Students must satisfy the requirements for one of the health science concentrations listed below. All graduates will be awarded a B.S. in Health Science, irrespective of which concentration is selected.

Concentration 1: Pre-Occupational Therapy

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.

See the Department of Physical and Occupational Therapy (p. 310) in the School of Rehabilitation and Communication Sciences in the Division of Health Sciences section of the catalog for detailed information about this concentration.

Required Courses
General Education Objectives (min 36 cr) 36
BS in Health Science Core 20-24
ANTH 2238 People and Cultures of the New World 3
BIOL 3302 Anatomy and Physiology & 3302L and Anatomy and Physiology Lab 4
CHEM 1111 General Chemistry I & 1111L and General Chemistry I Lab 5
ENGL 1101 English Composition or ENGL 1101P English Composition Plus 3-4
MATH 1153 Introduction to Statistics 3
PSYC 2225 Child Development 3
PSYC 3301 Abnormal Psychology I 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

Highly Recommended Electives:
ENGL 3307 Professional and Technical Writing 3
PHYS 1111 General Physics & PHYS 1113 and General Physics I Laboratory 4

Concentration 2: Pre-Occupational Therapy, Accelerated

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.

See the Department of Physical and Occupational Therapy (p. 310) in the School of Rehabilitation and Communication Sciences in the Division of Health sciences section of the catalog for detailed information about this concentration.

Required Courses:

General Education Objectives (min 36 cr) 36
BS in Health Science Core 20-24
Accelerated Occupational Therapy Concentration (46 cr) 1
ANTH 2238 People and Cultures of the New World (Satisfies General Education Objective 9) 3
BIOL 3302 Anatomy and Physiology & 3302L and Anatomy and Physiology Lab 4
CHEM 1111 General Chemistry I & 1111L and General Chemistry I Lab 5
(The two sets of courses above satisfy General Education Objective 5)

MATH 1153 Introduction to Statistics (Satisfies General Education Objective 3) 3
ENGL 1101 English Composition or ENGL 1101P English Composition Plus 3-4
PSYC 3301 Abnormal Psychology I 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

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)

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 4442Occupational Performance Laboratory 1

Concentration 3: Health Occupations

Students who have graduated or are enrolled in health occupations' training at the level of an associate degree have the opportunity to pursue a bachelor's degree with an advanced general health science focus when choosing this concentration. A B.S. in Health Science will satisfy many of the prerequisites for a variety of health science-related graduate programs.

See the Health Occupations' Department (p. 421) in the College of Technology section of the catalog for detailed information about this concentration.

The Bachelor of Science (BSHS) degree is offered at ISU through the Division of Health Science and provides several avenues for students to work in health-related professions depending upon the student's ultimate educational and career goals. Students graduating with an AAS or AS are provided the opportunity to apply their associate degree in a health-related field toward graduation requirements for the B.S. in Health Science and satisfy many of the prerequisites for a variety of health science-related graduate programs. The objective of the Bachelor of Science in Health Science program with the Health Occupations' emphasis 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. All students are encouraged to work closely with an advisor within their associate degree programs to ensure that the courses they plan to take will meet their specific career goals.

Degree Requirements:
The B.S. in Health Science degree with the Health Occupations' emphasis includes the following credit requirements which can be divided into four components: Associate Degree requirements, General Education requirements, B.S. in Health Science core requirements, and Associate degree/Health Occupations' Concentration requirements.

**Associate Degree Requirements:** Each student must be a graduate of or be enrolled in a health occupations' program that awards an associate degree.* Students with an Associate of Applied Science (AAS) degree may apply up to a maximum of 50 credits from this degree (all lower division credits) toward the 120 total credit requirement. Students with an Associate of Science (AS) degree in Respiratory Therapy from ISU may apply 15 upper division Respiratory Therapy (RESP) credits to this 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 Requirements:** Students pursuing the Bachelor of Science in Health Science degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 47) described in the Academic Information section of this catalog.) Specific requirements may be listed under individual Health Occupations' program curricula (choose programs above).

**BSHS Core Courses:** BSHS students across all ISU colleges and programs are required to complete a common core of 20-24 credits. See the Bachelor of Science in Health Science degree must be evaluated for currency in the technical field.

**BSHS Core Courses:** BSHS students across all ISU colleges and programs are required to complete a common core of 20-24 credits. See the Bachelor of Science in Health Science degree for the list of courses required for the Bachelor of Science degree in Health Science.

**Concentration 4: Health Science**

This concentration will prepare students for the challenges of becoming health care professionals in an era of changing focus and priorities. The variety and flexibility of coursework will equip graduates to pursue clinical, non-clinical, and educational opportunities in many settings. In addition to the courses required for the concentration listed below, students must also satisfy the Core Requirements for the Bachelor of Science degree in Health Science.

**Required Courses:**

**General Education Objectives**

**BS in Health Science Core**

**Select additional courses from the Professional Competencies, Health Care, Communication, and Diversity Core Areas.**

**Health Science Concentration:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 3350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3384</td>
<td>Human Resource Management in Healthcare Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NTD 3340</td>
<td>Nutrition for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PE 3370</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3301</td>
<td>Abnormal Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3341</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>RESP 3310</td>
<td>Case Management I</td>
<td>2</td>
</tr>
<tr>
<td>RESP 3325</td>
<td>Clinical Practice of Therapeutic Procedures II</td>
<td>3</td>
</tr>
<tr>
<td>RESP 2231</td>
<td>Patient Assessment I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; RESP 2232</td>
<td>and Patient Assessment II</td>
<td></td>
</tr>
<tr>
<td>SOC 3330</td>
<td>Sociology of Health and Illness</td>
<td>3</td>
</tr>
</tbody>
</table>

Students pursuing a non-teaching minor in Health Education should contact the Health Education and Promotion Program for details.

A student must fulfill 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 47) described in the Academic Information section of this catalog), BSHS Core requirements (20-24 credits), and Associate Degree Concentration requirements (25 credits minimum), and earn a minimum of 120 total credits, of which a minimum of 36 must be upper division credits, for a Bachelor of Science in Health Science degree.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3369</td>
<td>AIDS</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab</td>
<td>9</td>
</tr>
<tr>
<td>&amp; CHEM 1112 &amp; 1112L</td>
<td>and General Chemistry II and General Chemistry II Lab</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1101 &amp; 1102</td>
<td>Introduction to General Chemistry and Introduction to Organic and Biochemistry Laboratory</td>
<td>7</td>
</tr>
<tr>
<td>&amp; CHEM 1103</td>
<td>and Introduction to Organic and Biochemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 1111 &amp; 1111L</td>
<td>General Physics and General Physics I Laboratory</td>
<td>8</td>
</tr>
<tr>
<td>&amp; PHYS 1112 &amp; 1112</td>
<td>and General Physics II and General Physics II Laboratory</td>
<td></td>
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<tr>
<td>PHYS 1114</td>
<td>and General Physics II Laboratory</td>
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<tr>
<td>OR</td>
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<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics</td>
<td>4</td>
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<tr>
<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
<td>3</td>
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<tr>
<td>HE 3383</td>
<td>Epidemiology</td>
<td>3</td>
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<tr>
<td>RESP 2214</td>
<td>Introduction to Pulmonary Disease</td>
<td>4</td>
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<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
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<tr>
<td>BIOL 2235 &amp; 2235L</td>
<td>General Microbiology and General Microbiology Lab</td>
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<tr>
<td>or BIOL 2221 &amp; 2221L</td>
<td>Introductory Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>or BIOL 2206 &amp; 2207</td>
<td>Cell Biology and Cell Biology Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 1101 &amp; 1102</td>
<td>Introduction to General Chemistry and Introduction to Organic and Biochemistry Laboratory</td>
<td></td>
</tr>
</tbody>
</table>
**EMS Concentration Requirements:**

Associate of Science in Paramedic Science \(^1\)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>or CHEM 1111 General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 1111L</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 1112 General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 1112L General Chemistry II Lab</td>
<td></td>
</tr>
<tr>
<td>PHYS 1100 Essentials of Physics</td>
<td>3</td>
</tr>
<tr>
<td>or PHYS 1101 Elements of Physics</td>
<td></td>
</tr>
<tr>
<td>&amp; 1101L</td>
<td></td>
</tr>
<tr>
<td>or PHYS 1111 General Physics</td>
<td>3</td>
</tr>
<tr>
<td>&amp; PHYS 1113 General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>MATH 1153 Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 2216 Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>NTD 2239 Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>or NTD 3340 Nutrition for Health Professionals</td>
<td></td>
</tr>
<tr>
<td>PSYC 1101 Introduction to General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>HCA 1110 Introduction to the Allied Health Professions</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives** \(^1\) 12-14

**Total Hours** 118-122

1 In consultation with an advisor, careful selection should be made to meet the required 36 upper division credits.

**Concentration 5: Emergency Medical Services (EMS)**

This concentration will prepare students for the challenges of becoming Emergency Medical Services health care professionals in a time of increasing growth in the profession, expanding roles, and competing priorities. This baccalaureate degree is designed to provide Associate of Science degree graduates the opportunity to pursue a Bachelor of Science (BS) degree in health sciences and satisfy many of the prerequisites for a variety of health science-related graduate programs. This concentration has four tracks to choose from: Leadership/Management, Clinical, Education, and Community Paramedic. Choosing a specific track will prepare students to enter those types of assignments within the Emergency Medical Services profession. For more information about degree requirements, see the Bachelor of Science in Health Science (p. 238) section of this catalog.

**EMS Concentration Requirements:**

**Associate of Science in Paramedic Science** \(^1\)

<table>
<thead>
<tr>
<th>Course</th>
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<td>&amp; 1101L</td>
<td></td>
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<tr>
<td>or PHYS 1111 General Physics</td>
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</tr>
<tr>
<td>&amp; PHYS 1113 General Physics I Laboratory</td>
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<td>MATH 1153 Introduction to Statistics</td>
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<td>or MGT 2216 Business Statistics</td>
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<tr>
<td>NTD 2239 Nutrition</td>
<td>3</td>
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<td>or NTD 3340 Nutrition for Health Professionals</td>
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<tr>
<td>PSYC 1101 Introduction to General Psychology</td>
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<tr>
<td>SOC 1101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>HCA 1110 Introduction to the Allied Health Professions</td>
<td>3</td>
</tr>
</tbody>
</table>

**BS in Health Science Core** \(^2,3\) 20-24

Recommended courses within the Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 4475 Health Law and Bioethics (Professional/Diversity Competency)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3303 Economics of Health Care (Health Care Competency)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3307 Professional and Technical Writing (Communications Competency)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Emergency Medical Services Concentration** 18-21

**Required Courses (9-12 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 3300 Emergency Medical Services Operations and Management</td>
<td>3</td>
</tr>
<tr>
<td>EMS 3335 Emergency Medical Services Administration</td>
<td>3</td>
</tr>
<tr>
<td>EMS 4409 Emergency Medical Services Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives (minimum of 9 credits):** \(^4\)

Select elective credits from one of the tracks in the following table.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 3310 Development and Strategic Planning</td>
<td>3</td>
</tr>
<tr>
<td>EMS 3320 Disaster Response Planning and Management</td>
<td>3</td>
</tr>
<tr>
<td>HCA 2215 Healthcare Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3340 Healthcare Policy</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3384 Human Resource Management in Healthcare Organizations</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4453 Healthcare Finance</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4465 Healthcare Operations and Quality</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4475 Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221 Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410 Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4420 Health Program Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3303 Economics of Health Care</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3301 Incident Command System Advanced</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3305 Political and Policy Basis of Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3307 Social Dimensions of Disaster</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3308 Leading in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4420 Legal Issues in Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4421 Public Health Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3331 Community Risk Reduction for Fire and Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312 Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4405 Democracy and Governance</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4441 Administrative Law</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4454 Public Workplace Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

**Clinical Track** \(^5\)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 4465 Healthcare Operations and Quality</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4475 Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221 Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 3340 Fitness and Wellness Programs</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 3340L</td>
<td></td>
</tr>
<tr>
<td>and Fitness and Wellness Programs Laboratory</td>
<td></td>
</tr>
<tr>
<td>HE 3342 Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 3383 Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410 Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4420 Health Program Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HE 4425 Patient Education Skills</td>
<td>2</td>
</tr>
<tr>
<td>HE 4430 Curriculum and Methods in Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4432 Community and Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4435 Health Program Evaluation and Research</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3307 Social Dimensions of Disaster</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4420 Legal Issues in Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4421 Public Health Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3329 Political and Legal Foundations of Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3331 Community Risk Reduction for Fire and Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312 Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 2221 Introductory Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 2221L</td>
<td></td>
</tr>
<tr>
<td>and Introductory Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>BIOL 2235</td>
<td>General Microbiology and General Microbiology Lab</td>
</tr>
<tr>
<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
</tr>
<tr>
<td>BIOL 4432</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>BIOL 4445</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>&amp; 1111L</td>
<td>and General Chemistry I Lab</td>
</tr>
<tr>
<td>CHEM 1112</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>&amp; 1112L</td>
<td>and General Chemistry II Lab</td>
</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 3303</td>
<td>Organic Chemistry Laboratory I</td>
</tr>
<tr>
<td>PSYC 3301</td>
<td>Abnormal Psychology I</td>
</tr>
</tbody>
</table>

**Educational Track**<sup>5,7</sup>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 3310</td>
<td>Development and Strategic Planning</td>
<td>3</td>
</tr>
<tr>
<td>EMS 3320</td>
<td>Disaster Response Planning and Management</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 3340L</td>
<td>and Fitness and Wellness Programs Laboratory</td>
<td></td>
</tr>
<tr>
<td>HE 3342</td>
<td>Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HE 4430</td>
<td>Curriculum and Methods in Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4432</td>
<td>Community and Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4435</td>
<td>Health Program Evaluation and Research</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3307</td>
<td>Social Dimensions of Disaster</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4421</td>
<td>Public Health Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>

**Community Paramedic Track**<sup>8</sup>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 3410</td>
<td>Community Paramedic in the Health Care System</td>
<td>1</td>
</tr>
<tr>
<td>EMS 3420</td>
<td>Social Determinants of Health</td>
<td>1</td>
</tr>
<tr>
<td>EMS 3430</td>
<td>Public Health and Primary Care Role of the Community Paramedic</td>
<td>1</td>
</tr>
<tr>
<td>EMS 4310</td>
<td>Developing Cultural Competence</td>
<td>1</td>
</tr>
<tr>
<td>EMS 4320</td>
<td>Community Paramedic's Role within the Community</td>
<td>1</td>
</tr>
<tr>
<td>EMS 4330</td>
<td>Community Paramedic's Personal Safety and Wellness</td>
<td>1</td>
</tr>
<tr>
<td>EMS 4350</td>
<td>The Clinical Experience for the Community Paramedic</td>
<td>3</td>
</tr>
</tbody>
</table>

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1. Students must be a graduate of or be enrolled in a health-related program that awards an associate degree in Paramedic Science. Students with an Associate of Applied Science Degree in Paramedic Science may transfer up to a maximum of 50 credits from this degree (all lower division credits).
2. Only 14 credits are needed from the BS in Health Science Core if BIOL 3301 and HCA 2210/HE 2210 were completed during the Associate of Science degree.
3. Students must satisfy the Bachelor of Science in Health Science core requirements as listed in the Undergraduate Catalog and the requirements listed below for the Emergency Medical Services (EMS) concentration.
4. Electives should be chosen in consultation with advisor.
5. EMS students who take HE courses are required to take HE 2221 first.
6. BIOL 2221/BIOL 2221L, BIOL 2235/BIOL 2235L, BIOL 4432, and BIOL 4445 meet pre-requisite requirements for Master’s in Physician Assistant Studies.
7. Health Education Non-teaching Minor (21 credits) - available for those students with a Health Education focus (see specific HE course listings in the Health Education and Promotion (p. 273) section of the Undergraduate Catalog). This minor would meet the elective credits required for the degree.
8. Students must complete all courses within the Community Paramedic Track to be awarded the Community Paramedic designation.
Pharmacy

Faculty

College of Pharmacy
Dean
Paul S. Cady, PhD
Associate Dean
Catherine Cashmore, PharmD

Pharmacy Practice and Administrative Sciences
Chair and Associate Professor:
Owens

Professors:
Cady, Culbertson, Erramouspe, Force, Lott, Madaras-Kelly, Mason, Rhodes

Associate Professors:
Cashmore, Cleveland, Gould, Liday, Oliphant

Clinical Associate Professors:
Hefflinger, Pettinger, Pugmire

Clinical Assistant Professors:
Borzadek, Carr, Casperson, Eroschenko, Jantz, Steed-Ivie, Wadsworth

Visiting Research Professor:
Holmes

Visiting Clinical Assistant Professors:
Hayes, Hoover

Adjunct Faculty:
Johnston, Stander, Baker

Emeriti:
Adamcik, Galizia, Hurley, Joe, Sharp

Department of Biomedical and Pharmaceutical Sciences
Chair and Professor:
Diedrich

Professor:
Dodson, Lai

Associate Professor:
Bigelow

Assistant Professors:
Downing, Talley, Hevener

Visiting Assistant Professor:
Myers, Xu

Emeriti:
Daniels, Fontenelle, Isaacson

Adjunct Faculty:
Kator

College of Pharmacy

Idaho State University's College of Pharmacy is the oldest of the colleges on campus and offers the Doctor of Pharmacy (PharmD) degree via two pathways. The traditional four-year professional doctorate program can be completed in either Pocatello or Meridian, Idaho. Students may complete their fourth year at our clinical sites in Idaho (Boise, Pocatello, Coeur d’Alene) or at our site in Reno, Nevada. The nontraditional PharmD pathway is a distance learning option available for students holding a valid US or Canadian pharmacy license. For further information on the nontraditional PharmD Program, please visit: http://pharmacy.isu.edu/live/prospective/nont.html

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 highly capable pharmacists who positively impact the health care needs of people in our communities, the state, and nation. We are committed to the advancement of the pharmacy profession and the biomedical and pharmaceutical sciences through research, service, 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 traditional 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 of the previous semester 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. In addition, no student shall be allowed (on his or her transcript) more than two D grades in required professional courses both in and outside of the College. Policies adopted within these guidelines are provided to all students in the professional 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 of the ISU College of Pharmacy. This permission must be received prior to enrolling in the course.

Experiential Curriculum

Students must complete 310 hours of Introductory Pharmacy Practice Experiences (IPPE) during the first three years of the program. 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 at applying information and concepts learned in the classroom to the practice of pharmacy. Practice sites are assigned by the College. Site locations currently include southeast, southwest, and northern Idaho, and Reno, Nevada. 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.

During any APPE, students are required to complete a minimum of 45 hours of preparation and contact time for each one hour of academic credit. 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 with the Idaho State Board of Pharmacy 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 Indian 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. 47) 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 225 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 42 weeks (1,680 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.

Following completion of all requirements, candidates must pass the North American Pharmacist Licensure Examination (NAPLEX) and the Multistate Pharmacy Jurisprudence Examination (MPJE) 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.

All questions relative to externship training requirements and other qualifications for examination and licensure as a pharmacist in Idaho should be addressed to:

Licensing Specialist  
Idaho State Board of Pharmacy  
PO Box 83720  
Boise, ID 83720-0067  
(208) 334-2356

**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.

**Home Health Care** - Emphasizes the clinical, distributive, communicative and managerial aspects of providing a home health care service in the ambulatory patient environment.

**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 pathophysiology and therapeutics 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.

**Admission to the Doctor of Pharmacy Program Application**

Apply online at [http://pharmacy.isu.edu](http://pharmacy.isu.edu)

**Admission Criteria**

The recommended high school background for students planning to enter the preprofessional program at Idaho State University includes four units of mathematics and three units of natural science (biology, chemistry, and physics).

All of the preprofessional curriculum (with the exception of biochemistry) must be completed by the end of spring term of the year the applicant is applying for admission. In addition, the faculty encourages applicants to have a broad background in the arts, humanities and social sciences, as well as in the biological and physical sciences. Students should be competent in using word processing, spreadsheet and presentation software.

Applicants are strongly encouraged to obtain pharmacy experience prior to applying for admission to the Doctor of Pharmacy program. Pharmacy experience can be gained through shadowing, volunteering, or working in a paid position within a pharmacy.

To apply to the College of Pharmacy, a student must have a minimum cumulative grade point average (GPA) of 2.5 in all previous college academic courses. Admission is competitive; in recent classes, successful applicants had a cumulative GPA in excess of 3.0 with a class average of 3.6. Fulfillment of the specific requirements does not ensure admission to the Doctor of Pharmacy program. Idaho residents are given preference.

**Pre-Pharmacy Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1101L</td>
<td>and Biology I Lab (Partially satisfies General Education Objective 5)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2235</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 2235L</td>
<td>and General Microbiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td>and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
</tbody>
</table>
Evaluation of Students for Admission

Admission to the College of Pharmacy is limited to approximately 70 positions per class. Historically, there have been more applicants than available positions. This requires the faculty to select from among the applicants who will have the best opportunity to complete the curriculum and have productive professional lives. An invitation to schedule an on-campus interview is based upon the student’s academic ability and other required components of the pharmacy school application.

Students with international coursework to be considered with their applications must submit an official detailed evaluation report from an institution that is a member of the National Association of Credential Services Incorporated (NACSI).

International students must meet Idaho State University’s admission requirements for international students, which are shown at www.isu.edu/iso/admission.

Upon completion of interviews, applicants are placed into three categories:

1. admission,
2. reserve for possible admission pending available positions, or
3. no admission.

As positions become available, students in the reserve admission category will be notified of their selection for admission.

Admission Under Special Circumstances

Transfer from Other Schools of Pharmacy

Students wishing to transfer from another college of pharmacy are considered competitive with prepharmacy students and must present the following materials to the Associate Dean of the College of Pharmacy:

1. A letter from the dean of the College of Pharmacy previously attended certifying the program (BS in Pharmacy or PharmD) the student was matriculated in and status as to good academic standing;
2. An official transcript(s) showing that the prepharmacy requirements of Idaho State University have been completed and any pharmacy courses completed thus far;
3. A letter to the associate dean requesting evaluation of class standing.

Admission to Joint PharmD/MBA Program

Interested student applicants may be admitted to the MBA program at the end of the second professional year of the PharmD curriculum. Awarding of the MBA in this joint program requires successful completion of the PharmD degree. Students must meet regular admission requirements for the MBA program, except that they are required to have completed the equivalent of an undergraduate degree at the time of admission. Applicants 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 an undergraduate degree.
of residence. Prior to admission to the program, candidates must travel to Pocatello to complete an assessment process, which includes interviews, a writing assessment, and baseline evaluation of clinical skills.

Admissions Process

Apply online at http://pharmacy.isu.edu/live/nont/admissions.html

The application process consists of two phases:

Phase I - Submission of Documents

Students must submit the following documents to the College of Pharmacy at least four months prior to their intended enrollment date:

1. Completed application form.
2. Designated application fee.
3. Official transcripts of all college course work.
4. Proof of current licensure in one of the states or territories of the United States or Canada.
5. Three letters of recommendation – one from the applicant’s current supervisor or employer and two from professional colleagues.

Submission of the above documents does not ensure admission to the program. An assessment process will be initiated to review the documents. If the student meets the academic and professional assessment criteria, he or she will be encouraged to participate in Phase II of the application process.

Phase II - Assessment

Once the student has completed the first phase of the admissions process, a notice will be sent from the College to proceed with the second phase. The second phase contains two assessment activities:

1. Each student must schedule an on-campus interview. This will allow students to meet members of the faculty with whom they will be interacting throughout their studies and ask questions about the program. The interview will give faculty members an opportunity to meet each student and learn about their professional achievements and goals.
2. During the student’s visit to campus, he or she will be asked to complete a writing assessment and a knowledge base examination designed as a tool to assist both the student and the faculty in evaluating the student’s baseline knowledge of clinical pharmacy.

Doctor of Pharmacy

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 College of Pharmacy serves the state of Idaho. The Doctor of Pharmacy degree can be completed in either Pocatello or Meridian, Idaho. Students may complete their fourth year at our clinical sites in Idaho (Meridian, Pocatello, Coeur d’Alene) or at our site in Reno, Nevada.

The first professional year provides a foundation in the basic and pharmaceutical sciences that includes physiology, biochemistry, pharmacology and pharmaceutics. 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. Topics include cardiovascular, hepatic, hematology/oncology and endocrine. 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 or, at the student’s option, research 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHAR 9911</td>
<td>Introductory Pharmacy Practice Experience I</td>
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<tr>
<td>PHAR 9921</td>
<td>Biological Basis of Drug Actions I</td>
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<tr>
<td>PHAR 9921R</td>
<td>Biological Basis for Drug Actions I Recitation</td>
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<tr>
<td>PHAR 9924</td>
<td>Physiochemical Basis of Drug Action</td>
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<td>Physiochemical Basis of Drug Action Recitation</td>
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<tr>
<td>PHAR 9931</td>
<td>Health Care I</td>
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<tr>
<td>PHAR 9941</td>
<td>Introduction to Pharmacy Practice and Literature I</td>
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<tr>
<td>&amp; 9941L</td>
<td>and Pharmacy Practice and Literature I Lab</td>
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</tr>
<tr>
<td>PHAR 9949</td>
<td>Human Physiology I</td>
<td>4</td>
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<tr>
<td>&amp; 9949R</td>
<td>and Human Physiology I Recitation</td>
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<td>PHAR 9905</td>
<td>Introduction to Clinical Problem Solving</td>
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<tr>
<td>PHAR 9912</td>
<td>Introductory Pharmacy Practice Experience II</td>
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<td>Biological Basis of Drug Actions II</td>
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<td>PHAR 9923</td>
<td>Portfolio I</td>
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<tr>
<td>PHAR 9926</td>
<td>Basic Pharmaceutics and Calculations</td>
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</tr>
<tr>
<td>PHAR 9942</td>
<td>Introduction to Pharmacy Practice and Literature II</td>
<td>3</td>
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<tr>
<td>PHAR 9956</td>
<td>Human Physiology II</td>
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<td>&amp; 9956R</td>
<td>and Human Physiology II Recitation</td>
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<tr>
<td>PHAR 9906</td>
<td>Case Studies With Pharmacotherapy Lab I</td>
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<td>PHAR 9927</td>
<td>Dosage Form Design and Compounding Lab</td>
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<tr>
<td>PHAR 9927L</td>
<td>Dosage Form Design and Compounding Lab</td>
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<tr>
<td>PHAR 9961</td>
<td>Pharmacotherapy I</td>
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<tr>
<td>PHAR 9962</td>
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<tr>
<td>PHAR 9907</td>
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<td>PHAR 9913</td>
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<td>and Health Care II Lab</td>
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</tr>
<tr>
<td>PHAR 9963</td>
<td>Pharmacotherapy III</td>
<td>2-5</td>
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<tr>
<td>PHAR 9964</td>
<td>Pharmacotherapy IV</td>
<td>2-5</td>
</tr>
<tr>
<td>PHAR 9965</td>
<td>Pharmacotherapy V</td>
<td>2-5</td>
</tr>
<tr>
<td>PHAR 9966</td>
<td>Pharmacotherapy VI</td>
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<tr>
<td>PHAR 9908</td>
<td>Case Studies with Pharmacotherapy Lab III</td>
<td>2</td>
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<tr>
<td>PHAR 9945</td>
<td>Health Care III</td>
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<td>&amp; 9945L</td>
<td>and Health Care III Lab</td>
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<tr>
<td>PHAR 9967</td>
<td>Pharmacotherapy VII</td>
<td>2-5</td>
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<tr>
<td>PHAR 9968</td>
<td>Pharmacotherapy VIII</td>
<td>2-5</td>
</tr>
<tr>
<td>PHAR 9914</td>
<td>Introductory Pharmacy Practice Experience IV</td>
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</tbody>
</table>
Joint Doctor of Pharmacy/Master of Business Administration

The College of Business and College of Pharmacy at Idaho State University offer a joint PharmD/MBA program for students interested in earning both degrees. Students enrolled in the PharmD program may earn an MBA degree with approximately one summer and one year of additional course work.

The program is closely aligned with the PharmD curriculum with the following changes and requirements:

MBA 6613, MBA 6614, MBA 6615, and MBA 6616

These courses will satisfy six hours of electives required for the PharmD curriculum.

In addition, the completion of MBA 6612 (Human Behavior in Organizations) will substitute for the pharmacy management component of the Health Care sequence in the PharmD curriculum.

- During the two years of prepharmacy course work, the student should take:
  - ECON 2201 Principles of Macroeconomics (Partially satisfies General Education Objective 6) 3
  - ECON 2202 Principles of Microeconomics (Partially satisfies General Education Objective 6) 3
  - ACCT 2201 Principles of Accounting I 3
  - ACCT 2202 Principles of Accounting II 3

- During the third professional year in the PharmD program and the summer preceding that year, the student should take the following:
  - Throughout and following the professional PharmD program, the student must complete the second year of the MBA curriculum, which includes: MBA 6620, MBA 6621, MBA 6622, MBA 6623, MBA 6626, MBA 6628, MBA 6629, and MBA 6637

- Upon completion of all required MBA classes, students must complete the MBA oral exam.

Nontraditional Doctor of Pharmacy Program

The Nontraditional Doctor of Pharmacy (NonT) program at Idaho State University is designed for practitioners holding a Bachelor’s degree in pharmacy and a valid U.S. or Canadian pharmacy license who desire the opportunity to earn the PharmD degree without returning full-time to a college campus. The curriculum includes 37 credits of didactic course work that is taught using a combination of DVDs, interactive web-based case studies, detailed syllabi and textbooks. Each course has an assigned instructor who is available to students via telephone or e-mail for questions or assistance. Upon completion of the didactic portion of the NonT program, students must perform 18 weeks of on-site experiential training (i.e., Advanced Pharmacy Practice Experiences - APPEs) in various clinical pharmacy disciplines.

Dates to Begin the Program

The NonT program does not follow the usual academic calendar of the university. Students will be enrolled and initiate courses once official notification of admission has been received.

Requirements for Completion

To remain accredited by the Accreditation Council for Pharmacy Education (ACPE), the didactic portion of the program must be completed within 3.5 years of the admission date. This admission date is given to each student upon beginning the program.

Before beginning the experiential portion of the program, a second on-campus visit is required during which the student must complete a comprehensive examination of the didactic curriculum. A physical assessment practicum will also be offered at this time. Following successful completion of these evaluations, students will complete the practical experience requirements.

Every effort will be made to place each student in appropriate experiential training sites convenient to their residence; however, the right must be retained to assign a student to a site away from his/her residence if local accommodations are not available or will not meet the requirements specified by the program. Students may be required to complete their experiential training (APPEs) at sites in Idaho.

Curriculum for Non-Traditional Doctor of Pharmacy

The minimum didactic courses students will be required to complete are as follows:

- PDNT 9905 Introduction to Clinical Problem Solving 1
- PDNT 9918 Drug Literature Evaluation and Statistics 2
- PDNT 9938 Drug and Medical Informatics 1
- PDNT 9961 Pharmacotherapy I 2-4
- PDNT 9962 Pharmacotherapy II 2-4
- PDNT 9963 Pharmacotherapy III 2-4
- PDNT 9964 Pharmacotherapy IV 2-4
- PDNT 9965 Pharmacotherapy V 2-4
- PDNT 9966 Pharmacotherapy VI 2-4
- PDNT 9967 Pharmacotherapy VII 2-4
- PDNT 9968 Pharmacotherapy VIII 2-4
- PDNT 9969 Pharmacotherapy IX 2-4
- PDNT 9970 Pharmacotherapy X 2-4
- PDNT 9971 Pharmacotherapy XI Capstone with recitation (Capstone with recitation) 2-4

Total Hours 26-48

In addition to these didactic courses, students will be required to complete 18 weeks of advanced practical experiences (PDNT 9981). These include:

- Ambulatory Care 6 weeks
- Medicine 6 weeks
- Pharmaceutical Care 1 6 weeks

OR
The College permits waivers of one Advanced Pharmacy Practice Experience (APPE) based upon experience. If a student has extensive experience in one area, then a portfolio of patient write-ups may be submitted. If approved, this portfolio may replace one 6-week APPE.

**Bachelor of Science in Biochemistry**

Three departments - Biological Sciences, Chemistry, and Biomedical and Pharmaceutical Sciences - 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 in their career employments. Thus, both the employer and the student benefit directly from this educational experience.

The College permits waivers of one Advanced Pharmacy Practice Experience (APPE) based upon experience. If a student has extensive experience in one area, then a portfolio of patient write-ups may be submitted. If approved, this portfolio may replace one 6-week APPE.

**Core Requirements**

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. 47) 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 in Biological Sciences, Chemistry, 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.

<table>
<thead>
<tr>
<th>Course/Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab (Partially satisfies General Education Objective 5)</td>
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<tr>
<td>BIOL 1102 &amp; 1102L</td>
<td>Biology II and Biology II Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2235 &amp; 2235L</td>
<td>General Microbiology and General Microbiology Lab</td>
<td>4</td>
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<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3</td>
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<tr>
<td>BIOL 4437/CHEM 4438</td>
<td>Experimental Biochemistry</td>
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<tr>
<td>BIOL 4444 &amp; 4444L</td>
<td>Cell and Molecular Biology and Cell and Molecular Biology Lab</td>
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<tr>
<td>BIOL/CHEM 4445</td>
<td>Biochemistry I</td>
<td>3</td>
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<tr>
<td>BIOL/CHEM 4447</td>
<td>Biochemistry II</td>
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<td>BIOL/CHEM 4498</td>
<td>Seminar in Biochemistry</td>
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<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)</td>
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<td>CHEM 1112 &amp; 1112L</td>
<td>General Chemistry II and General Chemistry II Lab (Partially satisfies General Education Objective 5)</td>
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<tr>
<td>CHEM 2232 &amp; CHEM 2234</td>
<td>Quantitative Analysis and Quantitative Analysis Laboratory</td>
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<tr>
<td>CHEM 3301 &amp; CHEM 3303</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
<td>4</td>
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<tr>
<td>CHEM 3302 &amp; CHEM 3304</td>
<td>Organic Chemistry II and Organic Chemistry Laboratory II</td>
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<tr>
<td>CHEM 3341</td>
<td>Topics in Physical Chemistry</td>
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<tr>
<td>CHEM 3342</td>
<td>Topics in Physical Chemistry</td>
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<tr>
<td>MATH 1170</td>
<td>Calculus I (Satisfies General Education Objective 3)</td>
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<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
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<tr>
<td>PHYS 1111 &amp; PHYS 1113</td>
<td>General Physics and General Physics Laboratory (Partially satisfies General Education Objective 5)</td>
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<tr>
<td>PHYS 1112 &amp; PHYS 1114</td>
<td>General Physics II and General Physics II Laboratory (Partially satisfies General Education Objective 5)</td>
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<td>Additional General Education Requirements</td>
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<tr>
<td>An additional 5 credits from any college or department</td>
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<td>5</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>100</strong></td>
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</table>

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:**

<table>
<thead>
<tr>
<th>Course/Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301 &amp; 3301L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3304 &amp; 3304L</td>
<td>Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 3324 &amp; 3324L</td>
<td>Developmental Biology and Developmental Biology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4404 &amp; 4404L</td>
<td>Plant Physiology and Plant Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
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<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
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<tr>
<td>BIOL 4433</td>
<td>Microbial Physiology</td>
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<tr>
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<td>and Microbial Physiology Laboratory</td>
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<tr>
<td>BIOL 4434</td>
<td>Microbial Diversity</td>
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<td>and Microbial Diversity Lab</td>
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<tr>
<td>BIOL 4443</td>
<td>Endocrinology</td>
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<tr>
<td>BIOL 4449</td>
<td>Human Physiology I</td>
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<tr>
<td>BIOL 4451</td>
<td>Immunology</td>
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<td>and Immunology Laboratory</td>
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<tr>
<td>BIOL 4453</td>
<td>Foundations in Neuroscience</td>
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<td>BIOL 4456</td>
<td>Human Physiology II</td>
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<tr>
<td>BIOL 4461</td>
<td>Advanced Genetics</td>
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<tr>
<td>BIOL 4473</td>
<td>Applied and Environmental Microbiology</td>
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<td>and Applied Environmental Microbiology Lab</td>
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<td>BIOL 4475</td>
<td>General Virology</td>
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<td>BIOL 4477</td>
<td>Bacterial Virology Laboratory</td>
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<tr>
<td>or BIOL 4478</td>
<td>Animal Virology Laboratory</td>
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<td>BIOL 4481</td>
<td>Independent Problems max</td>
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<td>BIOL 4494</td>
<td>Seminar in Microbiology</td>
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**Courses in Chemistry:**

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<th>Course Title</th>
<th>Credits</th>
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<td>and Inorganic Chemistry I Laboratory</td>
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<tr>
<td>CHEM 3311</td>
<td>Introduction to Research</td>
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<td>and Introduction to Research</td>
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<td>CHEM 3331</td>
<td>Instrumental Analysis</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 3334</td>
<td>and Instrumental Analysis Laboratory</td>
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<tr>
<td>CHEM 3365</td>
<td>Synthetic Methods</td>
<td>4</td>
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<td>&amp; CHEM 3366</td>
<td>and Synthetic Methods Laboratory</td>
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<td>CHEM 4407</td>
<td>Inorganic Chemistry II</td>
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<td>CHEM 4433</td>
<td>Environmental Chemistry</td>
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<tr>
<td>&amp; CHEM 4437</td>
<td>and Environmental Chemistry Laboratory</td>
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<tr>
<td>CHEM 4453</td>
<td>Modern Experimental Physical Chemistry</td>
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<tr>
<td>CHEM 4481</td>
<td>Independent Problems max</td>
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<td>&amp; CHEM 4482</td>
<td>and Independent Problems</td>
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<tr>
<td>CHEM 4485</td>
<td>Senior Research</td>
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<tr>
<td>CHEM 4491</td>
<td>Seminar</td>
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**Courses in Mathematics:**

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<th>Course Title</th>
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<tbody>
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<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3</td>
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<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
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**Courses in Biomedical and Pharmaceutical Sciences:**

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSCI 2205</td>
<td>Drugs in Society</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 3301</td>
<td>Introduction to Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 3308</td>
<td>Drug Discovery</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 3353</td>
<td>Introduction to Methods in Pharmaceutical Sciences</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 4407</td>
<td>Pharmacogenomics</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 4408</td>
<td>Medicinal Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 4440</td>
<td>Fundamentals of Nanoscience</td>
<td>3</td>
</tr>
</tbody>
</table>

1. Prerequisites include CHEM 2211, CHEM 2213, CHEM 3351, and CHEM 3352.
2. Prerequisites include CHEM 3334, CHEM 3351, and CHEM 3352.

**Minor in Pharmaceutical Sciences**

The minor in Pharmaceutical science helps students to prepare for careers in biomedical research and/or pharmaceutical industry.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 2205</td>
<td>Drugs in Society</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 3301</td>
<td>Introduction to Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 3353</td>
<td>Introduction to Methods in Pharmaceutical Sciences</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 4438</td>
<td>Pharmaceutical Science Research</td>
<td>2</td>
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</tbody>
</table>

In addition, the student must take a minimum of 9 additional elective credits from the list below of elective courses.

**Total Hours:** 18

**Elective courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 3308</td>
<td>Drug Discovery</td>
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<td>PSCI 3368</td>
<td>Introduction to Toxicology</td>
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<td>PSCI 4402</td>
<td>Immunopharmacology</td>
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<td>Infectious Diseases and Natural Products</td>
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<td>PSCI 4404</td>
<td>Pulmonary and Cardiac Pharmacology</td>
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<td>Cancer Biology</td>
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<td>Anti-cancer Drugs</td>
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<td>Physical Pharmaceutics</td>
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<tr>
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**Doctor of Pharmacy Graduation Requirements**

**First Professional Year (P-1) Curriculum**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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**Total Hours:** 37
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

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Total Hours: 26-44

Third Professional Year (P-3) Curriculum

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Total Hours: 21-36

Electives

Electives (may be taken in any semester) 6

Total Hours 6

Fourth Professional Year (P-4) Curriculum

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<tr>
<td>PHAR 9981</td>
<td>Advanced Pharmacy Practice Experience (49 total credits) 1</td>
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<td>PHAR 9982</td>
<td>Professional Student Seminar 1</td>
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Total Hours 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  Medicine - 6 weeks  Pharmaceutical Care Emphasis - 12 weeks (Students are assigned two experiences, each 6 weeks in length, from an approved list of specialty pharmacy practice sites providing a high level of pharmaceutical care. A maximum of 12 weeks of experience is allowed in any specialty practice area.)  Elective - 6 weeks  TOTAL: 42 weeks

Total for Doctor of Pharmacy Degree, including a minimum of 6 elective credits: 228

BioMed and Pharmacy Sci 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: 3 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 4414 Women's Health Issues: 3 semester hours.
This course will cover medical, pharmacological and societal aspects of women's health issues, including risk for various diseases and effectiveness of treatments using a multidisciplinary approach involving several health care practitioner faculty. Issues particular to women will be emphasized. PREREQ: 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 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 4445 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 hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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

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 9939 Topics in Pharmaceutical Sciences: 1-4 semester hour.
An examination of selected topics in pharmaceutical sciences. Restricted to PHARM.D. program. D
Non-Traditional PharmD Courses

PDNT 9905 Introduction to Clinical Problem Solving: 1 semester hour.
An integrated case study format emphasizing the development of quality assurance concepts, physical assessment skills, and clinical problem-solving abilities related to the diagnosis, resolution and prevention of drug-related problems. PREREQ: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9918 Drug Literature Evaluation and Statistics: 2 semester hours.
The fundamentals of experimental design, implementation and data analysis pertinent to pharmaceutical clinical investigations. PREREQ: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9938 Drug and Medical Informatics: 1 semester hour.
Advanced course in retrieving, analyzing, and evaluating medication-related information from the literature. PREREQ: Enrollment in the Nontraditional Pharm.D. program F, S, Su

PDNT 9961 Pharmacotherapy I: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9962 Pharmacotherapy II: 2-semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9963 Pharmacotherapy III: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9964 Pharmacotherapy IV: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9965 Pharmacotherapy V: 2-semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9966 Pharmacotherapy VI: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9967 Pharmacotherapy VII: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9968 Pharmacotherapy VIII: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9969 Pharmacotherapy IX: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9970 Pharmacotherapy X: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9971 Pharmacotherapy XI Capstone with recitation: 2-4 semester hour.
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: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9999 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

Pharmacy Practice 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 3333 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 hour.
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 hour.
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 hour.

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 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 Courses

PHAR 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 didactic and competency-based experiential training in an approved pharmacy practice setting to be initiated during the summer prior to the fall of the first professional year. Graded S/U. D

PHAR 9912 Introductory Pharmacy Practice Experience II: 1 semester hour.
A competency-based experiential training in an approved community and institutional pharmacy practice setting to be completed prior to the beginning of the second professional year. Graded S/U. PREREQ: PHAR 9911. COREQ: First professional year. S

PHAR 9913 Introductory Pharmacy Practice Experience III: 1 semester hour.
Forty hours of competency-based experiential training in an approved pharmacy practice setting or voluntary service activity to be completed prior to the start of the third professional year. Graded S/U. PREREQ: PHAR 9912. S

PHAR 9914 Introductory Pharmacy Practice Experience IV: 1 semester hour.
Forty hours of competency-based experiential training in an approved pharmacy practice setting or voluntary service activity to be completed prior to the start of the fourth professional year. Graded S/U. PREREQ: PHAR 9913. S

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 for Drug Actions I: 3 semester hours.
Basic concepts in pharmacology. PREREQ: First professional year. F

PHAR 9921R Biological Basis for Drug Actions I Recitation: 0 semester hours.
Recitation for PHAR 9921. F

PHAR 9922 Biological Basis of Drug Actions II: 5 semester hours.
Basic concepts in Pharmacology. PREREQ: First professional year. S

PHAR 9923 Portfolio I: 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: First professional year. S

PHAR 9924 Physiochemical 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 and PHAR 9924R. F

PHAR 9924R Physiochemical Basis of Drug Action Recitation: 0 semester hours.
Recitation for PHAR 9924. F

PHAR 9926 Basic Pharmaceutics and Calculations: 3 semester hours.
Fundamentals of physical pharmacy, mathematics associated with drug dispensing and pharmacokinetic principles applicable to the design of rational dosage regimens. PREREQ: PHAR 9924. 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 Portfolio II: 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: 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 Portfolio 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: 4 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: 0 semester hours.
Communication skills, multicultural awareness, and application of quality assurance methods. Application of principles of pharmacoeconomic and humanistic outcomes research to the evaluation of patient-centered care and the marketing and delivery of medication therapy management. COREQ: PHAR 9944. 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 pharmacoeconomic 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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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 hour.
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.

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
Department of Counseling

Faculty

Chair and Professor
Kleist

Associate Professors
Crews
Horn
Paulson

Assistant Professors
Astramovich
Coe Smith
Moody
Stewart
Yates

Clinical assistant professor
Singarajah

Adjunct Faculty
Bennett
Bolinger
Boyes
Erickson
Harris
Henderson
Millican
Niece
Schmidt
Thompson
Tivis

Emeriti
Allen
Edgar
Feit
Lloyd

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; 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 hall and career centers.

We prepare doctoral level counselor educators and supervisors to serve as faculty members in counselor education programs, counselor supervisors in various settings, doctoral level counselors, leaders in higher education and counseling organizations, and scholars.

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
- 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 College of Health Professions (KCHP), which is to represent the mental health perspective within KCHP and to consult with KCHP 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 also 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.

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 and 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-wide 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 the appropriate state licensure as professional counselors.
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 4491, 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.).

Accreditation

The program for school counselor preparation is accredited by the State of Idaho, the Counselor Education programs approved by the Council for Accreditation of Counseling and Related Educational Programs are as follows: 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.).

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 Kasiska School of Health Professions within the Graduate Catalog (http://coursecat.isu.edu/graduate), or visit the department’s website at: www.isu.edu/hpcouns/.

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. PREREQ: Permission of instructor. F, S

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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 4491 Seminar: 1-3 semester hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content
Dietetics

Faculty

Director and Clinical Associate Professor
McKnight

Professor
Rankin

Associate Professor
Blanton

Clinical Associate Professor
Schneider

Assistant Professor
Weeden

Emerita
Dundas

The Dietetics Program offers a baccalaureate degree in dietetics and postgraduate dietetic internships.

Bachelor of Science in Dietetics

Didactic Program in Dietetics

The mission of the Didactic Program in Dietetics (DPD) program at Idaho State University is to provide courses for students to earn a Baccalaureate degree which prepares students to enter into, and to successfully complete, an accredited dietetic internship.

The philosophy of the Idaho State University Dietetics Program has been, since its inception, to educate individuals through didactic training and practical experiences in the field of dietetics, and to develop visionary and competent individuals who will be able to understand and to solve complex problems encountered by the professional dietitian. Practical experiences are incorporated in both lecture and laboratory courses in medical nutrition therapy, food service systems management, and community nutrition.

Prospective students should schedule a conference with the program director. The requirements of the program, curriculum, supervised practice experience, and registration examination are explained to prospective and current students in the program.

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 Dietetic Internship. The graduate must complete a dietetic internship prior to becoming eligible to take the National Registration Exam for Dietitians.

NOTE: Enrollment in the Idaho State University Didactic Program in Dietetics and/or fulfillment of specific requirements does NOT ensure admission into the Dietetic Internship Program.

Program Goals and Outcome Measures

The following goals and outcome measures were identified in the 2013 Program Assessment Report. These goals and outcome measures reflect the mission and philosophy of the Idaho State University DPD and are the basis for program evaluation and effectiveness.

Program Goal One: Prepare students to perform competently in a dietetic internship (DI) in preparation to be an entry-level dietitian.

Outcome Measures

- 65% of DPD graduates will apply to a supervised practice program within 12 months of graduation.
- 50% of DPD graduates who apply to a supervised practice program will be accepted to a supervised practice program within 12 months of graduation.
- 80% of graduates will pass the registration exam on the first attempt.
- 90% of graduates will pass the registration exam after one year.
- 90% of responding graduates will indicate a “good” response or better that the DPD program prepared them for their supervised practice experience and career as a Registered Dietitian (RD).
- 75% of graduates who have finished their supervised practice experience and are seeking employment will be employed within 1 year of passing the RD exam.
- 80% of graduates from this program will receive “good” ratings or higher on their knowledge and skill of dietetics from their employer or supervised practice program director.
- 90% of students accepted to the DPD will graduate within 3 years of acceptance into the 2 year professional portion of program.

Program Goal Two: Provide didactic and field experiences for students by continuing cooperative relationships with community, clinical and foodservice management dietitians, other health care professionals and administrators in order to prepare graduates to work in the current health-care environment and in industry.

Outcome Measures

- Students will be assigned learning experiences in a minimum of two different experiential sites for both foodservice, community courses and one experiential site for medical nutrition therapy courses.
- 90% of responding graduates will indicate “good” or better that the DPD program prepared them for their supervised practice experience and career as a dietitian.
- 90% of graduates from this program will receive “good” ratings or higher from their employer or supervised practice program director.
- 1/3 of Dietetic Advisory Committee members will consist of external constituents and/or preceptors from facilities providing learning experiences to dietetic students.
- 20% of graduates will seek advanced degrees.
- 10% of graduates will have a leadership role in a professional organization within 5 years of 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 2000, Chicago, IL 60606-6995, (800) 877-1600). Students completing their B.S. degree are eligible to apply for dietetic internships.

Dietetic Internship (DI) Program

The mission of the ISU Dietetic Internship Program is to provide a supervised postgraduate practical experience that exceeds the performance requirements of the Accreditation Council for Education in Nutrition and Dietetics, which prepares interns for successful completion of the registration exam and entry-level practice.
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 National Registration Exam for Dietitians.

The following goals and outcome measures were identified in the 2013 Program Assessment Report. 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 Outcomes**

**Program Goal #1: Prepare interns to become professionally competent registered dietitians through a comprehensive supervised practice experience.**

**Outcome measures:**
- 90% of interns will complete the program.
- 90% of interns who complete the program will take the exam within 1 year of completion.
- 90% of interns who take the RD exam will pass on the first time.
- Mean registration exam scores will be greater than or equal to the national average.
- 90% of working RD’s will be satisfied that the DI program adequately prepared them for careers in dietetics.
- 90% of RD’s will receive satisfactory ratings from employers.

**Program Goal #2: Develop effective and self-reliant professionals who are committed to lifelong learning**

**Outcome Measures:**
- Interns will rate the session on CDR Professional Development Portfolio as useful or higher greater than or equal to 80%.
- 10% of the alumni will seek graduate degrees, obtain specialty certification, or have a leadership role in a professional organization.

**Program Goal #3: Provide ongoing education and communication with preceptors to enhance quality of professional practice in Idaho.**

**Outcome Measures:**
1. Offer a minimum of 1 session of continuing education units (CEU) to preceptors each year.
2. 90% of preceptors will feel valued by ISU faculty.
3. 90% of preceptors feel they gain valuable information by being a preceptor.

**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 district, 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 go through 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 Tuesday through Friday; Monday is 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, 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).

**Bachelor of Science in Dietetics**

**Admission Requirements:**

1. Accumulative GPA of 3.0 or above on a 4.0 scale.
2. Completion of required courses listed under pre-dietetics with no course grade lower than a C in any of the following classes:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>Introduction to Organic and Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1103</td>
<td>Introduction to General Organic and Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
<td>4</td>
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<td>BIOL 2221</td>
<td>Introductory Microbiology</td>
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<td>BIOL 2221L</td>
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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
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</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
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<tr>
<td>ENGL 1101P</td>
<td>English Composition Plus</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>NTD 1104</td>
<td>Foods</td>
<td>3</td>
</tr>
<tr>
<td>NTD 2204</td>
<td>Meal Management</td>
<td>2</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
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</tbody>
</table>

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. 47) described in the Academic Information section of this catalog.

Students may apply to the professional component of the Didactic Program in Dietetics (DPD) only in the spring semester once requirements are met. Appointments are awarded to begin the following fall semester. Requirements for the DPD include: a 3.0 accumulative grade-point-average or above; completion
of several of the ISU General Education requirements including several basic sciences and English; pre-requisite food and nutrition courses.

Application Process:

Students may apply to the professional component of the DPD only in the spring semester once requirements are met. Applicants must complete the DPD application, write a letter of application, and include an application fee of $20. In addition, 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. Applications will not be reviewed until all application materials have been received. The application deadline is February 15th.

Application should include the following:

1. A completed DPD application form available on program website at http://www.isu.edu/hns/dietetics/.
2. Official sealed transcripts from all colleges and universities other than ISU (see conditions above).
3. A typed letter of application stating reasons for selected dietetics as a career and professional goals.
5. Put all materials together in one large envelope and send to the address below.

NOTE: Students accepted into the dietetics program must start the hepatitis B series shots and TB screening. This can be done by the Student Health Center, a private physician, or a clinic. Students under 35 must submit proof of updated and acceptable MMR vaccines (Mumps, Measles, and Rubella.) Students will also be required to complete a background check prior to beginning community based rotations.

Applications should be sent to:

Laura McKnight, MPH, RD, LD
Director, Dietetic Programs
Kasiska School of Health Professions
Idaho State University
921 S. 8th Ave. Stop 8117
Pocatello, ID 83209-8117

Dietetic Internship (DI) Program

Program Eligibility and Admission:

1. Candidates must have a Bachelor of Science degree in Dietetics, Family and Consumer Sciences (Home Economics), or Food and Nutrition and have completed Didactic Program in Dietetics requirements as established by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 S. Riverside Plaza, Suite 2000, Chicago, Illinois, 60606-6995. Phone: 800-877-1600.
2. A minimum grade point average of 3.00 is required for admission.
3. Sixteen (16) students, eight (8) in Pocatello and eight (8) in Meridian, will be admitted to the program with the April computer match, with a start date in August.

NOTE: Enrollment in the Idaho State University Didactic Program in Dietetics and/or fulfillment of specific requirements does not ensure admission into the Dietetic Internship Program.

New students are admitted to the Dietetic Internship Program for the fall semester. Candidates should submit all application materials no later than February 15th for admission the following Fall semester. Application information and instructions can be obtained from the Dietetic Internship website at http://www.isu.edu/hns/dietetics/dietetic-internship-apply.shtml. A $50 non-refundable fee will be charged for processing applications.

Send Pocatello Application to:

Laura McKnight, MPH, RD, LD
Director, Dietetic Programs
Kasiska School of Health Professions
Idaho State University
921 S. 8th Ave. Stop 8117
Pocatello, ID 83209-8117

Send Meridian Application to:

Ruth Schneider, MPH, RD, LD
Idaho State University - Meridian
1311 E Central Dr.
Meridian, ID 83642

Bachelor of Science in Dietetics

Pre-Dietetics Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1101L</td>
<td>and Biology I Lab</td>
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<tr>
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<td>Introductory Microbiology</td>
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<td>and Introductory Microbiology Laboratory</td>
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<td>and Anatomy and Physiology Lab</td>
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<td>Anatomy and Physiology</td>
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<td>&amp; 3302L</td>
<td>and Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>&amp; CHEM 1103</td>
<td>and Introduction to General Organic and Biochemistry Laboratory</td>
<td>4</td>
</tr>
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<td>COMM 1101</td>
<td>Principles of Speech</td>
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</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1101P</td>
<td>English Composition Plus</td>
<td></td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>MATH 1108</td>
<td>Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>NTD 1101</td>
<td>Introduction to Dietetics</td>
<td>1</td>
</tr>
<tr>
<td>NTD 1104</td>
<td>Foods</td>
<td>3</td>
</tr>
<tr>
<td>NTD 2204</td>
<td>Meal Management</td>
<td>2</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Didactic Program in Dietetics Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3303</td>
<td>Accounting Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>NTD 3300</td>
<td>Medical Nutrition Therapy I</td>
<td>3</td>
</tr>
<tr>
<td>NTD 3300L</td>
<td>Medical Nutrition Therapy I Lab</td>
<td>2</td>
</tr>
<tr>
<td>NTD 3301</td>
<td>Medical Nutrition Therapy II</td>
<td>3</td>
</tr>
</tbody>
</table>
In addition: Electives to total 120 credits. See advisor regarding class sequencing.

**Dietetic Internship (DI) Program**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTD 4486</td>
<td>Dietetic Internship Seminar I</td>
<td>6</td>
</tr>
<tr>
<td>NTD 4487</td>
<td>Dietetic Internship Seminar II</td>
<td>6</td>
</tr>
<tr>
<td>NTD 4488</td>
<td>Internship in Dietetics I</td>
<td>11</td>
</tr>
<tr>
<td>NTD 4489</td>
<td>Internship in Dietetics II</td>
<td>11</td>
</tr>
</tbody>
</table>

A $1,350.00 course fee will be applied in addition to tuition for each NTD 4488 and NTD 4489.

**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 1104 Foods: 3 semester hours.**
Fundamental processes underlying food preparation with emphasis on the chemical and physical properties of foods. Lecture and laboratory. F

**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. F, S

**NTD 1199 Experimental Course: 1-6 semester hour.**
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

**NTD 2204 Meal Management: 2 semester hours.**
Management of money, time, and energy for the selection, preparation, and service of nutritious meals to fit current lifestyles. Lecture and laboratory. PREREQ: NTD 1104. 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. PREREQ: CHEM 1101; CHEM 1102 recommended. Partially satisfies Objective 5 of the General Education Requirements. F, S

**NTD 3300 Medical Nutrition Therapy I: 3 semester hours.**
Medical nutrition therapy for the prevention and treatment of diseases including obesity, eating disorders, diseases of the liver and gastrointestinal tract, cardiovascular disease and diabetes mellitus. PREREQ: Acceptance into Didactic Program in Dietetics. COREQ: NTD 3300L. F

**NTD 3300L Medical Nutrition Therapy I Lab: 2 semester hours.**
Introduction to the profession of dietetics and medical nutrition therapy. Development of nutrition assessment skills, care plans and modified diet writing. PREREQ: Acceptance into Didactic Program in Dietetics. COREQ: NTD 3300. F

**NTD 3301 Medical Nutrition Therapy II: 3 semester hours.**
Medical nutrition therapy in treatment of neurological and metabolic disorders, enteral and parenteral nutrition, HIV/AIDS, renal, pulmonary, neoplastic diseases, food allergies and intolerance. PREREQ: NTD 3300 and NTD 3300L. COREQ: NTD 3301L. S

**NTD 3311L Medical Nutrition Therapy II Lab: 2 semester hours.**
Medical nutrition therapy in treatment of neurological and metabolic disorders, enteral and parenteral nutrition, HIV/AIDS, renal, pulmonary, neoplastic diseases, food allergies and intolerance. PREREQ: NTD 3300 and NTD 3300L. COREQ: NTD 3311. S

**NTD 3312 Quantity Foods: 2 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. Two hours lecture. PREREQ: NTD 1104 and NTD 2204. 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 3360L Nutrition Through the Lifecycle Laboratory: 1 semester hour.**
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 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 hour.**
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 Food Service Systems Management: 3 semester hours.**
Principles and concepts of foodservice management planning, organization, and controls. Development of skills through projects in foodservice facilities. PREREQ: NTD 3312 and NTD 3312L. COREQ: NTD 4410L. S

**NTD 4410L Food Service Systems Management Laboratory: 2 semester hours.**
Practical application of foodservice management skills in various facilities. COREQ: NTD 4410. 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 and NTD 1104.

**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 hour.**
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.**

**F**

**NTD 4487 Dietetic Internship Seminar II: 6 semester hours.**

**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 hour.**
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**
Emergency Management

Faculty
Coordinator and Instructor
Mikitish

One Associate of Science degree and one Bachelor of Science degree are available to the student.

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 develop effective oral and written communication skills.
6. To engage in problem solving.
7. 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.

Course sequencing should be arranged to meet individual needs. Students are strongly advised to make an appointment with Mr. Michael Mikitish at (208) 373-1763 or mikimich@isu.edu for more 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 http://www.isu.edu/ctech/emergencymanagement/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Associate of Science Degree: Emergency Management (65 credits)

Emergency Management Core Courses (27 lower division credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 1101</td>
<td>Incident Command System Basic</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 1110</td>
<td>Leadership and Influence</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 1121</td>
<td>Principles of Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 1122</td>
<td>Emergency Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 2221</td>
<td>Emergency Management Operations</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 2222</td>
<td>Emergency Planning</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 2223</td>
<td>Mitigation for Emergency Managers</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 2224</td>
<td>Disaster Response and Recovery</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 2225</td>
<td>Emergency Management Exercise Design</td>
<td>3</td>
</tr>
</tbody>
</table>

University General Education Requirements (p. 47) (36 credits minimum) will be partially met with the following recommended courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (Fulfills General Education Objective 3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1103</td>
<td>Introduction to Ethics (Partially fulfills General Education Objective 4)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter (Partially fulfills General Education Objective 5)</td>
<td>3-4</td>
</tr>
<tr>
<td>or CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td></td>
</tr>
<tr>
<td>or CHEM 1111</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>ECON 1100</td>
<td>Economic Issues (Any of the following partially fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>or ECON 2202</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>POLS 1101</td>
<td>Introduction to United States Government (Partially fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology (Partially fulfills General Education Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 1102</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

1  MATH 1153 is a prerequisite for some upper division EMGT courses.
2  Either SOC 1101 or SOC 1102 are prerequisites for some upper division EMGT courses.

Bachelor of Science Degree: Emergency Management (120 credits)

This total includes the Associate Degree requirements.

Emergency Management Core Courses for the Bachelor of Science (33-39 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 3301</td>
<td>Incident Command System Advanced</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3302</td>
<td>Hazards Mitigation</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3303</td>
<td>Disaster Response and Recovery Advanced</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3304</td>
<td>Integrated Systems in Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3305</td>
<td>Political and Policy Basis of Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3306</td>
<td>Hazardous Materials Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3307</td>
<td>Social Dimensions of Disaster</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3308</td>
<td>Leading in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4401</td>
<td>Research and Analysis Methods in Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4402</td>
<td>Critical Infrastructure Public Private Issues</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4404</td>
<td>Emergency Management Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>
Additional Requirement (for those without practitioner experience)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 4403</td>
<td>Internship</td>
<td>3-6</td>
</tr>
</tbody>
</table>

Emergency Management Electives (18-24 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 3320</td>
<td>Public Administration and Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3321</td>
<td>Sociology of Disaster</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3322</td>
<td>AgroTerrorism</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3323</td>
<td>Business and Industry Crisis Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3324</td>
<td>Geologic Hazards and Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3325</td>
<td>Flood Plain Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3326</td>
<td>International Disasters</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3327</td>
<td>Social Vulnerability Approach to Emergency Manag.</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3328</td>
<td>Nonprofit Sector and Disasters</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3329</td>
<td>Technology in Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 3330</td>
<td>Incident Command Teams Position Specific</td>
<td>2</td>
</tr>
<tr>
<td>EMGT 4402</td>
<td>Critical Infrastructure Public Private Issues</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4420</td>
<td>Legal Issues in Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4421</td>
<td>Public Health Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 4430</td>
<td>Incident Management Teams All Hazards</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4403</td>
<td>Principles of Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3325</td>
<td>Introduction to Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4434</td>
<td>Terrorism and Political Violence</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4452</td>
<td>Budgeting and Finance</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4455</td>
<td>Environmental Politics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4458</td>
<td>Public Administration Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor in Emergency Management

Students seeking a minor in Emergency Management must complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 1121</td>
<td>Principles of Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>At least 9 credits from the AS or BS EMG. Core courses</td>
<td>9</td>
</tr>
<tr>
<td>EMGT elective credits</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Total Hours: 18

Nine (9) of the eighteen (18) total credits must be upper division.

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. PREREQ: 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. PREREQ: EMGT 1121. PREREQ or COREQ: Goal 4 and Goal 5. 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. PREREQ: EMGT 1121. PREREQ or COREQ: Goal 4 and Goal 5. 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. PREREQ: EMGT 1121. PREREQ OR COREQ: Goal 4 and Goal 5. 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. PREREQ: EMGT 1121. PREREQ or COREQ: Goal 4 and Goal 5. 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. PREREQ: EMGT 1121. D

**EMGT 2296 Independent Study: 1-8 semester hour.**
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 hour.**
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: EMGT 1101. 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. PREREQ: EMGT 2223. 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 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 natural 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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

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 hour.
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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Fire Services Administration

Faculty
Coordinator
Mikitish

One Associate of Science degree (which requires 64 credits) and one Bachelor of Science degree are available in this online program.

As a result of rapid changes in firefighting and the administrative duties currently being experienced in the field, academic degrees are being made 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 standardized 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.

Because students must complete 36 credits of general education courses in addition to other degree requirements, it is highly recommended that a student meet with an advisor prior to beginning this program. An Associate of Science degree in Fire Services Administration is required for those wishing to pursue a Bachelor of Science in Fire Services Administration.

All Fire Services Administration courses are online. Students must have minimum computer requirements as listed in the program information packet provided at http://www.isu.edu/ctech/fireservices/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Associate of Science Degree: Fire Services Administration

One of the following courses is required and will partially satisfy General Education Objective 5.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter</td>
<td>4</td>
</tr>
<tr>
<td>Or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>Or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
<td>4</td>
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</table>

University General Education Requirements (p. 47) (36 credits minimum) may be partially met with the following recommended courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECON 1100</td>
<td>Economic Issues (Each partially satisfies General Education Objective 6)</td>
<td>3</td>
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<tr>
<td>Or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
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</table>

or ECON 2202 Principles of Microeconomics 3

PHL 1103 Introduction to Ethics (Partially satisfies General Education Objective 4) 3

POLS 1101 Introduction to United States Government (Partially satisfies General Education Objective 6) 3

MATH 1153 Introduction to Statistics (Satisfies General Education Objective 3) 3

Fire Services Administration Core Courses (12 lower division credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA 1101</td>
<td>Building Construction for Fire Protection</td>
<td>2</td>
</tr>
<tr>
<td>FSA 1102</td>
<td>Fire Behavior and Combustion</td>
<td>2</td>
</tr>
<tr>
<td>FSA 1103</td>
<td>Fire Prevention</td>
<td>2</td>
</tr>
<tr>
<td>FSA 1105</td>
<td>Fire Protection Systems</td>
<td>2</td>
</tr>
<tr>
<td>FSA 1106</td>
<td>Principles of Emergency Services</td>
<td>2</td>
</tr>
<tr>
<td>FSA 1107</td>
<td>Principles of Fire and Emergency Services Safety and Survival</td>
<td>2</td>
</tr>
</tbody>
</table>

Fire Services Administration Non-Core Courses (4 credits)

Select TWO of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA 1104</td>
<td>Fire Protection Hydraulics and Water Supply</td>
<td>2</td>
</tr>
<tr>
<td>FSA 2201</td>
<td>Fire Administration</td>
<td>2</td>
</tr>
<tr>
<td>FSA 2202</td>
<td>Legal Aspects of the Emergency Services</td>
<td>2</td>
</tr>
</tbody>
</table>

Additional Electives

Students must complete additional electives to total 64 credits.

1 Completion of Fire Officer I (90 hours) meets this 4-credit requirement.

Bachelor of Science Degree: Fire Services Administration

44 upper division credits required in the major.
Lower division (AS requirements), upper division, and electives must total a minimum of 120 credits.

Fire Service Administration majors may earn a degree in Fire Service Administration without an emphasis or a degree in Fire Service Administration with an emphasis in Political Science.

Fire Service Administration Degrees-at-a-Distance Courses (44 upper division credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA 3323</td>
<td>Fire and Emergency Services Administration</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3324</td>
<td>Analytic Approaches to Public Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3325</td>
<td>Personnel Management for the Fire Service Administrator</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3326</td>
<td>Fire Prevention Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3327</td>
<td>Fire-Related Human Behavior</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3328</td>
<td>Disaster Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3329</td>
<td>Political and Legal Foundations of Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3330</td>
<td>Fire Protection Structures and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FSA 3331</td>
<td>Community Risk Reduction for Fire and Emergency Services</td>
<td>3</td>
</tr>
</tbody>
</table>

or ECON 2202 Principles of Microeconomics 3
FSA 3332 Fire Investigation and Analysis 3
FSA 3333 Applications of Fire Research 3
FSA 3334 Fire Dynamics 3
FSA 3335 Emergency Medical Services Administration 3
FSA 3336 Managerial Issues of Hazardous Materials 3
Select ONE additional course from the following: 2
FSA 4403 Field Study
FSA 4409 Practicum-Internship

Political Science Emphasis (15 credits) 2

This emphasis fulfills upper division elective requirements and requirements for a minor in Political Science and is recommended for students seeking a Master of Public Administration degree.

POLS 2202 Introduction to Politics Critical Thinking and Analysis 3
Six credits of political science core curriculum courses (excluding POLS 4460) 6
Six credits of elective political science courses (excluding POLS 4459) 6

2 POLS 1101, Introduction to United States Government, is required for the minor if coursework is not complete in Fire Services Administration Associate degree.

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. 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 1104 Fire Protection Hydraulics and Water Supply: 2 semester hours.
Principles and theories in the use of water in fire protection and hydraulic principles to analyze and solve water supply problems. 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 2206 Independent Study: 1-8 semester hour.
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 2209 Special Topics: 1-8 semester hour.
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 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 1106 and 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 1104, FSA 1105, and FSA 1106. 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 1106, 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 and FSA 1106. 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. PREREQ: FSA 1106. 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. PREREQ: FSA 1106. 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 1106 and 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 and FSA 1106. 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 and FSA 1106. 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 and FSA 1106. 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: FSA 1103 and FSA 1106. 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 and FSA 1106. 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. PREREQ: FSA 1106, FSA 2201, and FSA 2202. D

FSA 4403 Field Study: 2 semester hours.
Field experience in directed study in a variety of professional and career-oriented situations. Open to degree candidates only. Graded P/NP

FSA 4409 Practicum-Internship: 2 semester hours.
Supervised experience in fire service administration in a variety of command levels and responsibilities. Open to degree candidates only. Graded P/NP
Health Care Administration Program

Faculty
Program Director and Assistant Professor
Hermanson

Associate Professor
Farnsworth

Adjunct Faculty
Casper
Huerta
Kramer
Thompson
Wright

Emeritus Faculty
Kritsky

Our Mission
The Health Care 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 education of health professionals in the State of Idaho, and the Kasiska School of Health Profession’s mission of enhancing the quality of life of the residents 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 Health Care Administration Program delivers state-of-the-art education to traditional and nontraditional students using a theoretical and programmatic approach. We address emerging industry needs using innovative instructional methods to deliver valid competencies and educational outcomes based on industry’s and our constituency’s needs.

Specifically, we:

• Prepare individuals for entry or mid-level management positions in group practice, ambulatory care, long-term care, hospitals, managed care organizations, and other health-related organizations.
• Develop administrative, technical, problem-solving, conceptual, and human relations knowledge and skills that provide the foundation for future healthcare administrators and leaders.
• Use industry competency models and current evidence on teaching and learning to provide students the best quality education possible.
• Foster practical educational experiences and promote interaction among students, alumni, and mentors in area and regional health organizations.
• Work 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 health care 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 Health Care Administration at Idaho State University is to prepare students for the wide range of activities needed for administration of health care facilities and to provide service courses for students majoring in other health-related programs. Also, 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 Health Care 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.

Admission Requirements
Application forms for admission to the major in Health Care Administration can be accessed online (http://isu.edu/hns/hca/admission.shtml) or upon request from the program office. Completed application forms and copies of transcripts of previous college work may be submitted to the program upon satisfactory completion of all prerequisite courses. Applications are considered by the program’s admission committee as they are received. Cumulative college or university grade point average of 2.75 or higher is required for admittance to the major. The following are prerequisites for admission to the health care administration major, and some are also part of the program requirements: ACCT 2201, ECON 2201, ECON 2202, HCA 1115, HCA 2215, and ENGL 1102.

Students are required to earn a grade of C- or better in all business, HCA, and required courses. Students who receive a grade of D or below twice in any required courses will not be admitted and, if admitted, will be dropped from the HCA program. All such decisions will be reviewed by the program’s Admission Committee.

Students whose cumulative GPAs fall below 2.75 will be placed on departmental probationary status and will not be able to graduate with the degree in Health Care Administration until their cumulative GPAs are 2.75 or higher.

Bachelor of Science in Health Care Administration
Completion of the BS in Health Care Administration (which includes a minor in Business) requires 120 credit hours, as follows:

General Education and Elective Requirements
Sub-total hours 50

Total Hours 31

<table>
<thead>
<tr>
<th>Health Care Administration Core Requirements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HCA 1115 US Health System</td>
<td>3</td>
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<tr>
<td>HCA 2215 Healthcare Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3330 Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3340 Healthcare Policy</td>
<td>3</td>
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<tr>
<td>HCA 3384 Human Resource Management in Healthcare Organizations</td>
<td>3</td>
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<tr>
<td>HCA 4453 Healthcare Finance</td>
<td>3</td>
</tr>
<tr>
<td>HCA 4465 Healthcare Operations and Quality</td>
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<td>HCA/HE 4473 Healthcare Strategic Planning and Marketing</td>
<td>3</td>
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<tr>
<td>HCA 4475 Health Law and Bioethics</td>
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</tr>
<tr>
<td>HCA 4495 Administrative Internship</td>
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</table>

Total Hours 31
Business Core Requirements

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

Total Hours 33

Other Required Core Courses

ECON 3303 Economics of Health Care 3
HE 3383 Epidemiology 3

Total Hours 6

HCA Program Total Hours: 120

Health Informatics Major Requirements

Required Courses

INFO 1181 Informatics and Programming I 3
or CS 1181 Computer Science and Programming I 3
INFO 1182 Informatics and Programming II 3
or CS 1182 Computer Science and Programming II 3
INFO 2285 Software and Systems Architecture 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 Assurance 3
INFO 4426 Health Data Analytics 3
MGT 4482 Project Management 3
HCA 1115 US Health System 3
HCA 4465 Healthcare Operations and Quality 3
HCA 4489 Healthcare Information Systems Practicum * 3

Total Hours 39

* HCA 4489 also meets the College of Business applied educational requirement.

Courses

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. 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

HCA 4450 Special Topics in Healthcare: 1-3 semester hour.
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 4456 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 care 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 principles 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
HCA 4481 Independent Problems in Health Services Administration: 1-3 semester hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Health Education and Promotion

Faculty
Director and Asst. Professor
Fore

Assistant Professors
Batacan
Olsen

Instructor
Orgill

Clinical Assistant Professor
Kirkpatrick

Emeriti
Kearns
Kritsky
McAleese
Morris

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 forever.

The undergraduate program in health education and promotion 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 health education and promotion are eligible to take the Certified Health Education Specialist (CHES) national certification offered through the National Commission on Health Education Credentialing. (NCHEC) According to NCHEC, the benefits of the CHES designation include: establishes a national standard, attests to the individual’s knowledge and skills, assists employers in identifying qualified health education and promotion practitioners, develops a sense of pride and accomplishment, and promotes continued professional development. The undergraduate school health emphasis is accredited by the National Council for Accreditation of Teachers (NCATE).

Admission
Application for admission to the Health Education program is required of all students desiring to progress toward this major. Students may apply for program admission during the first semester of their sophomore year. The Health Education program has an open admission policy.

The following criteria must be met for an applicant to be eligible for consideration for admission to the health education program:

1. A minimum of a 2.75 GPA at the time of application.
2. Completion of or concurrent enrollment in the following courses with a “C” grade or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I and Biology I Lab (Partially satisfies General Education Objective 5)</td>
<td>4</td>
</tr>
<tr>
<td>INFO 1101</td>
<td>Digital Information Literacy (Satisfies General Education Objective 8)</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech (Satisfies General Education Objective 2)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing (Satisfies General Education Objective 1)</td>
<td>3</td>
</tr>
<tr>
<td>HE 2200</td>
<td>Promoting Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (Satisfies General Education Objective 3)</td>
<td>3</td>
</tr>
<tr>
<td>NTD 1139</td>
<td>Consumer Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Or</td>
<td>NTD 2239 Nutrition (Partially satisfies General Education Objective 5)</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Submission of a health education philosophy statement and a statement describing an occupational goal that includes the use of health education.

Transfer students must have their transcripts evaluated by the Office of Admissions prior to application for program admission. Transfer students who have satisfied the Idaho State University General Education requirements, have at least a 2.75 GPA, and have completed the equivalent of the courses listed in #2 above will be considered for admission.

All students accepted into the health education program must maintain at least a 2.75 GPA during their undergraduate studies.
Bachelor of Arts or Bachelor of Science in Health Education

Major in Health Education

Students choosing to major in health education must complete all university General Education Requirements (p. 47) for the B.A. or B.S. degree, all core health education requirements, and all courses from one of the two emphasis areas listed below. Students selecting the school health emphasis should complete coursework toward a teaching minor or second teaching major. In addition, students wishing to teach must also complete all College of Education (p. 183) course requirements.

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science Degree in Health Education

1. Completion of the university General Education Requirements, a minimum of 36 credits (see General Education Requirements (p. 47) and Applying to Graduate (p. 64) in the Academic Information section of this catalog). Courses which partially or wholly fulfill both General Education Objectives and major requirements are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101 I &amp; 1101L</td>
<td>Biology I and Biology I Lab (Objective 5)</td>
<td>4</td>
</tr>
<tr>
<td>INFO 1101</td>
<td>Digital Information Literacy (Objective 8)</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech (Objective 2)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics (Objective 6)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing (Objective 1)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (Objective 3)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology (Objective 6)</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Completion of the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>NTD 1139</td>
<td>Consumer Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Or</td>
<td>NTD 2239</td>
<td>Nutrition (Partially satisfies Objective 5))</td>
</tr>
</tbody>
</table>

3. Completion of the Health Education Major Core Requirements (21 credits).

4. Completion of the courses from one of the two emphasis areas listed below. Students selecting the school health emphasis should complete coursework toward a teaching minor or second teaching major. In addition, students wishing to teach must also complete all College of Education (p. 183) 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 course prerequisites for General Education requirements and is dependent on the health education major emphasis area selected.

In Addition:

Credits earned in a health education course with a grade of lower than a “C” will not be counted toward graduation for a health education major. The student must present a current first aid and CPR card to her/his advisor.

Health Education Major Core Requirements (21 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2200</td>
<td>Promoting Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 3340 &amp; 3340L</td>
<td>Fitness and Wellness Programs Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>HE 3342</td>
<td>Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HE 4435</td>
<td>Health Program Evaluation and Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 21

Addiction Studies Option (minimum of 36 credits) 1

In addition to the Health Education Major Core, the following courses are required in the Addictions Studies option:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>HE 2232</td>
<td>Helping Theories</td>
<td>3</td>
</tr>
<tr>
<td>HE 3311</td>
<td>Case Management of Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>HE 3312</td>
<td>Ethics for the Addictions Counselor</td>
<td>3</td>
</tr>
<tr>
<td>HE 3383</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HE 4432</td>
<td>Community and Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4443</td>
<td>Substance Abuse and Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HCA/HE 4473</td>
<td>Healthcare Strategic Planning and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>HE 4490</td>
<td>Practicum in Health Education</td>
<td>4</td>
</tr>
<tr>
<td>HCA 3350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3384</td>
<td>Human Resource Management in Healthcare</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 33

1 Must also complete 6 credit hours of HE courses

Community/Worksite Health Emphasis (minimum of 36 credits) 1

In addition to the Health Education Major Core, the following courses are required in the Community/Worksite Health Emphasis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>HE 3383</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HE 4432</td>
<td>Community and Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4442</td>
<td>Environmental Health and Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4443</td>
<td>Substance Abuse and Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4445</td>
<td>Human Sexuality and Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HCA/HE 4473</td>
<td>Healthcare Strategic Planning and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>HE 4490</td>
<td>Practicum in Health Education</td>
<td>4</td>
</tr>
<tr>
<td>HCA 3350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3384</td>
<td>Human Resource Management in Healthcare</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 30

1 Must also complete 6 credit hours of HE courses

School Health Emphasis (12 credits)

In addition to the Health Education Major Core listed above, the following courses are required in the School Health Emphasis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 3340 &amp; 3340L</td>
<td>Fitness and Wellness Programs Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>HE 3342</td>
<td>Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HE 4435</td>
<td>Health Program Evaluation and Research</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 12
Students in the School Health Emphasis must also complete the Professional Education Core (44 credits) from the College of Education (see Secondary Teacher Education (p. 199) requirements).

**TOTAL CREDITS FOR HEALTH EDUCATION DEGREE 42-51 credits**

### Health Education Teaching Minor (21 credits)

**Prerequisites:**
- Admission to Teacher Education Program
- Admission to Health Education Program

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2200</td>
<td>Promoting Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs &amp; 3340L</td>
<td>3</td>
</tr>
<tr>
<td>HE 3342</td>
<td>Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4430</td>
<td>Curriculum and Methods in Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4442</td>
<td>Environmental Health and Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4443</td>
<td>Substance Abuse and Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4445</td>
<td>Human Sexuality and Health Education</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 21**

### Health Education Non-teaching Minor (21 credits)

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2200</td>
<td>Promoting Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs &amp; 3340L</td>
<td>3</td>
</tr>
<tr>
<td>HE 3342</td>
<td>Stress and Emotional Health</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HE 4435</td>
<td>Health Program Evaluation and Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours 21**

### Addiction/Dependency Counselor Certification

Any Health Education majors who wish Idaho CADC certification must complete the following coursework and pass the ISAS Level I exam. Two courses are taught each semester and will be listed in the Class Schedule; contact the Department of Health and Nutrition Sciences to learn which courses will be scheduled in the future.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2230</td>
<td>Introduction to Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HE 2232</td>
<td>Helping Theories</td>
<td>3</td>
</tr>
<tr>
<td>HE 2233</td>
<td>Harmful and Illicit Substances</td>
<td>3</td>
</tr>
<tr>
<td>HE 2234</td>
<td>Blood Borne Illness</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 2235</td>
<td>Chemical Dependency and the Family</td>
<td>3</td>
</tr>
<tr>
<td>HE 3310</td>
<td>Screening and Assessment of Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>HE 3311</td>
<td>Case Management of Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>HE 3312</td>
<td>Ethics for the Addictions Counselor</td>
<td>3</td>
</tr>
<tr>
<td>HE 3313</td>
<td>Practicum for the Chemical Dependency Counselor</td>
<td>3</td>
</tr>
</tbody>
</table>

**Courses**

**HE 1100 Driver Training and Traffic Safety: 1 semester hour.**
Basic instruction and procedures in the operation of motor vehicles, defensive driving, and general traffic safety. Classroom, driving simulation, and range and road experience. D

**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 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

**HE 2221 Introduction to Health Education: 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

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: Admission to Health and Nutrition Science or 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: Admission to Program. COREQ: HE 3340L. 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 3350 Driver and Traffic Safety Education I: 2 semester hours.
Comprehensive study of factors basic to responsible driving. Practical application to improve driving skills and understanding of the organization, administration, and planning of a driver traffic safety education curriculum. Su

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 hour.
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 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: Admission to Program. 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: Admission to Program. 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. PREREQ or COREQ: HE 4410. 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 4441 Driver and Traffic Safety Education II: 2 semester hours.
Development of student learning activities in driver and traffic safety education. Directed laboratory teaching experience includes teaching of beginning drivers in classroom and behind-the-wheel phases. PREREQ: HE 3350. S

HE 4442 Environmental Health and Health Education: 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 and Health Education: 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 4445 Human Sexuality and Health Education: 3 semester hours.
Study of the multifaceted nature of human sexuality with an emphasis on school and community-level educational programs. S, D

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 Health Education: 1-3 semester hour.
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 Health Education: 4 semester hours.
Practical experience in a field based setting, congruent with student's employment goals. Required for community/worksite health option students. PREREQ: Senior standing in Health Education. Graded S/U. F, S, Su

HE 4491 Health Education Workshop: 1-3 semester hour.
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 hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Medical Laboratory Science

Faculty
Program Director
Rachel Hulse

Professor Emeritus
Kathy Spiegel

Clinical Associate Professors
Susan Galindo
Sonja Nehr-Kanet

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 in patient diagnosis, 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.

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.

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 on 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 Kasiska 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.
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. 47) (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. 47) 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1143</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 2206</td>
<td>Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; BIOL 2207</td>
<td>and Cell Biology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 2235</td>
<td>General Microbiology</td>
<td>4</td>
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<tr>
<td>&amp; 2235L</td>
<td>and General Microbiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4451</td>
<td>Immunology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4463</td>
<td>Human Pathophysiology</td>
<td>3-4</td>
</tr>
<tr>
<td>or BIOL 3305</td>
<td>Introduction to Pathobiology</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLS 4410</td>
<td>Phlebotomy Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MLS 4412</td>
<td>Urinalysis and Body Fluids</td>
<td>1</td>
</tr>
<tr>
<td>MLS 4414</td>
<td>Hematology and Hemostasis</td>
<td>3</td>
</tr>
<tr>
<td>MLS 4416</td>
<td>Medical Microbiology I</td>
<td>3</td>
</tr>
<tr>
<td>MLS 4418</td>
<td>Medical Chemistry and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>MLS 4420</td>
<td>Medical Immunology</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4422</td>
<td>Basic Concepts in Transfusion Medicine</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4424</td>
<td>Medical Laboratory Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>MLS 4431</td>
<td>Medical Microbiology II</td>
<td>3</td>
</tr>
<tr>
<td>MLS 4433</td>
<td>Medical Laboratory Science Management and Education</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4435</td>
<td>Molecular Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>MLS 4437</td>
<td>Critical Analysis of Lab Information</td>
<td>3</td>
</tr>
<tr>
<td>MLS 4439</td>
<td>Advanced Concepts in Transfusion Medicine</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4441</td>
<td>MLS Research</td>
<td>1-3</td>
</tr>
<tr>
<td>MLS 4455</td>
<td>MLS Student Laboratory Practices</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4490</td>
<td>General Site Practicum</td>
<td>1-6</td>
</tr>
<tr>
<td>MLS 4491</td>
<td>Microbiology Practicum</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4492</td>
<td>Hematology and Urinalysis Practicum</td>
<td>2</td>
</tr>
<tr>
<td>MLS 4493</td>
<td>Transfusion Blood Bank Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MLS 4494</td>
<td>Chemistry and Automation Practicum</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Hours: 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.

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 MLS Student Laboratory Practices: 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 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 hour.
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 hour.
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 hour.
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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
# Paramedic Science Program

**Faculty**

**Program Coordinator**
Mikitish

**Emergency Medical Services (EMS)**

An Associate of Science degree in Paramedic Science and a Bachelor of Science degree in Health Sciences: Emergency Medical Services Concentration are both available to the student in this area.

**Educational Goal:**

Develop an Emergency Medical Services Professional that 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

One Associate of Science degree in Paramedic Science is offered at the ISU-Meridian Health Science Center. This program will provide students with the skills and knowledge to:

1. **Provide care to patients in and out of the hospital setting.**

2. **Through patient assessments and provision of medical care, they will work to prevent and reduce mortality and morbidity due to illness and injury.**

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.

The objective of the Associate of Science in Paramedic Science is to prepare Emergency Medical Technicians with the opportunity to attain an Associate of Science degree in the paramedic profession. This degree will provide employment and additional education opportunities for the student to become a registered, certified paramedic and work in the paramedic field in Idaho as well as surrounding states.

The Paramedic Program curriculum consists of a pre-professional year followed by three semesters of lecture, laboratory, and clinical field experience, including a three-month field internship. Students who earn the Associate of Science degree are qualified to take the EMT-P examination through the National Registry of Emergency Medical Technicians.

## Associate of Science Degree: Paramedic Science

### Degree Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td>and Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>PARM 2211</td>
<td>Basic ECG Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2212</td>
<td>Paramedic Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2213</td>
<td>Paramedic Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>PARM 2213L</td>
<td>Paramedic Fundamentals Lab</td>
<td>1</td>
</tr>
<tr>
<td>PARM 2214</td>
<td>Paramedic Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2215</td>
<td>Introduction to Paramedic Medicine</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2217L</td>
<td>Paramedic Integration I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PARM 2221</td>
<td>Medical Emergencies</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2221L</td>
<td>Medical Emergencies Lab</td>
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</tr>
<tr>
<td>PARM 2222</td>
<td>Trauma Care</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2223</td>
<td>Advanced Emergency Care</td>
<td>2</td>
</tr>
<tr>
<td>PARM 2224</td>
<td>Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2224L</td>
<td>Special Populations Lab</td>
<td>1</td>
</tr>
<tr>
<td>PARM 2225</td>
<td>Advanced ECG Interpretation</td>
<td>2</td>
</tr>
<tr>
<td>PARM 2229</td>
<td>Paramedic Clinical Practicum I</td>
<td>1</td>
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<tr>
<td>PARM 2231</td>
<td>Rescue Operations</td>
<td>2</td>
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<tr>
<td>PARM 2237L</td>
<td>Paramedic Integration II Lab</td>
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<tr>
<td>PARM 2239</td>
<td>Paramedic Clinical Practicum II</td>
<td>3</td>
</tr>
<tr>
<td>PARM 2249</td>
<td>Paramedic Field Practicum II</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Hours: 54**

## Bachelor of Science in Health Science: EMS Concentration

**Concentration 5: Emergency Medical Services (EMS)**

This concentration will prepare students for the challenges of becoming Emergency Medical Services health care professionals in a time of increasing growth in the profession, expanding roles, and competing priorities. This baccalaureate degree is designed to provide Paramedic Associate of Science degree graduates the opportunity to pursue a Bachelor of Science (BS) degree in health sciences and satisfy many of the prerequisites for a variety of health science-related graduate programs. This concentration has four tracks to choose from: Leadership/Management, Clinical, Education, and Community Paramedic. Choosing a specific track will prepare students to enter those types of assignments within the Emergency Medical Services profession. For more information about degree requirements, see the Bachelor of Science in Health Science (p. 238) section of this catalog.

### EMS Concentration Requirements:

#### Associate of Science in Paramedic Science ¹

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>Anatomy and Physiology Lab</td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td>Anatomy and Physiology Lab</td>
</tr>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
</tr>
</tbody>
</table>

#### BS in Health Science Core ²³

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics (Professional/Diversity Competency)</td>
</tr>
<tr>
<td>ECON 3303</td>
<td>Economics of Health Care (Health Care Competency)</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing (Communications Competency)</td>
</tr>
</tbody>
</table>

**Recommended courses within the Core:**

- **Emergency Medical Services Concentration** 18-21

**Required Courses (9-12 credits):**

- **EMS 3300** Emergency Medical Services Operations and Management
<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EMS 3335</td>
<td>Emergency Medical Services Administration</td>
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<tr>
<td>EMS 4409</td>
<td>Emergency Medical Services Internship</td>
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**Electives (minimum of 9 credits):**

Select elective credits from one of the tracks in the following table.

**Total**: 122

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### Leadership Management Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EMS 3310</td>
<td>Development and Strategic Planning</td>
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<td>EMS 3320</td>
<td>Disaster Response Planning and Management</td>
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<tr>
<td>HCA 2215</td>
<td>Healthcare Leadership</td>
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<td>HCA 3340</td>
<td>Healthcare Policy</td>
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<tr>
<td>HCA 3384</td>
<td>Human Resource Management in Healthcare Organizations</td>
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<td>Healthcare Finance</td>
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<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
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<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
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<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
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<tr>
<td>ECON 3303</td>
<td>Economics of Health Care</td>
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<tr>
<td>EMGT 3301</td>
<td>Incident Command System Advanced</td>
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<td>EMGT 3305</td>
<td>Political and Policy Basis of Emergency Management</td>
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<td>EMGT 3307</td>
<td>Social Dimensions of Disaster</td>
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<td>EMGT 3308</td>
<td>Leading in Organizations</td>
<td>3</td>
</tr>
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<td>EMGT 4420</td>
<td>Legal Issues in Emergency Management</td>
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<td>EMGT 4421</td>
<td>Public Health Preparedness</td>
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<tr>
<td>FSA 3331</td>
<td>Community Risk Reduction for Fire and Emergency Services</td>
<td>3</td>
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<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
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<tr>
<td>BIOL 2221</td>
<td>Introductory Microbiology</td>
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<td>&amp; 2221L</td>
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<td>or BIOL 2235 &amp; 2235L</td>
<td>General Microbiology and General Microbiology Lab</td>
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<td>&amp; 2235L</td>
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<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
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<tr>
<td>BIOL 4432</td>
<td>Biochemistry</td>
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<td>or BIOL 4445</td>
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<td>CHEM 1111</td>
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<td>and General Chemistry I Lab</td>
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<td>CHEM 1112</td>
<td>General Chemistry II</td>
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<td>and General Chemistry II Lab</td>
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<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
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<td>&amp; CHEM 3303</td>
<td>Organic Chemistry Laboratory I</td>
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<td>PSYC 3301</td>
<td>Abnormal Psychology I</td>
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### Educational Track

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EMS 3310</td>
<td>Development and Strategic Planning</td>
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<tr>
<td>EMS 3320</td>
<td>Disaster Response Planning and Management</td>
<td>3</td>
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<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
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</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
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<tr>
<td>HE 2221</td>
<td>Introduction to Health Education</td>
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<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs &amp; 3340L</td>
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<td>&amp; 3340L</td>
<td>and Fitness and Wellness Programs Laboratory</td>
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<td>HE 3342</td>
<td>Stress and Emotional Health</td>
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<tr>
<td>HE 3383</td>
<td>Epidemiology</td>
<td>3</td>
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<tr>
<td>HE 4410</td>
<td>Health Behavior Change Theory and Application</td>
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<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
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<tr>
<td>HE 4425</td>
<td>Patient Education Skills</td>
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<td>HE 4430</td>
<td>Curriculum and Methods in Health Education</td>
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<td>HE 4432</td>
<td>Community and Public Health</td>
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<td>HE 4435</td>
<td>Health Program Evaluation and Research</td>
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<td>EMGT 3307</td>
<td>Social Dimensions of Disaster</td>
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<td>Legal Issues in Emergency Management</td>
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<td>EMGT 4421</td>
<td>Public Health Preparedness</td>
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<tr>
<td>FSA 3329</td>
<td>Political and Legal Foundations of Fire Protection</td>
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<td>FSA 3331</td>
<td>Community Risk Reduction for Fire and Emergency Services</td>
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### Clinical Track

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<tr>
<td>HCA 4465</td>
<td>Healthcare Operations and Quality</td>
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<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
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<td>HE 2221</td>
<td>Introduction to Health Education</td>
<td>3</td>
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<tr>
<td>HE 3340</td>
<td>Fitness and Wellness Programs &amp; 3340L</td>
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<td>&amp; 3340L</td>
<td>and Fitness and Wellness Programs Laboratory</td>
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<td>HE 3342</td>
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<td>Epidemiology</td>
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<td>HE 4420</td>
<td>Health Program Planning and Implementation</td>
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<td>HE 4425</td>
<td>Patient Education Skills</td>
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<tr>
<td>HE 4430</td>
<td>Curriculum and Methods in Health Education</td>
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<td>Community and Public Health</td>
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<td>HE 4435</td>
<td>Health Program Evaluation and Research</td>
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<td>EMGT 3307</td>
<td>Social Dimensions of Disaster</td>
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<td>EMGT 4420</td>
<td>Legal Issues in Emergency Management</td>
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<td>Public Health Preparedness</td>
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### Community Paramedic Track

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EMS 3410</td>
<td>Community Paramedic in the Health Care System</td>
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<td>EMS 3420</td>
<td>Social Determinants of Health</td>
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<td>EMS 3430</td>
<td>Public Health and Primary Care Role of the Community Paramedic</td>
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<td>EMS 4310</td>
<td>Developing Cultural Competence</td>
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<td>EMS 4320</td>
<td>Community Paramedic's Role within the Community</td>
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<tr>
<td>EMS 4330</td>
<td>Community Paramedic's Personal Safety and Wellness</td>
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<tr>
<td>EMS 4350</td>
<td>The Clinical Experience for the Community Paramedic</td>
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1. Students must be a graduate of or be enrolled in a health related program that awards an associate degree in Paramedic Science. Students with an Associate of Applied Science Degree in Paramedic Science may transfer up to a maximum of 50 credits from this degree (all lower division credits).

2. Only 14 credits are needed from the BS in Health Science Core if BIOL 3301 and HCA 2210/HE 2210 were completed during the Associate of Science degree.

3. Students must satisfy the Bachelor of Science in Health Science core requirements as listed in the Undergraduate Catalog and the requirements listed below for the Emergency Medical Services (EMS) concentration.

4. Electives should be chosen in consultation with advisor.

5. EMS students who take HE courses are required to take HE 2221 first.
6 BIOL 2221/BIOL 2221L, BIOL 2235/BIOL 2235L, BIOL 4432, and BIOL 4445 meet pre-requisite requirements for Master’s in Physician Assistant Studies.

7 Health Education Non-teaching Minor (21 credits) - available for those students with a Health Education focus (see specific HE course listings in the Health Education and Promotion (p. 273) section of the Undergraduate Catalog). This minor would meet the elective credits required for the degree.

8 Students must complete all courses within the Community Paramedic Track to be awarded the Community Paramedic designation.

6 Semesters

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall Hours</th>
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Second Year

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<td>PARM 2212</td>
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<td>PARM 2215</td>
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<td></td>
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<td>PARM 2217L</td>
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Third Year

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<td>PARM 2249</td>
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<tr>
<td>Total</td>
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</table>

Total Hours: 54

Total for Associate Degree: 90 cr

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 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: 3 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 accompanying 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 hour.
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 hour.
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
Radiographic Science

Faculty

Program Director and Associate Professor
Hobbs

Assistant Professor
Mickelsen

Clinical Affiliate Instructors
Beard
Bird
Bitton
Campbell
Cannon
Hammer
Hopkins
Jacobsen
Keeling
Lopez
Pope
Rhodes
Vanover

Adjunct Faculty
Call
Price
Ward

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 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 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 to 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 both an Associate of Applied Science degree and a Bachelor's degree.

The Associate of Applied Science degree is managed by program faculty for students who are in the program and occasionally awarded to students prior to finishing the baccalaureate program.

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 radiographic science, biology,
physics, math, business, chemistry, and health care administration courses in
the curriculum. 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).

**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, 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 February 15th of the year the student is
seeking admission. If the 15th falls on a weekend 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 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.

**Prerequisite Coursework**

Requirements that fulfill General Education Objectives

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry (Partially satisfies General Education Objective 3)</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1101</td>
<td>Digital Information Literacy (Satisfies General Education Objective 5)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (Satisfies General Education Objective 3)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Biology I and Biology I Lab (Partially fulfills General Education Objective 5)</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics (Partially Fulfills General Education Objective 5)</td>
<td>4</td>
</tr>
</tbody>
</table>

(Together BIOL 1101, BIOL 1101L, and PHYS 1100 satisfy General Education Objective 5)

**Other Pre-Radiographic Science Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>RS 1105</td>
<td>Introduction to Radiographic Science</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 3303</td>
<td>Accounting Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3384</td>
<td>Human Resource Management in Healthcare Organizations</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 4473</td>
<td>Human Resource Management</td>
<td></td>
</tr>
<tr>
<td>HCA 4475</td>
<td>Health Law and Bioethics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Bachelor of Science in Radiographic Science**

A student may be awarded a Bachelor of Science in Radiographic Science by
fulfilling the following requirements:

**ISU General Education Requirements**

**Program Admission Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry (Partially satisfies General Education Objective 5)</td>
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</tr>
<tr>
<td>INFO 1101</td>
<td>Digital Information Literacy (Satisfies General Education Objective 8)</td>
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</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (Satisfies General Education Objective 5)</td>
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<tr>
<td>Course</td>
<td>Hours</td>
<td>Fall Hours</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>RS 3310 Radiographic Methods I</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>RS 3311 Radiographic Methods II</td>
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<td>2</td>
</tr>
<tr>
<td>RS 3312 Radiographic Methods III</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>RS 3320 Radiographic Imaging Applications</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS 3320L Radiographic Imaging Applications Laboratory</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS 3325 Patient Care in Radiography</td>
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<td>3</td>
</tr>
<tr>
<td>RS 3330 Radiographic Exposure</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>RS 3330L Radiographic Exposure Lab</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RS 3340 Laboratory Practicum I</td>
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<td>1</td>
</tr>
<tr>
<td>RS 3341 Laboratory Practicum II</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS 3342 Laboratory Practicum III</td>
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<tr>
<td>RS 3375 Pediatric Radiography</td>
<td>1</td>
<td>1</td>
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<tr>
<td>RS 3388 Radiation Protection</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS 3389 Applied Radiography I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>RS 3390 Applied Radiography II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>RS 4421 Computed Tomography</td>
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<td>1</td>
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<tr>
<td>RS 4430 Radiologic Pathology</td>
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<td>2</td>
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<tr>
<td>RS 4441 Advanced Radiographic Methods I</td>
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<td>1</td>
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<tr>
<td>RS 4450 Alternate Imaging Modalities with Introduction to Evidence-Based Research</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS 4460 Introduction to Radiographic Quality Assurance</td>
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</tr>
<tr>
<td>RS 4470 Advanced Radiographic Exposure</td>
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<td>2</td>
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<tr>
<td>RS 4475 Registry Review</td>
<td>2</td>
<td>2</td>
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<tr>
<td>RS 4488 Applied Radiography III</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>RS 4489 Applied Radiography IV</td>
<td>6</td>
<td>6</td>
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<tr>
<td>RS 4490 Applied Radiography V</td>
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<td>6</td>
</tr>
<tr>
<td>BIOL/HPHY 3307 Radiobiology</td>
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<tr>
<td>BIOL 4470 Cross-Sectional Anatomy</td>
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<tr>
<td>HPHY 3300 Medical Electronics</td>
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<td>2</td>
</tr>
<tr>
<td>HPHY 3321 Radiologic Physics</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

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.

**PROFESSIONAL YEAR II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Fall Hours</th>
<th>Spring Hours</th>
<th>Summer Hours</th>
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<tr>
<td>RS 3312 Introduction to Radiographic Science: 1 semester hour</td>
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<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>RS 3342 2 BIOL 3307 or HPHY 3307</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>RS 4421 1 RS 4430</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RS 4441 1 RS 4441</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RS 4450 1 RS 4450</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
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</tr>
<tr>
<td>RS 4460 2 RS 4460</td>
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<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>RS 4489 6 RS 4489</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>RS 4490 13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>0</td>
<td>13</td>
</tr>
</tbody>
</table>

Total Hours: 28

**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 terminology, theory and principles of anatomy, and positioning of the chest, abdomen, and upper extremities. 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, parasatal 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

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. F

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

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, arthography, and myelography. S

RS 4491 Seminar-Selected Topics: 1-6 semester hour.
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
School of Nursing

Faculty
Dean and Professor
Nies

Professor and Associate Director for Graduate Studies
Neill

Assistant Professor and Coordinator
Rocha
Tavernier
Adams

Assistant Professor
Arvidson

Assistant Professors
P Gee
Kehinde

Clinical Assistant Professors
Belliston
Baron
Bledsoe
Jardine-Dickerson
Ovitt
Fanning
J Gee
Sabel

Clinical Instructor and Simulation Lab Coordinator
Omotowa

Emeritae
Ashton
Jacobson
McLaughlin
McRoberts
Renn
Sato

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 school’s baccalaureate programs are fully accredited nationally by the American Association of Colleges of Nursing and approved by the Idaho State Board of Nursing. The aim of the School 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 write the National Council Licensure Examination for Registered Nurses (NCLEX-RN) to secure licensure as a professional registered nurse. Earning a Baccalaureate degree (BS) in nursing from Idaho State University requires students to earn 120 credits which are completed over a minimum of four years. Students take general education and nursing prerequisite courses their first two years at the University. In the spring of the second year, students must apply and be accepted into the baccalaureate nursing program to complete their programs of study. Please see the Nursing School website at http://www.isu.edu/nursing for details.

The courses listed below reflect a curriculum which is responsive to national trends and the health care needs of Idaho citizens. The focus in this curriculum is on multiple dimensions of client care, including the promotion of health as well as the alleviation of illness.

A. 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 Baccalaureate degree (BS) in nursing from Idaho State University requires students to earn 120 credits which are completed over a minimum of four years. Students take general education and nursing prerequisite courses their first two years at the University. In the spring of the second year, students must apply and be accepted into the baccalaureate nursing program to complete their programs of study. Please see the Nursing School website at http://www.isu.edu/nursing for details.

The courses listed below reflect a curriculum which is responsive to national trends and the health care needs of Idaho citizens. The focus in this curriculum is on multiple dimensions of client care, including the promotion of health as well as the alleviation of illness.

B. 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 degree in nursing and upon graduation are eligible to take the RN Licensure Exam (NCLEX-RN).

Students apply for admission to the Accelerated program in the spring. Those students admitted will be notified in mid April and begin the program in the summer semester. For all details regarding the Accelerated program, see http://www.isu.edu/nursing/accelerated.shtml

C. BS Completion Program

This is a program appropriate for Registered Nurses who wish to complete a baccalaureate degree in nursing. (http://www.isu.edu/nursing)

When admitted to the Bachelor of Science Completion nursing program, the student must complete the nursing program courses in two years or will be moved to the inactive list.

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 School 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 School of Nursing requirements.

Expenses

Students in the School of Nursing will incur certain expenses, such as the cost of transportation for learning experiences, clinical apparel, and lab fees in addition to the student expenses listed by the University. A professional fee of $760-$900 is charged each semester while enrolled in the BS with a major in Nursing program. The professional fee is charged regardless of the number of courses or credit hours a student takes in a semester. Clinical learning experiences are held in a variety of agencies with transportation and/or housing expenses the responsibility of the student.
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 School 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.

Admission to the Baccalaureate Nursing Programs

Traditional: Students apply for admission to the nursing program in the spring semester of the sophomore year. Those students admitted to the program will then begin the program in the fall semester of their junior year. 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 School of Nursing by mid March to ensure consideration for fall enrollment. Applicants will be notified of the results of the review process by mid April. Please see the School of Nursing website (www.isu.edu/nursing/) for all the details about the Traditional, Accelerated, and BS Completion programs for RNs.

Accelerated: Students interested in the Accelerated program must have completed a Bachelor degree in an area other than nursing prior to applying. Students apply for admission to the nursing program in the spring semester. Those students admitted to the program will then begin the 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 School of Nursing by mid March to ensure consideration for summer enrollment. Applicants will be notified of the results of the review process by mid April. Please see the School of Nursing website (www.isu.edu/nursing/) for all the details about the Traditional, Accelerated, and BS Completion programs for RNs.

Bachelor of Science (BS) Completion: Students interested in the BS Completion program must have completed an Associate degree in Nursing (Associate of Science or Associate of Arts) and have a current, unencumbered Idaho Registered Nurse (RN) license. Students apply for admission to the nursing program; those students admitted to the program will then begin the program in the following 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 School of Nursing by mid March to ensure consideration for enrollment. Applicants will be notified of the results of the review process by mid April. Please see the School of Nursing website (www.isu.edu/nursing/) for all the details about the Traditional, Accelerated, and BS Completion programs for RNs.

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" (75 percent) 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 in Fall, 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
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<tr>
<td>&amp; 1101L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 2221</td>
<td>Introductory Microbiology &amp; Introductory Microbiology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 2221L</td>
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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
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<tr>
<td>BIOL 3302</td>
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<td>Introduction to General Chemistry</td>
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<td>or CHEM 1111</td>
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<td>and General Chemistry I Lab</td>
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<td>PSYC 1101</td>
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<tr>
<td>PSYC 2225</td>
<td>Child Development</td>
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</tbody>
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Cultural Diversity Course - See General Education Requirements for Objective 9 in the Catalog (Satisfies General Education Objective 9)

B. Set B Prerequisite Courses for Traditional Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>Introduction to Organic and Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(Satisfies General Education Objective 5)</td>
<td></td>
</tr>
<tr>
<td>CHEM 1103</td>
<td>Introduction to General Organic and Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Laboratory (Satisfies General Education Objective 5)</td>
<td></td>
</tr>
<tr>
<td>NTD 3340</td>
<td>Nutrition for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>LLIB 1115</td>
<td>Introduction to Information Research</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(Satisfies General Education Objective 8)</td>
<td></td>
</tr>
<tr>
<td>PHIL 2230</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(Satisfies General Education Objective 3)</td>
<td></td>
</tr>
</tbody>
</table>

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.

For Accelerated 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" (75 percent) 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

BIOL 1101 & 1101L  
Biology I and Biology I Lab 4

BIOL 2221 & 2221L  
Introductory Microbiology and Introductory Microbiology Laboratory 4

BIOL 3301 & 3301L  
Anatomy and Physiology and Anatomy and Physiology Lab 4

BIOL 3302 & 3302L  
Anatomy and Physiology and Anatomy and Physiology Lab 4

CHEM 1101  
Introduction to General Chemistry 3-5

or CHEM 1111 & 1111L  
General Chemistry I and General Chemistry I Lab

PSYC 1101  
Introduction to General 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

BIOL 3305  
Introduction to Pathobiology 3

CHEM 1102  
Introduction to Organic and Biochemistry 3

CHEM 1103  
Introduction to General 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  
Introduction to Statistics 3

PPRA 3315  
Pharmacology for Nursing 4

For BS Completion Program Applicants:

Prospective nursing majors must have a minimum combined GPA of 3.0 in 20 of the 38 credits of prerequisite courses listed below combined with their ADN nursing-specific courses to be eligible to apply to the nursing program. Applicants must also complete the prerequisite courses listed below, or equivalents, with a grade of “C” (75 percent) or better. At least 20 credits of prerequisite courses must be completed at the time the application is submitted. Remaining prerequisite courses must be completed before starting in the nursing program, but not necessarily before the application is submitted. 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

BIOL 1101 & 1101L  
Biology I and Biology I Lab 4

BIOL 2221 & 2221L  
Introductory Microbiology and Introductory Microbiology Laboratory 4

BIOL 3301 & 3301L  
Anatomy and Physiology and Anatomy and Physiology Lab 4

BIOL 3302 & 3302L  
Anatomy and Physiology and Anatomy and Physiology Lab 4

PSYC 1101  
Introduction to General Psychology 3

PSYC 2225  
Child Development 3

MATH 1153  
Introduction to Statistics 3

NTD 3340  
Nutrition for Health Professionals 3

PHIL 2230  
Medical Ethics 3

PPRA 3315  
Pharmacology for Nursing 4

Application Process

A. Traditional Program Applicants will be required to submit an application that includes documentation of completion of:

a. Set A prerequisite courses
b. Set B prerequisite courses (completed or in progress)
c. Official transcripts of courses taken at other colleges or universities
d. Any petitions completed for the School of Nursing
e. Test of Essential Academic Skills (TEAS)

B. Accelerated Program Applicants will be required to submit an application that includes documentation of completion of:

a. Set A prerequisite courses
b. Set B prerequisite courses (completed or in progress)
c. Documentation of a previous baccalaureate degree in a field other than nursing
d. Official transcripts of courses taken at other colleges or universities
e. Any petitions completed for the School of Nursing
f. Test of Essential Academic Skills (TEAS)
g. Applicants to the Accelerated program may be contacted for a personal interview

C. BS Completion Program Applicants will be required to submit an application that includes documentation of completion of:

a. Prerequisite courses, completed and in progress
b. Documentation of a previous Associate degree in nursing
c. Official transcripts of courses taken at other colleges or universities
d. Any petitions completed for the School of Nursing
e. Proof of current, unencumbered Idaho RN license

If accepted to any of the nursing programs, all applicants must supply the following items:

a. Criminal Background History Evaluation
b. Health Certification Requirements
c. Current American Heart Association Basic Life Support for Healthcare Providers Cardio-Pulmonary Resuscitation (CPR) Certification

Please see the School of Nursing website (www.isu.edu/nursing/) for more details on the Application process.
Selection Process

Applicant ranking and selection is based upon various factors:

A. For Traditional Program Applicants:
   a. GPA of Set A prerequisite courses
   b. Score of the Test of Essential Academic Skills (TEAS). The “Percentile Rank - Program” score is used for admission ranking

B. For Accelerated Program Applicants:
   a. GPA of Set A prerequisite courses
   b. Score of the Test of Essential Academic Skills (TEAS). The “Percentile Rank - Program” score is used for admission ranking
   c. Personal interview

C. For BS Completion Program Applicants:
   a. GPA among at least 20 of the 38 credits of the prerequisite courses combined with ADN nursing-specific courses

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 year of application.

Reapplication

Students who are not admitted to the semester for which they initially apply must 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, updated health evaluation, current background check, 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 current School of Nursing Application Web page (http://www.isu.edu/nursing/programs.shtml) or if student challenges CHEM 1101 and passes with a grade of "C" or better.

University Courses Required for Major in Nursing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>Introduction to Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 1103</td>
<td>and Introduction to General Organic and Biochemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>LLIB 1115</td>
<td>Introduction to Information Research</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (MATH 1108 prerequisite)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: See University General Education Requirements for Objectives not met by major requirements. CHEM 1101 is waived if student receives a score of 3 or higher on the Advanced Placement Chemistry test in high school or if student challenges CHEM 1101 and passes with a grade of "C" or better.

Required Nursing Courses for Traditional and Accelerated Students

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHS 4426</td>
<td>Evidence Based Research in Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3100</td>
<td>Professional Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3110</td>
<td>Fundamentals of Nursing</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3110L</td>
<td>and Fundamentals of Nursing Lab</td>
<td></td>
</tr>
<tr>
<td>NURS 3120</td>
<td>Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 3120L</td>
<td>and Health Assessment Lab</td>
<td></td>
</tr>
<tr>
<td>NURS 3130</td>
<td>Adult Health Nursing I</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3130C</td>
<td>Adult Health Nursing I Clinical</td>
<td>4</td>
</tr>
<tr>
<td>NURS 3150C</td>
<td>Health Assessment/Fundamentals Clinical</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4130</td>
<td>Adult Health Nursing II</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4140</td>
<td>Child Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4150</td>
<td>Women and Childbearing Family Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4150C</td>
<td>Women and Childbearing Family Nursing Clinical</td>
<td></td>
</tr>
<tr>
<td>NURS 4160</td>
<td>Mental Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4160C</td>
<td>Mental Health Nursing Clinical</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4180</td>
<td>Foundations of Health Informatics for Nurses</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4200</td>
<td>Population Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4200C</td>
<td>Population Health Nursing Clinical</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4220</td>
<td>Leadership and Management in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4420</td>
<td>Professional Nursing Capstone</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4440</td>
<td>Professional Nursing Synthesis</td>
<td>1</td>
</tr>
</tbody>
</table>

Additional Considerations for Nursing Programs

a) All students must first be admitted to the University. Criteria for admission may be obtained from the School 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.

Bachelor of Science in Nursing

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. 47) described in the Academic Information section of this
Required Nursing Courses for BS Completion Students (RN to BSN)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHS 4426</td>
<td>Evidence Based Research in Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3100</td>
<td>Professional Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3120</td>
<td>Health Assessment</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3120L</td>
<td>Health Assessment Lab</td>
<td>1</td>
</tr>
<tr>
<td>NURS 4180</td>
<td>Foundations of Health Informatics for Nurses</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4200</td>
<td>Population Health Nursing</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 4200C</td>
<td>and Population Health Nursing Clinical</td>
<td></td>
</tr>
<tr>
<td>NURS 4220</td>
<td>Leadership and Management in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4440</td>
<td>Professional Nursing Synthesis</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition to these courses, BS Completion students are required to complete other university and nursing courses. An individualized program of study will be developed for each BS Completion student.

Progression requirements:
- Students apply to the nursing program in the spring semester of the sophomore year.
- Students must be accepted into the nursing program to complete the 4 semesters of nursing courses for the Traditional program and 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” or better.

Traditional Bachelors in Nursing

See website (http://www.isu.edu/nursing/index.shtml) for more details on admission. Most courses must be completed in sequence. Meet with an advisor for planning a course of study. Students need to be admitted to the Nursing program to take Nursing courses.

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>4</td>
<td>BIOL 2221</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1101L</td>
<td>Partially satisfies General Education Objective 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Partially satisfies General Education Objective 5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Satisfies General Education Objective 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>LLIB 1115</td>
<td>Satisfies General Education Objective 8</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Accelerated Bachelors in Nursing

See website (http://www.isu.edu/nursing/index.shtml) for more details on admission.

Bachelors of Science Nursing Completion Program for RNs

Programs of study will vary by student. See website (http://www.isu.edu/nursing/index.shtml) for more details on admission.

Courses

NURS 2204 Concepts of Nursing Practice: 4 semester hours.
Introduces fundamental nursing skills and analyzes theoretical foundations, historical and social forces affecting the evolution of the nursing profession and their impact on health care. The professional nurse's role, health promotion, the nursing process, and teaching and learning are presented through discussion and simulation. COREQ: NURS 2204L. PREREQ: Accelerated students. S
NURS 2204L Concepts of Nursing Practice Lab: 2 semester hours.
Application and practice of fundamental nursing skills. PREREQ: Acceptance into BS with a major in Nursing program. COREQ: NURS 2200 and NURS 2204. S

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. Equivalent to NURS 2204. PREREQ: Acceptance into BS with a major in nursing program. F, 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. PREREQ: Acceptance into nursing program. F, 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. PREREQ: Acceptance into Nursing program. F, 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. PREREQ: Acceptance into BS with major in Nursing program. F, 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. PREREQ: Acceptance into Accelerated Nursing or Traditional Nursing program. F, 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. PREREQ: NURS 3110 and NURS 3120. F

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. Up to one credit occurring in the lab/simulation setting. COREQ: NURS 3130. PREREQ: NURS 3110L and NURS 3120L. F

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. PREREQ: Admission to the BS with major in Nursing program. F, 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. PREREQ: MATH 1153, NURS 2200, and acceptance into BS with a major in Nursing program. F, S, Su

NURS 3372 Nursing Care of the Older Adult: 2 semester hours.
Use of geriatric nursing principles to help older adults. PREREQ: NURS 2200 and acceptance into BS with a major in Nursing program. F

NURS 3381 Care of the Acutely Ill Child and Family: 1-2 semester hour.
Application of the nursing process, in providing care for children and their families with an emphasis on acute illnesses or acute episodes of chronic illness in a tertiary care setting. A nursing elective course. PREREQ: Permission of instructor. Su

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 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. PREREQ: NURS 3130. S

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. PREREQ: NURS 3120. S

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. PREREQ: NURS 4140. F, S

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. PREREQ: NURS 4140. F, S

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. PREREQ: Admission to the Bachelor of Science with a major in Nursing Program. 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. PREREQ: Acceptance into the BS with a major in Nursing program. 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. PREREQ: Acceptance into BS with a major in Nursing program. F, S

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. PREREQ: Acceptance into the BS with a major in Nursing program. F

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. PREREQ: Acceptance into the BS with a major in Nursing program. F

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. PREREQ: NURS 4180. S

NURS 4416 Health Care Informatics Nursing: 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: Acceptance into BS with a major in Nursing program and permission of instructor. F, S

NURS 4417 Interdisciplinary Evaluation: 1 semester hour.

NURS 4418 Leadership and Management: 3 semester hours.
Fundamental knowledge of leadership and management theories to prepare professional nurses to function in any health care setting. Includes personal career development principles. PREREQ: NURS 3374 and acceptance into BS with a major in Nursing program. COREQ: NURS 4418L. F, S, Su

NURS 4418L Leadership and Management Lab: 2 semester hours.
Application of leadership and management theories to prepare professional nurses to function in any health care setting. PREREQ: NURS 3371 and acceptance into BS with a major in Nursing program. COREQ: NURS 4418. F, S, Su

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 is a capstone clinical practice experience that can only be taken after completion of all other courses in the baccalaureate curriculum. PREREQ: Enrolled in final semester of BS in Nursing major program and approval of instructor. S

NURS 4428 Holistic Health Care: 2 semester hours.
Introduction of world health beliefs, evolving practices complementary to western medicine and health care. A nursing elective course. Also offered for no credit as Holistic Health, ISU Continuing Education/Special Programs. S

NURS 4430 Nursing Care of the Critically Ill Adult and Family: 3 semester hours.
Theoretical application of the nursing process with a focus on care of critically ill adults and families with an emphasis on acute illness or acute episodes of chronic illness. A nursing elective course. PREREQ: Permission of instructor. D

NURS 4431 Nursing Care of the Critically Ill Adult and Family Practicum: 2 semester hours.
Clinical application of the nursing process with a focus on care of critically ill adults and families with an emphasis on acute illness or acute episodes of chronic illness. A nursing elective course. PREREQ: Approval 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. PREREQ: Admission to BS with major in Nursing program and approval of instructor. S

NURS 4480 Genetics for Health Care: 3 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. Su

NURS 4491 Independent Study in Nursing: 1-3 semester hour.
Independent study in a specific area of nursing of special interest. PREREQ: Permission of the School of Nursing. F, S
Dental Hygiene

Faculty

Interim Chair and Associate Professor
Calley

Professor
Hodges

Associate Professors
Freudenthal
Gurenlian
Rogo

Assistant Professors
Agado
Garland
T. Johnson
Portillo

Clinical Associate Professors
Ellis
Long-Woodhouse

Clinical Assistant Professors
Biorn
Zollinger

Adjunct Faculty
Bono
Boyer
E. Bringhurst
L. Bringhurst
Eisenhauer
D. Godfrey
M. Godfrey
Gregson
Hauser
Hooker
Peterson
Reddish
Ruth
Sheppard
Spain
Stephenson
Stevens
Williams

Affiliate Faculty
Luetdke
Parrish
Salisbury

Emeritae
Bowen
Christie
Herzog
Kawamura
Paarmann

Department of Dental Hygiene

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 above, 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 goals:

- **Goal 1.** To comprehensively prepare dental hygiene graduates who possess the knowledge, values, ethics, and skills to provide optimal dental hygiene care through demonstrated competence as defined by the “Department of Dental Hygiene Competency Document.”

- **Goal 2.** To offer a baccalaureate dental hygiene program sufficient in scope and depth to prepare graduates with a broad general education and high quality professional education that fosters their ability to adapt to the future, provide leadership in dental hygiene, and enroll in graduate level education.

- **Goal 3.** To create knowledge through faculty research programs that are of sufficient depth to contribute to the art and science of dental hygiene, to dental hygiene practice and to the delivery of improved health care in Idaho and the nation.

- **Goal 4.** To foster professional behaviors consistent with legal and ethical expectations essential to the dental hygiene profession and the public through professional activities, continuing education programs, and community service.

- **Goal 5.** To remain responsive to program expansion according to the needs of Idaho and the western region of the United States, as well as to the future of the dental hygiene profession.
• Goal 6: To operate and maintain the on-campus clinical facility to provide quality oral health care while fulfilling the program’s educational mission.

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: http://www.isu.edu/departments/dentalhy/.

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, the District of Columbia, Puerto Rico, Canada and abroad. 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.

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.

Traditional Baccalaureate Program
Admission 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. Application materials are submitted directly to the Department of Dental Hygiene. Applications for the dental hygiene program and information regarding current admission criteria and procedures can be obtained from the Dental Hygiene website at http://www.isu.edu/departments/dentalhy, or directly from the department. 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.

Program Degree Completion for Transfer Students with Entry-Level Associate Degree
Admission Requirements
• Graduation from an American Dental Association, Commission on Dental Accreditation, entry-level program with an Associate of Science, Associate of Arts & Sciences, Associate of Applied Science degree or Certificate in Dental Hygiene
• Active dental hygiene license
• Successful completion of the National Dental Hygiene Board Examination
• Minimum Grade Point Average of 2.5

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.

The following limits are set for the transfer of credits to the B.S. degree requirements:
• No more than 70 credits from an Idaho community/junior college
• No more than 60 credits from a community/junior college from another state
• Courses with a grade of D will not be counted towards the B.S. degree

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. 47) 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2221 &amp; 2221L</td>
<td>Introductory Microbiology and Introductory Microbiology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3301 &amp; 3301L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1102 &amp; CHEM 1103</td>
<td>Introduction to Organic and Biochemistry and Introduction to General Organic and Biochemistry Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
<tr>
<td>DENT 2201</td>
<td>Principles of Dental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 1101 or ENGL 1101P</td>
<td>English Composition or English Composition Plus</td>
<td>3-4</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NTD 3340</td>
<td>Nutrition for Health Professionals</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (satisfies Goal 3)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

IN ADDITION:

• Any university General Education Objectives (p. 47) 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.

Bachelor of Science in Dental Hygiene

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DENT 3307</td>
<td>Prevention and Management of Dental Emergencies</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3308</td>
<td>Oral Histology and Embryology</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3309</td>
<td>General and Oral Pathology</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3311</td>
<td>Tooth Morphology</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3312</td>
<td>Head and Neck Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>DENT 3313</td>
<td>Clinical Dental Hygiene I</td>
<td>3</td>
</tr>
<tr>
<td>DENT 3313C</td>
<td>Clinical Dental Hygiene I Clinic</td>
<td>3</td>
</tr>
<tr>
<td>DENT 3314</td>
<td>Clinical Dental Hygiene II</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3314C</td>
<td>Clinical Dental Hygiene II Clinic</td>
<td>3</td>
</tr>
<tr>
<td>DENT 3315</td>
<td>Preventative Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3318</td>
<td>Oral Radiology</td>
<td>2</td>
</tr>
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<td>DENT 3318L</td>
<td>Oral Radiology Laboratory</td>
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</tr>
<tr>
<td>DENT 3319</td>
<td>Dental Materials and Adjunct Procedures</td>
<td>4</td>
</tr>
<tr>
<td>DENT 3320</td>
<td>Pain Management</td>
<td>2</td>
</tr>
<tr>
<td>DENT 3321</td>
<td>Periodontology</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4401</td>
<td>Research Methods</td>
<td>3</td>
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<tr>
<td>DENT 4402</td>
<td>Advanced Periodontology</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4403</td>
<td>Advanced Clinical Theory I</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4403C</td>
<td>Advanced Clinical Practice I Clinic</td>
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</tr>
<tr>
<td>DENT 4404</td>
<td>Advanced Clinical Theory II</td>
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<td>DENT 4404C</td>
<td>Advanced Clinical Practice II Clinic</td>
<td>4</td>
</tr>
<tr>
<td>DENT 4408</td>
<td>Ethical and Legal Principles</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4411</td>
<td>Application of Restorative Therapies</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4411C</td>
<td>Restorative Care I</td>
<td>1</td>
</tr>
<tr>
<td>DENT 4412C</td>
<td>Restorative Care II</td>
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</tr>
<tr>
<td>DENT 4413</td>
<td>Community Health</td>
<td>3</td>
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<tr>
<td>DENT 4414</td>
<td>Community Outreach Experiences</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4421</td>
<td>Leadership and Health Policy</td>
<td>2</td>
</tr>
<tr>
<td>PPRA 3314</td>
<td>Basic and Applied Pharmacology for Dental Hygiene</td>
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Additional Required Course

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<tr>
<th>Course</th>
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<tr>
<td>DENT 3330C</td>
<td>Interim Clinic</td>
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<tr>
<td>DENT 3340C</td>
<td>Enhanced Strategies in Clinical Care</td>
<td>1</td>
</tr>
<tr>
<td>DENT 4481</td>
<td>Independent Studies in Dental Hygiene</td>
<td>1-3</td>
</tr>
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</table>

Dental Hygiene Electives

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DENT 4421</td>
<td>Educational Strategies</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4423</td>
<td>Applied Educational Strategies</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4424</td>
<td>Principles of Practice Management</td>
<td>2</td>
</tr>
<tr>
<td>DENT 4425</td>
<td>Applied Practice Management</td>
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</table>

Graduation Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Prerequisite courses (department requirements and general education)</td>
<td>46</td>
</tr>
<tr>
<td>Required dental hygiene courses</td>
<td>73</td>
</tr>
<tr>
<td>Other courses (including general education)(minimum of 12 cr)</td>
<td>12</td>
</tr>
<tr>
<td>Total Hours</td>
<td>131</td>
</tr>
</tbody>
</table>

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: 2 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: 2 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 and DENT 3308. 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. PREREQ: DENT 3307 and DENT 3308. 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.


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 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 Dental Materials and Adjunct Procedures: 4 semester hours.

Survey of physical and chemical properties of dental materials and application of 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 3313C. 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. Su

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 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 hour.

This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

DENT 4401 Research Methods: 3 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.
DENT 4404 Advanced Clinical Theory II: 3 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 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. Su

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 4412 Dental Specialties: 1 semester hour.
Didactic and laboratory application of information related to the dental specialties. Emphasis is placed on those specialties not covered elsewhere in the curriculum. PREREQ: DENT 4411. COREQ: DENT 4412C. S

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: 3 semester hours.
Introduction to Dental Public Health: core functions of public health agencies, health care disparities, current trends, data methods and career opportunities in alternative practices for public health hygienists. Health behavior theories, program development and teaching strategies to enhance health promotion and oral health education programs are discussed. 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: 3 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; instructional strategies and delivery methods 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 4423 Applied Educational Strategies: 3 semester hours.
Practical application of instructional design, educational principles and methods for classroom and clinical teaching with a variety of population groups. Restricted to senior year professional status or Dental Hygiene major. PREREQ: DENT 4422. S

DENT 4424 Principles of Practice Management: 3 semester hours.
Current professional issues from a global perspective influencing dental hygiene practice are discussed. Administrative roles and responsibilities of planning, implementing, managing and evaluating health care programs and practices are explored. Financial aspects of practice management are included. Restricted to senior year professional status or Dental Hygiene major. F

DENT 4425 Applied Practice Management: 3 semester hours.
Practical application of administrative roles and responsibilities for policy development, business management, implementation and evaluation of health care programs and practices. Restricted to senior year professional status or Dental Hygiene major. PREREQ: DENT 4424. S

DENT 4481 Independent Studies in Dental Hygiene: 1-3 semester hour.
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Department of Dental Sciences

Faculty
Chair, IAGD Program Director, and Associate Professor
Crawford

IAGD Meridian Clinic Directors
Brady
Powell

IAGD Director and Adjunct Instructor
Ybarguen

Assistant Professor
Pilarski

Adjunct Faculty
Nielsen

Affiliate Faculty
Bruce
Chapman
Comstock
DaBell
DiGrazia
Doyle
Duncan
Ellis
Eppich
Ferguson
Frandsen
Hanson
Hopkins
Jepsen
Johnson
Kempers
Klingler
Matunas
McMinn
McMurray
Meadors
Morrison
Moulton
Nelson
Newton
Polson
Porter
Ruppel
Seyler
Staats
Sutton
Taybos
Vania
Vernon
Zirker

The Department of Dental Sciences administers the Idaho Dental Education Program (IDEP) for predoctoral 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 school also administers the Medical Residency Program leading to a certificate in family practice and the Advanced General Dentistry Residency Program leading to a certificate.

The Idaho Dental Education Program is designed to provide residents of Idaho with access to a 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.

The Department of Dental Sciences
921 S 8th Ave Stop 8088
Pocatello ID 83209-8088
Phone: (208) 282-3289
http://www.isu.edu/departments/dentsci

Idaho Dental Education Program

Required Basic Sciences Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 4400</td>
<td>Oral Histology and Embryology</td>
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<td>BIOL 4419</td>
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<td>BIOL 4432</td>
<td>Biochemistry</td>
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<td>BIOL 4440</td>
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<td>BIOL 4460</td>
<td>Neuroscience</td>
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<tr>
<td>BIOL 4464</td>
<td>Lectures in Human Physiology</td>
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**Required Dental Sciences Courses**

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<tr>
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<tbody>
<tr>
<td>IDEP 4413</td>
<td>Dental Anatomy Lecture I</td>
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<td>IDEP 4414</td>
<td>Dental Anatomy Laboratory</td>
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<tr>
<td>IDEP 4415</td>
<td>Dental Materials Science I</td>
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<tr>
<td>IDEP 4417</td>
<td>Interpersonal Relationships and Communication</td>
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<td>IDEP 4423</td>
<td>Preventative Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>IDEP 4425</td>
<td>History of Dentistry</td>
<td>1</td>
</tr>
<tr>
<td>IDEP 4426</td>
<td>Community Dentistry Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>IDEP 4433</td>
<td>Oral Hygiene Technique</td>
<td>1</td>
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<tr>
<td>IDEP 4434</td>
<td>Dental Materials Science II</td>
<td>3</td>
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<tr>
<td>IDEP 4435</td>
<td>Occlusion Laboratory</td>
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<tr>
<td>IDEP 4444</td>
<td>Values and Ethics</td>
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<tr>
<td>IDEP 4454</td>
<td>Occlusion Lecture</td>
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<td>IDEP 4463</td>
<td>Dental Radiology I</td>
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<td>IDEP 4464</td>
<td>Dental Radiology Technique</td>
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<td>Dental Radiology II</td>
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<td>NTD 4495</td>
<td>Dental Nutrition</td>
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**Optional Dental Sciences Courses**

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<tr>
<td>IDEP 6617</td>
<td>- Education Program *</td>
<td>2</td>
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</tbody>
</table>

* See Graduate Catalog (http://coursecat.isu.edu/graduate) for course information.

**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 student 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
Department of Physician Assistant Studies

Faculty

Program Director and Associate Professor
Phelps

Program Associate Director and Clinical Assistant Professor
Sparrell

Medical Director, Caldwell
Anstett

Medical Director, Meridian
McClusky

Medical Director, Pocatello
D'Souza

Assistant Professors
Forbes
Sierra

Clinical Assistant Professors
Johnson
Martin
Mirly
Papa
Smith
Talford

Instructor
Allen

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, Anatomy, Physiology, 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, http://isu.edu/paprog/.

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).

Courses

PAS 4489 Independent Problems in Physician Assistant Studies: 1-3 semester hour.
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
Communication Sciences and Disorders

Faculty

Chair and Professor
Kangas

Associate Chair and Professor
Johnson

Professor
Seikel

Associate Professors
Brockett
Sanford

Assistant Professors
Altieri
Bargen
Blaiser
Hudock
Ogiela
Ramsdell-Hudock

Clinical Professors
Guyan
Holst
Knudson
Loftin
Whitaker

Clinical Associate Professors
O’Donnell
S. Smith
Turner

Clinical Assistant Professors
Hansen
Hardy
Melton
Miller
W. Morgan
E. Morgan
Pierce Ament
C. Smith
Tucker
Van Donsel

Emeriti
Bain
Schow
Smedley
Sorensen
Wallber
Weston
Willer

School of Rehabilitation and Communication Sciences

The School of Rehabilitation and Communication Sciences (SRCS) is composed of 2 departments with 5 programs. The Department of Communication Sciences and Disorders (CSD) consists of programs in Audiology, Sign Language Interpreting, and Speech-Language Pathology. The Department of Physical and Occupational Therapy (DPOT) includes programs in Occupational Therapy and in Physical Therapy. The programs within the School reflect the organization found in many rehabilitation facilities, acknowledging the strong relationships found among these disciplines.

Baccalaureate Programs

The School of Rehabilitation and Communication Sciences is home to 2 baccalaureate degrees (BS in Communication Sciences & Disorders; BS in Sign Language Interpreting), and one Associate’s degree (AS in Sign Language Studies).

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 which 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. Many departmental classes are taught via distance learning technology with clinical and academic faculty in 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), Division of Health Sciences, Department of Communication Sciences and Disorders.

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. It is recommended that prospective transfer students complete CSD 2205 in the second semester of their sophomore year. 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) 373-1725 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 11 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 http://www.isu.edu/spchpath/. 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.

Admission to Junior Level Classes on Pocatello Campus

Prospective students on the Pocatello campus are expected to have a cumulative GPA of 3.0 or better after completing 40 semester hours before registering for CSD 3321 and/or CSD 3330. Interested students with GPAs of 2.75 or better may petition the department chair to enroll in junior level courses through a letter and supporting documentation.

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 208-373-1725 or go to the Department Webpage at http://www.isu.edu/csed/.
Bachelor of Science in Communication Sciences and Disorders, with Emphasis in Pre-Audiology or Pre-Speech-Language Pathology

The following courses are required in addition to the university’s General Education Requirements (p. 47). Students must choose either the Pre-Audiology Emphasis or the Pre-Speech-Language Pathology Emphasis.

**Required Departmental Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CSD 1126</td>
<td>Deaf Studies</td>
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<tr>
<td>CSD 1151</td>
<td>American Sign Language I</td>
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<td>American Sign Language I Laboratory</td>
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<td>CSD 2205</td>
<td>Introduction to Professions in Comm.</td>
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<td>CSD 3321</td>
<td>Clinical Phonetics and Phonology</td>
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<tr>
<td>CSD 3330</td>
<td>Language Science and Development</td>
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<tr>
<td>CSD 3341</td>
<td>Audiology and Hearing Science</td>
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<tr>
<td>CSD 4405</td>
<td>Neuroscience for Communication Disorders</td>
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<tr>
<td>CSD 4417</td>
<td>Interdisciplinary Evaluation Team</td>
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<tr>
<td>CSD 4435</td>
<td>Speech and Hearing Science</td>
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<td>CSD 4445</td>
<td>Aural Rehabilitation</td>
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<td>CSD 4460</td>
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**Other Required Courses**

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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
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<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
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<tr>
<td>HCA 1110</td>
<td>Introduction to the Allied Health Professions</td>
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<td>MATH 1153</td>
<td>Introduction to Statistics</td>
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<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
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<tr>
<td>PSYC 2225</td>
<td>Child Development</td>
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<tr>
<td>or PSYC 3332</td>
<td>Psychology of Adolescence</td>
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</tr>
<tr>
<td>SOC 2248</td>
<td>Critical Analysis of Social Diversity</td>
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**Recommended Course**

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<td>ANTH/ENGL 1107</td>
<td>Nature of Language</td>
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**Pre-Audiology Emphasis**

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**

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<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>Deaf Culture and Community</td>
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<td>CSD 3340</td>
<td>Communication Disorders Lifetime Pers.</td>
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</tr>
<tr>
<td>CSD 4415</td>
<td>Clinical Practicum in Audiology</td>
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<td>CSD 4416</td>
<td>Audiology Methods and Applications</td>
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<td>Plus electives</td>
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<tr>
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**Elective Courses:**

Electives not on the list may be taken with Audiology Faculty approval.

<table>
<thead>
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<tr>
<td>BIOL 3358</td>
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<tr>
<td>BIOL 4415L</td>
<td>Human Neurobiology Lab</td>
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<tr>
<td>BIOL 4453</td>
<td>Foundations in Neuroscience</td>
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</tr>
<tr>
<td>BIOL 4460</td>
<td>Neuroscience</td>
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</tr>
<tr>
<td>COUN 3300</td>
<td>Interpersonal Skills in Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>CSD 3315</td>
<td>Clinical Processes Pediatric</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3325</td>
<td>Speech Sound Development and Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3335</td>
<td>Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4420</td>
<td>Clinical Processes Adult</td>
<td>3</td>
</tr>
<tr>
<td>CSD 4425</td>
<td>Speech Language Pathology Methods and Application</td>
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<tr>
<td>DHS 4401</td>
<td>Mindfulness in Health Science</td>
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<tr>
<td>DHS 4402</td>
<td>Survey of Aging Issues</td>
<td>3</td>
</tr>
<tr>
<td>DHS 4406</td>
<td>The Mindful Practitioner</td>
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<tr>
<td>DHS 4407</td>
<td>Experience in Human Anatomy</td>
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<td>HPHY 3300</td>
<td>Medical Electronics</td>
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<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics</td>
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<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
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<tr>
<td>PHYS 1112</td>
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<td>PSYC 3344</td>
<td>Adult Development and Aging</td>
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</tr>
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<td>PSYC 4446</td>
<td>Cognitive Process</td>
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<tr>
<td>SPED 3330</td>
<td>The Exceptional Child</td>
<td>4</td>
</tr>
</tbody>
</table>

**Pre-Speech Language Pathology Emphasis**

Students choosing the Emphasis in Pre-Speech-Language Pathology must complete the degree requirements above and the Required Courses listed below.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 3315</td>
<td>Clinical Processes Pediatric</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3325</td>
<td>Speech Sound Development and Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3335</td>
<td>Language Disorders</td>
<td>3</td>
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<tr>
<td>CSD 4420</td>
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<td>Subtotal</td>
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</table>

**Recommended Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CSD 4425</td>
<td>Speech Language Pathology Methods and Application</td>
<td>3</td>
</tr>
</tbody>
</table>

**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 Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 3308</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>CSD 3330</td>
<td>Language Science and Development</td>
<td>3</td>
</tr>
<tr>
<td>CSD 3351 &amp; 351L</td>
<td>Linguistics of American Sign Language</td>
<td>4</td>
</tr>
<tr>
<td>CSD 3351</td>
<td>Linguistics of American Sign Language Lab</td>
<td></td>
</tr>
</tbody>
</table>
Required Courses

minor and be assigned a minor advisor.

Procedure: Interested students should contact the department to declare a

Education Requirements (p. 47): The following courses are required in addition to the university’s General

Associate of Science in Sign Language Studies

The following courses are required in addition to the university’s General Education Requirements (p. 47):

CSD 1151 American Sign Language I 3
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 2250L Signing Seminar Laboratory 1
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 2257 Deaf Culture and Community 3
CSD 4435 Speech and Hearing Science 3
CSD 3341 Audiometry and Hearing Science 3
CSD 4420 Clinical Processes Adult 3
SPED 3330 The Exceptional Child 4

Deaf Education Minor (non-certification)

CSD 1126 Deaf Studies 1
CSD 2205 Introduction to Professions in Communication Sciences 3
CSD 2257 Deaf Culture and Community 3
CSD 3330 Language Science and Development 3
CSD 4456 Psychosocial Aspects of Deafness 3
CSD 4460 Educational Audiology 3
Electives (8 credits minimum) 8

CSD 1151 American Sign Language I 3
CSD 1152 American Sign Language II 3
CSD 2251 American Sign Language III 4
CSD 2252 American Sign Language IV 4
CSD 4405 Neuroscience for Communication Disorders 3

Course: CSD 1126 Deaf Studies: 1 semester hour.

Manual communication course introduces the student to ASL. Students experience the language directly without presentation of English equivalents, emphasizing development of receptive language and vocabulary expansion. 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

CSD 1151 American Sign Language I: 3 semester hours.

Assignments to apply principles from CSD 1151. COREQ: CSD 1151. F

CSD 1152 American Sign Language II: 3 semester hours.

Emphasis on receptive and expressive skills to achieve fluency on a grammatically appropriate level. Students are introduced to videotaping as a learning tool. May be repeated once to improve a grade for a maximum of 3 credits. PREREQ: CSD 1151 and CSD 1151L. COREQ: CSD 1152L. Partially satisfies Objective 4 of the General Education Requirements. S

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
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.
Improve reception and expressive fingerspelling skills. Emphasis on whole-word and phrase recognition, and on reading fingerspelling and numbers embedded in signed sentences. Use ASL number systems including cardinal, ordinal, and informational numbers relating to time, temporal-aspect signs, measurements, and math terms. PREREQ: Permission of instructor. S

CSD 2250 Signing Seminar: 3 semester hours.
This course introduces and discusses sign systems, ethical considerations for signers, employment options, and support or advancement with signing profession options and signing environments. PREREQ: CSD 1151 and permission of instructor. S

CSD 2250L Signing Seminar Laboratory: 1 semester hour.
Provides experiences in support of CSD 2250 concepts and skills. PREREQ: CSD 1151 and permission of instructor. COREQ: CSD 2250. S

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 2257 Deaf Culture and Community: 3 semester hours.
An information course emphasizing aspects of deafness and deaf culture that are related to language study and minority group dynamics. PREREQ: CSD 1151 and CSD 1151L. F

CSD 3315 Clinical Processes Pediatric: 3 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 3321L Clinical Phonetics and Phonology Lab: 1 semester hour.
Required laboratory portion of CSD 3321 for emphasis in pre-speech-language pathology. Not required for Pre-Audiology emphasis. Skill development in use of International Phonetic Alphabet. COREQ: CSD 3321. 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: CSD 3321 with a grade of ‘C’ or better or permission of instructor. S

CSD 3330 Language Science and Development: 3 semester hours.
Analysis of the development of systems of communication: phonologic, morphologic, syntactic, semantic, pragmatic, and relevant nonverbal and cognitive development in normal children. Review of current theories and research. F

CSD 3335 Language Disorders: 3 semester hours.
Study of children with developmental delays and disorders of language. Includes etiology, characteristics, assessment and intervention principles. Introduction to language diversity. PREREQ: CSD 3330 or permission of instructor. S

CSD 3340 Communication Disorders Lifetime Perspective: 3 semester hours.
An overview of speech and language disorders across the age span. Assessment, treatment, and referral options will be presented. Class intended for students not pursuing a speech language pathology graduate degree. PREREQ: CSD 3321 and CSD 3330 or permission of instructor. S

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 3351 Linguistics of American Sign Language: 4 semester hours.
Students are introduced to linguistics and how it applies to American Sign Language. Topics covered include: phonology, morphology, syntax, and semantics of ASL. Students will apply these concepts in presentations, while working with a language mentor, while memorizing selected ASL texts and when studying units about Deaf culture and/or history. COREQ: CSD 3351L. PREREQ: CSD 2252. F

CSD 3351L Linguistics of American Sign Language Lab: 0 semester hours.
Assignments to apply principles from CSD 3351. F

CSD 3352 Depiction and Advanced Discourse in American Sign Language: 4 semester hours.
This course aims to give advanced students of ASL a strong foundation in the elements of depiction. They will learn how depiction is used in ASL as a visual representation of aspects of an entity, event or abstract concept using components that are accessible in the immediate environment. Through the use of materials developed by native users of ASL, students will analyze and replicate discourses found in specific settings and learn advanced vocabulary. COREQ: CSD 3352L. PREREQ: CSD 3351. S

CSD 3352L Depiction and Advanced Discourse in American Sign Language Lab: 0 semester hours.
Assignments to apply principles from CSD 3352. S

CSD 3353 Interpreting Seminar: 4 semester hours.
Presents theoretical models, concepts, language skills and ethical considerations necessary to render the source language into an accurate, culturally appropriate equivalent in the target language. PREREQ: CSD 2250, CSD 2250L, CSD 3352, and permission of instructor. F

CSD 3353L Interpreting Seminar Laboratory: 0 semester hours.
Assignments to apply principles in CSD 3353. F
CSD 3354 Interpreting: 4 semester hours.
This course introduces practice and processing of interpreting in educational settings. Voice-to-sign and sign-to-voice in ASL are the focus in practical activities and theoretical models are reinforced. COREQ: CSD 3354L. PREREQ: CSD 3353 and permission of instructor. S

CSD 3354L Interpreting Laboratory: 0 semester hours.
Assignments to apply principles in CSD 3354. COREQ: CSD 3354. S

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 hour.
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 audiology clinical procedures. PREREQ: Completion of CSD 3341 and permission of instructor. F

CSD 4417 Interdisciplinary Evaluation Team: 1 semester hour.

CSD 4420 Clinical Processes Adult: 3 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: 3 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 4435 Speech and Hearing Science: 3 semester hours.
Introduction to the anatomy and physiology of speech production. Topics include respiratory dynamics, laryngeal functions, articulatory dynamics, hearing mechanism, and the neurophysiology of speech and hearing. COREQ: CSD 4435L. S

CSD 4435L Speech and Hearing Science Laboratory: 1 semester hour.
Required laboratory portion of CSD 4435. COREQ: CSD 4435. S

CSD 4440 Special Topics Workshop: 1-3 semester hour.
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 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. PREREQ: CSD 3341 or permission of instructor. S

CSD 4453 Transliterating I: Voice to Sign: 4 semester hours.
Transliterating is a sign system incorporating elements of American Sign Language and English language structure. This course emphasizes and enhances skills that include a complex combination of features from ASL and English that are accomplished by conscious strategies used by the transliterator. A brief introduction to Manually Coded English systems is included. PREREQ: CSD 3354. COREQ: CSD 4453L. F

CSD 4453L Transliterating I: Voice to Sign Laboratory: 0 semester hours.
Assignments to apply principles taught in CSD 4453. COREQ: CSD 4453. F

CSD 4454 Transliterating II: Sign to Voice: 4 semester hours.
Continuation of the theoretical and practical “hands-on” approach to sign language transliterating. Render contact varieties and signed English messages into spoken English. COREQ: CSD 4454L. PREREQ: CSD 3354. S

CSD 4454L Transliterating II: Sign to Voice Laboratory: 0 semester hours.
Assignments to apply principles taught in CSD 4454. COREQ: CSD 4454. S

CSD 4455 Creative Interpreting: 3 semester hours.
Techniques of facial expression, body movements, and ASL features as used in performing arts settings. Skills are developed through pantomime, song, and other activities. PREREQ: CSD 1151, CSD 1152, CSD 2251, CSD 2252, CSD 3351, CSD 3352. F

CSD 4456 Psychosocial Aspects of Deafness: 3 semester hours.
Psychological, educational, and social influences of the hearing community on deaf persons and the structure of the deaf community as a socio-cultural entity. PREREQ: CSD 3351 with a B or better. F

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 4461 The Professional Interpreter: 3 semester hours.
Ethical guidelines and standards of conduct expected of a professional interpreter. Acquaints students with theoretical issues involved in interpreting as a profession. PREREQ: Permission of instructor. AF

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 4473 Collaboration: 2 semester hours.
Presents theoretical models, principles, practices pertaining to collaborating in educational settings. Relevant concepts from the social/behavioral sciences will be examined through discussions, hypothetical situations, and role playing. PREREQ: Permission of instructor. S

CSD 4474 Educational Interpreting Internship: 4-8 semester hour.
Student will be assigned to elementary/secondary or post-secondary setting for a period of weeks to match credit. Assignment includes observation and assuming the role of the interpreter under appropriate supervision. May be repeated for a maximum of 8 credits. PREREQ: Permission of advisor. F, S

CSD 4480 Genetics for Health Care: 3 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. Su

CSD 4482 Independent Study: 1-4 semester hour.
Study of problems selected by students and faculty. May be repeated for up to 8 credits. D

CSD 4491 Seminar: 1-4 semester hour.
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
Department of Physical and Occupational Therapy

Faculty
Chair and Associate Professor
Creelman
OT Program Director and Associate Professor
Gee
Associate Professor
Seiger
Assistant Professor
Kendall
Clinical Associate Professors
Jackman
Thompson
Clinical Assistant Professors
Alexander
Gerber
Lloyd
Peterson
Ralphs
Adjunct Faculty
Anderson
Devine
Groome
Meldrum
Owens
Rodnick
Urfer

School of Rehabilitation and Communication Sciences

The School of Rehabilitation and Communication Sciences (SRCS) is composed of 2 departments with 5 programs. The Department of Communication Sciences and Disorders (CSD) consists of programs in Audiology, Sign Language Interpreting, and Speech-Language Pathology. The Department of Physical and Occupational Therapy (DPOT) includes programs in Occupational Therapy and in Physical Therapy. The programs within the School reflect the organization found in many rehabilitation facilities, acknowledging the strong relationships found among these disciplines.

Baccalaureate Programs

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. The Occupational Therapy Graduate Program is accredited by the Accreditation Council for Occupational Therapy Education.

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 which is of interest to them and which 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 Department of Biological Sciences. 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.

PT 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.

- **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.
MOT Program Prerequisites

- **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**

Applications 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 degree program.

During the first three years of this track 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.

**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
  - 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:
  - economics
  - history
  - education
  - humanities
  - ethics
  - literature
  - fine arts
  - philosophy
  - foreign language

- **HIGHLY RECOMMENDED:**
  - Introductory Physics with Laboratory

**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 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.

**Bachelor of Science in Health Science**

**Concentration 1: Pre-Occupational Therapy**

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.

See the Department of Physical and Occupational Therapy (p. 310) in the School of Rehabilitation and Communication Sciences in the Division of Health Sciences section of the catalog for detailed information about this concentration.

**Required Courses**

**General Education Objectives (min 36 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANTH 2238 Peoples and Cultures of the New World</td>
<td>3</td>
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<tr>
<td>BIOL 3302 Anatomy and Physiology</td>
<td>4</td>
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<tr>
<td>&amp; 3302L Anatomy and Physiology Lab</td>
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<th>Course</th>
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<tbody>
<tr>
<td>CHEM 1111 General Chemistry I</td>
<td>5</td>
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<tr>
<td>&amp; 1111L and General Chemistry I Lab</td>
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<tr>
<td>ENGL 1101 English Composition</td>
<td>3-4</td>
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<tr>
<td>or ENGL 1101P English Composition Plus</td>
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</tr>
<tr>
<td>MATH 1153 Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2225 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3301 Abnormal Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1101 Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>5 additional courses (3 credits each) from economics, education, ethics, fine arts, foreign language, history, humanities, literature, and philosophy</td>
<td>15</td>
</tr>
<tr>
<td>Electives</td>
<td>18-22</td>
</tr>
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**Highly Recommended Electives:**

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 3307 Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1111 General Physics &amp; PHYS 1113 and General Physics I Laboratory</td>
<td>4</td>
</tr>
</tbody>
</table>

See the Bachelor of Science in Health Science (p. 238) in the Division of Health Sciences section of the catalog for additional information.

**Concentration 2: Pre-Occupational Therapy, Accelerated**

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.

See the Department of Physical and Occupational Therapy (p. 310) in the School of Rehabilitation and Communication Sciences in the Division of Health Sciences section of the catalog for detailed information about this concentration.

**Required Courses:**

**General Education Objectives (min 36 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2238 Peoples and Cultures of the New World</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3302 Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 1111 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 1111L and General Chemistry I Lab</td>
<td></td>
</tr>
<tr>
<td>MATH 1153 Introduction to Statistics (Satisfies General Education Objective 9)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3302 Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>ENGL 1101 English Composition</td>
<td>3-4</td>
</tr>
<tr>
<td>or ENGL 1101P English Composition Plus</td>
<td></td>
</tr>
</tbody>
</table>

(The two sets of courses above satisfy General Education Objective 5)
PSYC 3301 Abnormal Psychology I 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

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4474</td>
<td>Human Anatomy Occupational and Physical Therapy</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 4486</td>
<td>Human Systemic Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PTOT 4412</td>
<td>Professional Communication</td>
<td>2</td>
</tr>
<tr>
<td>PTOT 4413</td>
<td>Occupational Therapy Profession</td>
<td>3</td>
</tr>
<tr>
<td>PTOT 4401</td>
<td>Clinical Kinesiology and Biomechanics</td>
<td>4</td>
</tr>
<tr>
<td>PTOT 4402</td>
<td>Clinical Neuroscience</td>
<td>5</td>
</tr>
<tr>
<td>PTOT 4421</td>
<td>Self-Exploration in Occupation</td>
<td>3</td>
</tr>
<tr>
<td>PTOT 4422</td>
<td>Occupational Performance</td>
<td>3</td>
</tr>
<tr>
<td>PTOT 4442</td>
<td>Occupational Performance Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

See the Bachelor of Science in Health Science (p. 238) in the Division of Health Sciences section of the catalog for additional information.

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 hour.**

**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
College of Science and Engineering

Dean: Richard R. Brey, Ph.D., C.H.P. (interim)
Associate Dean: David W. Rodgers, 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 nine Departments: Biological Sciences, Chemistry, Geosciences, Mathematics, Physics, Civil and Environmental Engineering, Electrical Engineering, Mechanical Engineering, and Nuclear Engineering and Health Physics. 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.
The Department of Biological Sciences offers four undergraduate degrees: the B.A. in Biology, the B.S. in Biochemistry (a joint program with the Department of Chemistry and the Department of Biomedical and Pharmaceutical Sciences), the B.S. in Biology, and the B.S. in Microbiology. Within two of the four 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.

**Bachelor of Arts in Biology**

The B.A. in Biology is designed for students who want to pursue either teacher certification in biology or 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. 47) 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 (Biology Education or Natural History). All graduates of this degree program will earn a B.A. in Biology regardless of the concentration selected.

**Required Core Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1102 &amp; 1102L</td>
<td>Biology II and Biology II Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2206 &amp; BIOL 2207</td>
<td>Cell Biology and Cell Biology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2209 &amp; 2209L</td>
<td>General Ecology and General Ecology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
<td>3</td>
</tr>
</tbody>
</table>
BIOL 4491 & BIOL 4492 Seminar and Seminar

Required Supporting Science Courses:

MATH 1160 Applied Calculus
or MATH 1153 Introduction to Statistics
CHEM 1111 General Chemistry I
& 1111L General Chemistry I Lab
CHEM 1112 General Chemistry II
& 1112L General Chemistry II Lab

Concentration in Biology Education

(India 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. 47), students earning a B.A. in Biology in the Biological Education concentration must complete the following requirements.

Required Electives:

Diversity, Ecology, and Evolution Courses:
At least 2 courses with Animal emphasis
At least 2 courses with Plant emphasis

Footnotes

1 See the Suggested Animal and Plant Biology course lists in the Biology Education Concentration above.

Biology Electives (any Biology course): At least 3 courses in 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. 47) 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
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<tr>
<td>&amp; 1101L</td>
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<tr>
<td>BIOL 1102</td>
<td>Biology II and Biology II Lab</td>
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<tr>
<td>&amp; 1102L</td>
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<tr>
<td>BIOL 2206</td>
<td>Cell Biology and Cell Biology Laboratory</td>
<td>4</td>
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<tr>
<td>&amp; BIOL 2207</td>
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<tr>
<td>BIOL 2209</td>
<td>General Ecology and General Ecology Laboratory</td>
<td>4</td>
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<tr>
<td>&amp; 2209L</td>
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<tr>
<td>BIOL 3316</td>
<td>Biometry Laboratory</td>
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<td>BIOL 3358</td>
<td>Genetics</td>
<td>3</td>
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<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4491</td>
<td>Seminar and Seminar</td>
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<tr>
<td>&amp; BIOL 4492</td>
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<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
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<tr>
<td>MATH 3350</td>
<td>Statistical Methods</td>
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<td>CHEM 1111</td>
<td>General Chemistry I and General Chemistry I Lab</td>
<td>5</td>
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<tr>
<td>&amp; 1111L</td>
<td></td>
<td></td>
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<tr>
<td>CHEM 1112</td>
<td>General Chemistry II and General Chemistry II Lab</td>
<td>4</td>
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<tr>
<td>&amp; 1112L</td>
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<td></td>
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<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 3303</td>
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</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics and General Physics I Laboratory</td>
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<tr>
<td>&amp; PHYS 1113</td>
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Select two of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3302</td>
<td>Organic Chemistry II and Organic Chemistry Laboratory II</td>
<td>7</td>
</tr>
<tr>
<td>&amp; CHEM 3304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics II and General Physics II Laboratory</td>
<td>7</td>
</tr>
<tr>
<td>&amp; PHYS 1114</td>
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<td></td>
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<tr>
<td>BIOL 4432</td>
<td>Biochemistry</td>
<td>4</td>
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<tr>
<td>General Education</td>
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<td>24</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>79</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 3304</td>
<td>Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab</td>
<td>5</td>
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<tr>
<td>&amp; 3304L</td>
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</tbody>
</table>

#### Upper Division BMS Electives:

Select a minimum of 12 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
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</tr>
<tr>
<td>BIOL 3324</td>
<td>Developmental Biology and Developmental Biology Lab</td>
<td>4</td>
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<tr>
<td>&amp; 3324L</td>
<td></td>
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<tr>
<td>BIOL 4400</td>
<td>Oral Histology and Embryology and Oral History and Embryology Lab</td>
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<td>&amp; 4400L</td>
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<tr>
<td>BIOL 4419</td>
<td>Mammalian Histology and Mammalian Histology Lab 2</td>
<td>4</td>
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<tr>
<td>&amp; 4419L</td>
<td></td>
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<tr>
<td>BIOL 4423</td>
<td>General Parasitology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4432</td>
<td>Biochemistry 1</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4437</td>
<td>Experimental Biochemistry</td>
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<tr>
<td>BIOL 4433</td>
<td>Microbial Physiology and Microbial Physiology Laboratory</td>
<td>4</td>
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<tr>
<td>&amp; 4433L</td>
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<tr>
<td>BIOL 4440</td>
<td>Human Gross Anatomy and Human Gross Anatomy Lab 2</td>
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<tr>
<td>BIOL 4443</td>
<td>Endocrinology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4444</td>
<td>Cell and Molecular Biology and Cell and Molecular Biology Lab</td>
<td>5</td>
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<tr>
<td>&amp; 4444L</td>
<td></td>
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<tr>
<td>BIOL 4449</td>
<td>Human Physiology I 2</td>
<td>4</td>
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<tr>
<td>BIOL 4450</td>
<td>Head and Neck Anatomy and Head and Neck Anatomy Lab 2</td>
<td>3</td>
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<tr>
<td>&amp; 4450L</td>
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<tr>
<td>BIOL 4451</td>
<td>Immunology and Immunology Laboratory</td>
<td>4</td>
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<tr>
<td>&amp; 4451L</td>
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<tr>
<td>BIOL 4453</td>
<td>Foundations in Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4455</td>
<td>Pathogenic Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4456</td>
<td>Human Physiology II 2</td>
<td>4</td>
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<tr>
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<tr>
<td>BIOL 4463</td>
<td>Human Pathophysiology</td>
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<td>&amp; 4463L</td>
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</tbody>
</table>

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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.
BIOL 4466 Medical Mycology 3
BIOL 4470 Cross-Sectional Anatomy 2
BIOL 4475 General Virology 3
BIOL 4486 Human Systemic Physiology 5
& 4486L Human Systemic Physiology Lab 2
BIOL 4481 Independent Problems 1-4
or BIOL 4482 Independent Problems
BIOL 2280 Mentored Research Alliance 2
or BIOL 4480 Mentored Research Alliance

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.

Microbiology:
BIOL 2221 Introductory Microbiology 4
& 2221L and Introductory Microbiology Laboratory
or BIOL 2235 General Microbiology 4
& 2235L and General Microbiology Lab

Total BMS Concentration Requirements:
Anatomy and Physiology 5-8
BMS Electives 12
Microbiology 4
Minimum Total 21-24
Core Requirements 79-80
Total 100-104

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:
BIOL 4489 Field Ecology 4
or BIOL 4493 Senior Thesis

Ecology Courses:

Select a minimum of 8 credits from the following:
BIOL 1192 Careers in Ecology and Conservation Biology 1
BIOL 3337 Conservation Biology 3
BIOL 4408 Plant Ecology 3
BIOL 4416 Population Ecology 4
& 4416L and Population Ecology Lab 4
BIOL 4418 Ecological Topics 1
BIOL 4442 Plant Animal Interactions 3
BIOL 4459 Fish Ecology 4
& 4459L and Fish Ecology Laboratory
BIOL 4462 Freshwater Ecology 4
& 4462L and Freshwater Ecology Lab
BIOL/GEOL 4490 Ecosystem Ecology and Global Changes 4

Diversity or Evolutionary Courses:
Select a minimum of 8 credits from the following:
BIOL 2213 Fall Flora 2
BIOL 2214 Spring Flora 2
BIOL 3310 Invertebrate Zoology 4
& 3310L and Invertebrate Zoology Lab
BIOL 4406 Plant Diversity and Evolution 4
& 4406L and Plant Diversity and Evolution Lab
BIOL 4412 Systematic Botany 4
& 4412L and Systematic Botany Lab
BIOL 4423 General Parasitology 3
BIOL 4426 Herpetology 4
& 4426L and Herpetology Lab
BIOL 4427 Ichthyology 4
& 4427L and Ichthyology Lab
BIOL 4431 General Entomology 4
& 4431L and General Entomology Lab
BIOL 4434 Microbial Diversity 4
& 4434L and Microbial Diversity Lab
BIOL 4438 Ornithology 4
BIOL 4441 Mammalogy 4
& 4441L and Mammalogy Lab
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, including Independent Problems (BIOL 4481 and/or BIOL 4482) and AMOEBA (Mentored Research Alliance, BIOL 2280 and/or BIOL 4480).

Total ECB Concentration Requirements
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
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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301 &amp; 3301L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3304 &amp; 3304L</td>
<td>Comparative Vertebrate Morphology and Physiology and Vertebrate Morphology and Physiology Lab</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 3324 &amp; 3324L</td>
<td>Developmental Biology and Developmental Biology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4404</td>
<td>Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4405 &amp; 4405L</td>
<td>Plant Form and Function and Plant Form and Function Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4419 &amp; 4419L</td>
<td>Mammalian Histology and Mammalian Histology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4432</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4443</td>
<td>Endocrinology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4464</td>
<td>Lectures in Human Physiology</td>
<td>4</td>
</tr>
</tbody>
</table>

Diversity or Evolutionary Courses:

Select a minimum of 8 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2213</td>
<td>Fall Flora</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 2214</td>
<td>Spring Flora</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 3310 &amp; 3310L</td>
<td>Invertebrate Zoology and Invertebrate Zoology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4406 &amp; 4406L</td>
<td>Plant Diversity and Evolution and Plant Diversity and Evolution Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4412 &amp; 4412L</td>
<td>Systematic Botany and Systematic Botany Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4423</td>
<td>General Parasitology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4426 &amp; 4426L</td>
<td>Herpetology and Herpetology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4427 &amp; 4427L</td>
<td>Ichthyology and Ichthyology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4431 &amp; 4431L</td>
<td>General Entomology and General Entomology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4434 &amp; 4434L</td>
<td>Microbial Diversity and Microbial Diversity Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4438</td>
<td>Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4441 &amp; 4441L</td>
<td>Mammalogy and Mammalogy Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4442</td>
<td>Plant Animal Interactions</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4495</td>
<td>Animal Behavior</td>
<td>4</td>
</tr>
</tbody>
</table>

Biology Electives:

Students must fulfill a minimum of an additional 8 credits of biology electives for which they can select any course in Biology, including Independent Problems (BIOL 4481 and/or BIOL 4482) and AMOeba (Mentored Research Alliance, BIOL 2280 and/or BIOL 4480).

Total IOB Concentration Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy, Physiology, or Development courses</td>
<td>8</td>
</tr>
<tr>
<td>Diversity or Evolutionary Courses</td>
<td>8</td>
</tr>
<tr>
<td>Biology Electives</td>
<td>8</td>
</tr>
<tr>
<td>Minimum Total</td>
<td>24</td>
</tr>
<tr>
<td>Core Requirements</td>
<td>79-80</td>
</tr>
<tr>
<td>Total</td>
<td>103-104</td>
</tr>
</tbody>
</table>

Bachelor of Science in Biochemistry

Three departments - Biological Sciences, Chemistry, and Biomedical and Pharmaceutical Sciences - 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

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. 47) 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 in Biological Sciences, Chemistry, 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab (Partially satisfies General Education Objective 5)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1102 &amp; 1102L</td>
<td>Biology II and Biology II Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2235 &amp; 2235L</td>
<td>General Microbiology and General Microbiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4437/CHEM</td>
<td>Experimental Biochemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

2015-16 Idaho State University Undergraduate Catalog 319
Biol 4444 Course in Biological Sciences
Cell and Molecular Biology 5
& 4444L
and Cell and Molecular Biology Lab
Biol/Chem 4445 Biochemistry I 3
Biol/Chem 4447 Biochemistry II 3
Biol/Chem 4498 Seminar in Biochemistry 1
Chem 1111 General Chemistry I 5
& 1111L
and General Chemistry I Lab (Partially satisfies General Education Objective 5)
Chem 1112 General Chemistry II 4
& 1112L
and General Chemistry II Lab (Partially satisfies General Education Objective 5)
Chem 2232 Quantitative Analysis 4
& Chem 2234
and Quantitative Analysis Laboratory
Chem 3301 Organic Chemistry I 4
& Chem 3303
and Organic Chemistry Laboratory I
Chem 3302 Organic Chemistry II 4
& Chem 3304
and Organic Chemistry Laboratory II
Chem 3341 Topics in Physical Chemistry 3
Chem 3342 Topics in Physical Chemistry 3
Math 1170 Calculus I (Satisfies General Education Objective 3) 4
Math 1175 Calculus II 4
Phys 1111 General Physics 4
& Phys 1113
and General Physics I Laboratory (Partially satisfies General Education Objective 5) 4
Phys 1112 General Physics II 4
& Phys 1114
and General Physics II Laboratory (Partially satisfies General Education Objective 5) 4
Additional General Education Requirements 24
An additional 5 credits from any college or department 5
Total Hours 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:
Biol 3301 Anatomy and Physiology 4
& 3301L
and Anatomy and Physiology Lab
Biol 3302 Anatomy and Physiology 4
& 3302L
and Anatomy and Physiology Lab
Biol 3304 Comparative Vertebrate Morphology and Physiology 5
& 3304L
and Vertebrate Morphology and Physiology Lab
Biol 3324 Developmental Biology 4
& 3324L
and Developmental Biology Lab
Biol 4404 Plant Physiology 4
& 4404L
and Plant Physiology Lab
Biol 4417 Organic Evolution 3
Biol 4433 Microbial Physiology 4
& 4433L
and Microbial Physiology Laboratory
Biol 4434 Microbial Diversity 4
& 4434L
and Microbial Diversity Lab
Biol 4443 Endocrinology 3
Biol 4449 Human Physiology I 4
Biol 4451 Immunology 4
& 4451L
and Immunology Laboratory
Biol 4453 Foundations in Neuroscience 3
Biol 4456 Human Physiology II 4
Biol 4461 Advanced Genetics 3
Biol 4473 Applied and Environmental Microbiology 4
& 4473L
and Applied Environmental Microbiology Lab
Biol 4475 General Virology 3
Biol 4477 Bacterial Virology Laboratory 1
or Biol 4478 Animal Virology Laboratory
Biol 4481 Independent Problems max
& Biol 4482
and Independent Problems 2
Biol 4494 Seminar in Microbiology 1

Courses in Chemistry:
Chem 2211 Inorganic Chemistry I 4
& Chem 2213
and Inorganic Chemistry Laboratory
Chem 3311 Introduction to Research 4
& Chem 3312
and Introduction to Research 2
Chem 3331 Instrumental Analysis 4
& Chem 3334
and Instrumental Analysis Laboratory
Chem 3365 Synthetic Methods 4
& Chem 3366
and Synthetic Methods Laboratory
Chem 4407 Inorganic Chemistry II 1
Chem 4433 Environmental Chemistry 3
& Chem 4437
and Environmental Chemistry Laboratory
Chem 4453 Modern Experimental Physical Chemistry 2
Chem 4481 Independent Problems in Chemistry max
& Chem 4482
and Independent Problems in Chemistry 2
Chem 4485 Senior Research max
Chem 4491 Seminar 1

Courses in Mathematics:
Math 2240 Linear Algebra 3
Math 2275 Calculus III 4
Math 3360 Differential Equations 3

Courses in Biomedical and Pharmaceutical Sciences:
Psci 2205 Drugs in Society 2
Psci 3301 Introduction to Pharmacology 3
Psci 3308 Drug Discovery 3
Psci 3353 Introduction to Methods in Pharmaceutical Sciences 2
Psci 4407 Pharmacogenomics 2
Bachelor of Science in 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. 47) (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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1101L</td>
<td>and Biology I Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Biology II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1102L</td>
<td>and Biology II Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 2235</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 2235L</td>
<td>and General Microbiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4432</td>
<td>Biochemistry</td>
<td>3-6</td>
</tr>
<tr>
<td>OR</td>
<td>BIOL/CHEM 4445</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>Biochemistry I</td>
<td></td>
</tr>
<tr>
<td>BIOL/CHEM</td>
<td>Biochemistry II</td>
<td></td>
</tr>
<tr>
<td>4444</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 4433</td>
<td>Microbial Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 4433L</td>
<td>and Microbial Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 4444</td>
<td>Cell and Molecular Biology</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 4444L</td>
<td>and Cell and Molecular Biology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 4494</td>
<td>Seminar in Microbiology</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Hours 28-31

Required Courses in Chemistry, Mathematics1, and Physics:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 1111L</td>
<td>and General Chemistry I Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 1112</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1112L</td>
<td>and General Chemistry II Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 2232</td>
<td>Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 2234</td>
<td>and Quantitative Analysis Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 3303</td>
<td>and Organic Chemistry Laboratory I</td>
<td></td>
</tr>
<tr>
<td>CHEM 3302</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 3304</td>
<td>and Organic Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 1170</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>&amp; PHYS 1113</td>
<td>and General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; PHYS 1114</td>
<td>and General Physics II Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 32-33

Microbiology Electives (20 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4434</td>
<td>Microbial Diversity</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 4434L</td>
<td>and Microbial Diversity Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 4437/ CHEM 4438</td>
<td>Experimental Biochemistry</td>
<td></td>
</tr>
<tr>
<td>BIOL 4451</td>
<td>Immunology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 4451L</td>
<td>and Immunology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 4454</td>
<td>Advanced Immunology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4455</td>
<td>Pathogenic Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 4455L</td>
<td>and Pathogenic Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 4461</td>
<td>Advanced Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4466</td>
<td>Medical Mycology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4469</td>
<td>Special Topics in Microbiology</td>
<td>1-4</td>
</tr>
<tr>
<td>BIOL 4473</td>
<td>Applied and Environmental Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 4473L</td>
<td>and Applied Environmental Microbiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 4475</td>
<td>General Virology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4477</td>
<td>Bacterial Virology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 4478</td>
<td>Animal Virology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 4498</td>
<td>Seminar in Biochemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

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):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 2209</td>
<td>General Ecology</td>
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<tr>
<td>BIOL 2280</td>
<td>Mentored Research Alliance</td>
<td>2</td>
</tr>
<tr>
<td>or BIOL 4480</td>
<td>Mentored Research Alliance</td>
<td></td>
</tr>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>8</td>
</tr>
<tr>
<td>&amp; BIOL 3302</td>
<td>and Anatomy and Physiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4481</td>
<td>Independent Problems</td>
<td>1-4</td>
</tr>
<tr>
<td>and/or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 4482</td>
<td>Independent Problems</td>
<td>1-4</td>
</tr>
</tbody>
</table>

(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.

Minor in Biology1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 1101L</td>
<td>and Biology I Lab</td>
<td></td>
</tr>
</tbody>
</table>
BIOL 1102 Biology II  4
& 1102L and Biology II Lab  
BIOL 2206 Cell Biology  4
& 2207 and Cell Biology Laboratory  
BIOL 2209 General Ecology  4
& 2209L and General Ecology Laboratory  
BIOL 3358 Genetics  3
BIOL 4417 Organic Evolution  3
Upper division Biology courses  6

Total Hours  28

1  The Minor in Biology is only available to majors outside of Biological Sciences.

Minor in Microbiology  1

BIOL 2235 General Microbiology  4
& 2235L and General Microbiology Lab  
Any combination of the following courses to total 14 credits  14
BIOL 3358 Genetics  
BIOL 4432 Biochemistry  
BIOL 4433 Microbial Physiology  
& 4433L and Microbial Physiology Laboratory  
BIOL 4434 Microbial Diversity  
& 4434L and Microbial Diversity Lab  
BIOL 4437/ CHEM 4438 Experimental Biochemistry  
BIOL 4444 Cell and Molecular Biology  
& 4444L and Cell and Molecular Biology Lab  
BIOL 4451 Immunology  
& 4451L 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.)

1  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.

Courses

BIOL 1100 Concepts Biology Human Concerns: 4 semester hours.
Consider 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 Biology Human Concerns 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. 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. AS

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. PRE-or-COREQ: BIOL 2207. 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. PRE-or-COREQ: BIOL 2221L. F, S

BIOL 2221L Introductory Microbiology Laboratory: 1 semester hour.
PREREQ or COREQ: BIOL 2221. 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 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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

BIOL 3301 Anatomy and Physiology: 4 semester hours.
Structures and functions of integumentary, skeletal, muscular, and nervous systems. PREREQ: BIOL 1101. COREQ: BIOL 3301L. F, S

BIOL 3301L Anatomy and Physiology Lab: 0 semester hours.
Assignments to apply principles from BIOL 3301. F, S

BIOL 3302 Anatomy and Physiology: 4 semester hours.
Structures and functions of circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. PREREQ: BIOL 1101. COREQ: BIOL 3302L. F, S

BIOL 3302L Anatomy and Physiology Lab: 0 semester hours.
Assignments to apply principles from 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 3304L. 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 1101 and BIOL 1101L. BIOL 3301, and 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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. 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. S

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 4404L. 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. OF

BIOL 4406L Plant Diversity and Evolution Lab: 0 semester hours.
Assignments to apply principles from BIOL 4406. OF

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. AS

BIOL 4412L Systematic Botany Lab: 0 semester hours.
Assignments to apply principles from BIOL 4412. AS

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. 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 protoists, 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. EF, D

BIOL 4428L Medical Parasitology and Entomology Lab: 0 semester hours.
Assignments to apply principles from BIOL 4428. EF, D

BIOL 4429 Regional Anatomy and Histology: 4 semester hours.
Regional approach to gross human anatomy emphasizing the use of prospected 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. F
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. AS

BIOL 4440 Human Gross Anatomy: 4 semester hours.
Comprehensive regional study of gross human anatomy with emphasis on the upper limit, 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. OS

BIOL 4441L Mammalogy Lab: 1 semester hour.
Assignments to apply principles from BIOL 4441. OS

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: 4 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. F

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. F

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. F

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. S

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, neuronal anatomy 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. F

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. S

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 of the central nervous system, the brain and spinal cord. Combined lecture and laboratory demonstration. PREREQ: Permission of instructor. 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. S

BIOL 4469 Special Topics in Microbiology: 1-4 semester hour.
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 hour.
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 hour.
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 PHYP 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 presentation. 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 1101, BIOL 1102, BIOL 2209, GEOL 1101, and GEOL 1101L, or permission of instructor. PRE-or-COREQ: CHEM 1111. S

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, Su
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, Su

BIOL 4493 Senior Thesis: 1-4 semester hour.
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, Su

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 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Department of Chemistry

Faculty
Chair and Professor
Rodriguez (Physical)

Professors
Castle (Organic)
De Jesus (Organic)
Holman (Organic)
Kalivas (Analytical)
Pak (Organic)
J. Rosentreter (Analytical)

Associate professors
Evila (Biochemistry)
Goss (Physical)
Holland (Inorganic)

Assistant professor
Bennett (Inorganic)

Lecturers
Halpenny-Weathersby
Jolley
Quarder

Associate Lecturers
Omar
R. Rosentreter

Emeriti
Faler
Ronald
Sutter
Wiegand

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 course work taken earlier covers material which 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 course work is still appropriate must be approved by the department chairperson.

Bachelor of Arts in Chemistry

Students pursuing a Bachelor of Arts in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 (Objective 2 of the General Education Requirements) during the freshman year and ENGL 1102 (Objective 1) should be passed by, or during, the sophomore year. 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. 47) described in the Academic Information section of this catalog).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CHEM 1111</td>
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<td>CHEM 1112</td>
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<td>1112L</td>
<td>and General Chemistry II Lab</td>
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<td>MATH 1170</td>
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<td>3-4</td>
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<td>or MATH 1160</td>
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<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
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<tr>
<td>&amp; PHYS 1113</td>
<td>and General Physics I Laboratory</td>
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<td>&amp; PHYS 1112</td>
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<td>&amp; PHYS 1114</td>
<td>and General Physics II Laboratory</td>
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<td>PHYS 2211</td>
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<td>&amp; PHYS 2214</td>
<td>and Engineering Physics II Laboratory</td>
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<td>CHEM 2211</td>
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<td>&amp; CHEM 2213</td>
<td>and Inorganic Chemistry I Laboratory</td>
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<td>CHEM 2232</td>
<td>Quantitative Analysis</td>
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<td>&amp; CHEM 2234</td>
<td>and Quantitative Analysis Laboratory</td>
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</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td>4</td>
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<tr>
<td>&amp; CHEM 3303</td>
<td>and Organic Chemistry Laboratory I</td>
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</table>
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.

**Electives**

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. 47) described in the Academic Information section of this catalog).

Students working on a Bachelor of Science degree in Chemistry should note the following considerations for General Education Requirements: ENGL 1101 or ENGL 1101P, and COMM 1101 (General Education Objective 2) should be completed during the freshman year and ENGL 1102 (Objective 1) should be passed during the sophomore year. The mathematics requirement (Objective 3) should be fulfilled by MATH 1170 and MATH 1175 as early as feasible.

**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. 47) described in the Academic Information section of this catalog).

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, 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**

Students pursuing a Bachelor of Science degree in Chemistry 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. 47) 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 in Biological Sciences, Chemistry, 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.
Courses in Biological Sciences:

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 3 3
CHEM 3342 Topics in Physical Chemistry 3 3
MATH 1170 Calculus I (Satisfies General Education Objective 3) 4
MATH 1175 Calculus II 4
PHYS 1111 General Physics and General Physics I Laboratory (Partially satisfies General Education Objective 5) 4
PHYS 1112 & PHYS 1114 General Physics II and General Physics II Laboratory (Partially satisfies General Education Objective 5) 4

Additional General Education Requirements 24
An additional 5 credits from any college or department 5
Total Hours 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:

BIOL 3301 & 3301L Anatomy and Physiology and Anatomy and Physiology Lab 4
BIOL 3302 & 3302L Anatomy and Physiology and Anatomy and Physiology 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 Microbial Physiology and Microbial Physiology Laboratory 4
BIOL 4434 Microbial Diversity and Microbial Diversity Lab 4
& 4434L and Microbial Diversity Laboratory 4
BIOL 4443 Endocrinology 3
BIOL 4449 Human Physiology I 4
BIOL 4451 Immunology and Immunology Laboratory 4
& 4451L 4
BIOL 4453 Foundations in Neuroscience 3
BIOL 4456 Human Physiology II 4
BIOL 4461 Advanced Genetics 3
BIOL 4473 Applied and Environmental Microbiology and Applied Environmental Microbiology Lab 4
& 4473L 4
BIOL 4475 General Virology 3
BIOL 4477 Bacterial Virology Laboratory 1
or BIOL 4478 Animal Virology Laboratory 1
BIOL 4481 Independent Problems max & BIOL 4482 and Independent Problems 2
max
BIOL 4494 Seminar in Microbiology 1

Courses in Chemistry:

CHEM 2211 Inorganic Chemistry I 4
& CHEM 2213 and Inorganic Chemistry I Laboratory 4
CHEM 3311 Introduction to Research max & CHEM 3312 and Introduction to Research 2
max
CHEM 3331 Instrumental Analysis and Instrumental Analysis Laboratory 4
CHEM 3334 Synthetic Methods and Synthetic Methods Laboratory 4
CHEM 4407 Inorganic Chemistry II max & CHEM 3334 and Inorganic Chemistry II Laboratory 1 2
max
CHEM 4433 Environmental Chemistry max & CHEM 4437 and Environmental Chemistry Laboratory 3 2
max
CHEM 4453 Modern Experimental Physical Chemistry max & CHEM 4453 and Modern Experimental Physical Chemistry 2 2
max
CHEM 4481 Independent Problems in Chemistry max & CHEM 4482 and Independent Problems in Chemistry 2 2
max
CHEM 4485 Senior Research max 1
CHEM 4491 Seminar 1

Courses in Mathematics:

MATH 2240 Linear Algebra 3
MATH 2275 Calculus III 4
MATH 3360 Differential Equations 3

Courses in Biomedical and Pharmaceutical Sciences:

PSCI 2205 Drugs in Society 2
PSCI 3301 Introduction to Pharmacology 3
PSCI 3308 Drug Discovery 3
PSCI 3353 Introduction to Methods in Pharmaceutical Sciences 2
PSCI 4407 Pharmacogenomics 2
PSCI 4408 Medicinal Chemistry 3
PSCI 4440 Fundamentals of Nanoscience 3
Prerequisites include CHEM 2211, CHEM 2213, CHEM 3351, and CHEM 3352.

Prerequisites include CHEM 3334, CHEM 3351, and CHEM 3352.

Combined B.S./M.S. Program in Chemistry

Students may be admitted to the program after having completed 64 credit hours, which typically is at the beginning of the junior year. At this point, the chemistry, mathematics, and physics courses completed should include:

- CHEM 1111 & 1111L General Chemistry I and General Chemistry I Lab
- CHEM 1112 & 1112L General Chemistry II and General Chemistry II Lab
- CHEM 2211 Inorganic Chemistry I
- CHEM 2213 Inorganic Chemistry I Laboratory
- CHEM 2232 Quantitative Analysis
- CHEM 2234 Quantitative Analysis Laboratory
- CHEM 3301 Organic Chemistry I & CHEM 3302 Organic Chemistry II
- CHEM 3303 Organic Chemistry Laboratory I & CHEM 3304 Organic Chemistry Laboratory II
- MATH 1170 Calculus I
- MATH 1175 Calculus II
- PHYS 2211 Engineering Physics I & PHYS 2213 and Engineering Physics I Laboratory
- PHYS 2212 Engineering Physics II & PHYS 2214 and Engineering Physics II Laboratory

Application for admission must be made to the Chemistry Department.

Teaching Major in Chemistry

Students wishing to pursue a Teaching Major in Chemistry should make an appointment to meet with the department chair.

Minor in Chemistry

Required courses:

- CHEM 1111 General Chemistry I & 1111L and General Chemistry I Lab
- CHEM 1112 General Chemistry II & 1112L and General Chemistry II Lab
- CHEM 2211 Inorganic Chemistry I
- CHEM 2213 Inorganic Chemistry I Laboratory
- CHEM 2232 Quantitative Analysis
- CHEM 2234 Quantitative Analysis Laboratory
- CHEM 3301 Organic Chemistry I
- CHEM 3302 Organic Chemistry II
- CHEM 3303 Organic Chemistry Laboratory I
- CHEM 3304 Organic Chemistry Laboratory II
- CHEM 4400, CHEM 4481, CHEM 4482, and CHEM 4491

Total Hours: 29

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. 47) described in the Academic Information section of this catalog).

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>5</td>
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<tr>
<td>CHEM 1112 &amp; 1112L</td>
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<tr>
<td>CHEM 2211</td>
<td>3</td>
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<td>CHEM 2213</td>
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<td>5</td>
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<tr>
<td>PHYS 2212 &amp; 2214</td>
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Total Hours: 12-13

Second Year

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<tr>
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<tbody>
<tr>
<td>CHEM 2232</td>
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<td>CHEM 2234</td>
<td>2</td>
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<td>CHEM 3301 &amp; 3302</td>
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<td>CHEM 3303 &amp; 3304</td>
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Total Hours: 34

Third Year

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<td>CHEM 3341 &amp; 3342</td>
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<td>OR</td>
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<td>CHEM 3351 &amp; 3352</td>
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Fourth Year

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<td>CHEM 3391</td>
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Total Hours: 56-57

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 (Objective 2 of the General Education
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. 47) described in the Academic Information section of this catalog).

Students working on a Bachelor of Science degree in Chemistry should note the following considerations for General Education Requirements: ENGL 1101 or ENGL 1101P, and COMM 1101 (General Education Objective 2) should be completed during the freshman year and ENGL 1102 (Objective 1) should be passed during the sophomore year. The mathematics requirement (Objective 3) should be fulfilled by MATH 1170 and MATH 1175 as early as feasible.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
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<td>CHEM 1112 &amp; 1112L</td>
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Second Year

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<tr>
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<td>PHYS 2211 &amp; PHYS 2212</td>
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<td>PHYS 2213 &amp; PHYS 2214</td>
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Third Year

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<td>CHEM 3334</td>
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<td>CHEM 3351 &amp; CHEM 3352</td>
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Fourth Year

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<td>CHEM 4485</td>
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<td>CHEM 4491</td>
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<tr>
<td>CHM 6609 &amp; CHEM 6655</td>
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Total Hours: 79
CHEM 1100 Architecture of Matter: 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 General 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, Su

CHEM 1102 Introduction to 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 except CHEM 1101. 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 Introduction to General 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. May be repeated upon completion of CHEM 1111L. 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. Partially satisfies Objective 5 of the General Education Requirements. F, S

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

CHEM 1199 Experimental Course: 1-3 semester hour.
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

CHEM 2211 Inorganic Chemistry I: 3 semester hours.
An introduction to the chemistry of the elements, including: molecular and solid-state structure, aqueous chemistry (acid/base, solubility, and redox phenomena), and coordination chemistry (ligand field theory, and reaction mechanisms). Selected topics in materials, bioinorganic, and/or environmental inorganic chemistry will be surveyed. PREREQ: CHEM 1112 and CHEM 1112L or permission of instructor. COREQ: CHEM 2213. F

CHEM 2213 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. 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. 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 hour.
Directed library and laboratory research. Courses may be repeated for up to 6 credits. F, S

CHEM 3312 Introduction to Research: 1-2 semester hour.
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: 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: 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: 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, or permission of instructor. F

CHEM 3352 Physical Chemistry: 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 CHEM 3352, 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 allostery, 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 4453 Modern Experimental Physical Chemistry: 2 semester hours.
Magnetic, optical and electrical properties of materials, calorimetry, voltammetry, optical and laser spectroscopic techniques. PREREQ: CHEM 3334 and CHEM 3352. F

CHEM 4470 Bioorganic 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 dioxygenation, 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 hour.
Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits each. PREREQ: CHEM 3352. F

CHEM 4482 Independent Problems in Chemistry: 1-4 semester hour.
Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits each. PREREQ: CHEM 3352. S

CHEM 4485 Senior Research: 1-4 semester hour.
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 hour.
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.
Computer Science Program

Faculty
Program Director and Professor
Beard

Chair and Professor
Parker

Professor
Schou

Assistant Professor
Edwards

The goal of Computer Science at Idaho State University is to provide students with a broad yet rigorous computer science education. Graduates earning a Bachelor of Science in Computer Science will possess the following: the requisite qualifications for obtaining employment as a computer scientist; an understanding that life-long learning is an integral part of personal, professional and social interaction; and the requisite qualifications for pursuing an advanced degree in Computer Science or a related field, particularly when the curriculum is augmented with additional selected math courses. By adding the Minor in Business Administration, they may complete the MBA in a 5th year; this is particularly important for those students interested in graduate work as part of the National Information Assurance Training and Education Center (NIATEC).

Students wishing to become computer science majors should contact the computer science office to have an advisor assigned to them and sketch out an initial program of study. While taking CS 3308, computer science majors must complete a COMPUTER SCIENCE PROGRAM OF STUDY form, available on the Computer Science web site (http://www.isu.edu/cob/computerscience.shtml), and meet with their advisor for its approval. Additional meetings with an advisor are recommended to ensure that the anticipated schedule is maintained. For courses transferred from another university to apply toward the computer science major, the corresponding ISU computer science course must be listed on the student’s ISU transcript or there must be a completed and approved petition form in the student’s file. Transferring computer science students entering ISU already having completed CS 3308 must call the Computer Science office, have an advisor assigned to them, and complete a Program of Study form. Before the beginning of their final year of study, students should meet with Academic Advising to ensure that all General Education Requirements have been completed; successful completion of General Education Requirements is determined by Academic Advising. Students then should fill in a COMPUTER SCIENCE GRADUATION CHECKLIST form, also available on the Computer Science web site (http://www.isu.edu/cob/computerscience.shtml), and meet with their advisor for approval. The students should bring a copy of their approved Program of Study form and transcript. An approved COMPUTER SCIENCE GRADUATION form is needed to take CS 4488. All courses applying toward the computer science major or minor must be passed with a grade of "C-" or higher.

In 3000 and higher computer science courses, computer science majors and minors are expected to have a laptop computer with sufficient capacity to run various tools within virtual machines. This machine will help the students work in a safe and secure environment and assist in their mastery of continually evolving professional environments.

As part of Computer Science’s commitment to lifelong learning, students will become accustomed to both written and oral presentations. They will be immersed in a virtual learning environment based on modern software design and development processes. Students are expected to adapt to new operating systems, DBMSs, programming languages, development environments, and security protocols.

The Bachelor of Science program in Computer Science is accredited by the Northwest Commission on Colleges and Universities.

Bachelor of Science in Computer Science

The following courses are required in addition to the university’s General Education Requirements (p. 47) for the Bachelor of Science degree. 120 credits are required to graduate. 1

Mathematics and Science Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one course from each pair or triple:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS/MATH 1187</td>
<td>Applied Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 2287</td>
<td>Foundations of Mathematics</td>
<td></td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 3360</td>
<td>Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 3350</td>
<td>Statistical Methods 2</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 4450</td>
<td>Mathematical Statistics I</td>
<td></td>
</tr>
<tr>
<td>or MGT 2216</td>
<td>Business Statistics</td>
<td></td>
</tr>
<tr>
<td>MATH 3352</td>
<td>Introduction to Probability 2</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 2217</td>
<td>Advanced Business Statistics</td>
<td></td>
</tr>
</tbody>
</table>

Required Computer Science and Related Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I (Satisfies General Education Objective 7)</td>
<td>3</td>
</tr>
<tr>
<td>CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CS 2275</td>
<td>Computer Organization and Assembly</td>
<td>3</td>
</tr>
<tr>
<td>CS 3308</td>
<td>Data Structures and Programming</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3380</td>
<td>Networking and Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>CS 3385</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4411</td>
<td>Intermediate Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>CS 4471</td>
<td>Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>CS 4481</td>
<td>Compilers</td>
<td>3</td>
</tr>
<tr>
<td>CS 4488</td>
<td>Advanced Software Engineering and Project</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one course from each pair:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 3321</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>or INFO 3307</td>
<td>Systems Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>CS 4451</td>
<td>Database Theory Design and Programming</td>
<td>3</td>
</tr>
<tr>
<td>or INFO 4407</td>
<td>Database Design and Implementation</td>
<td></td>
</tr>
</tbody>
</table>

To allow students to have the broadest possible learning experience, students are encouraged to select elective courses carefully. These range from an increased emphasis in advanced Mathematics to a specialization in Computer Security/Information Assurance.

The CS Major also requires 6 additional elective credits from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any 3000 or 4000 level Computer Science course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFO 4412</td>
<td>Systems Security for Senior Management</td>
<td>6</td>
</tr>
</tbody>
</table>
CS 1182 Computer Science and Programming II: 3 semester hours.
Object-oriented programming and design. Sorting and searching. Recursion. Event-driven programming. UML class-diagrams. Secure software design/coding concepts for resilient software systems. PREREQ: CS 1181 or INFO 1181. 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. S

CS 2263 Advanced Object-Oriented Programming: 3 semester hours.
Advanced programming in a modern object-oriented language, different from the one used in CS 1181 and CS 1182; philosophy, application, and examples of object-oriented concepts and techniques; comprehensive survey of software engineering design patterns. PREREQ: CS 1182. D

CS 2275 Computer Organization and Assembly: 3 semester hours.
Computer organization from the perspective of instructions, including the central processor, busses, input and output units, and memory units. Instruction sets, loaders and linkers, assembly language, address computation, and other architecture-related functions. Virtual memory. Dynamic and static linking. Uses a different programming language. PREREQ: CS 1182. S

CS 2299 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.

CS 3308 Data Structures and Programming: 3 semester hours.
Introduction to data structures and their associated algorithms. Abstract data types, linked lists, stacks, queues, trees, Pointers. Sorting and searching. Elementary threading. Extensive programming exercises and projects. PREREQ: CS 1182 or INFO 1182. F

CS 3321 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 3308. D

CS 3331 Web Programming: 3 semester hours.
HTML, server- and client-side programming, web-based database programming. PREREQ: CS 3308. D

CS 3342 Computer Graphics: 3 semester hours.
Covers raster graphics, primitives, scan conversion, geometric transformations, object hierarchies, curves and surfaces, solid modeling, visible surface determination, illumination, shading, manipulation and advanced modeling techniques. PREREQ: CS 3308 and MATH 2240. D

CS 3344 Artificial Intelligence: 3 semester hours.
Fundamental principles and techniques of artificial intelligence systems; search strategies; knowledge acquisition and representation; common sense reasoning; planning; machine learning; expert systems; intelligent agents and multi-agent systems. PREREQ: CS 3385. D

CS 3385 Data Structures and Algorithms: 3 semester hours.
The design, construction, and analysis of data structures, algorithms, and complexity beyond CS 3308. Balanced trees, heaps, hash tables, graph algorithms, sorting and searching. Space and time complexity. Significant coding projects. PREREQ: CS 3308, CS 2275, MATH 1170, and (CS/MATH 1187 or MATH 2287 or MATH 2240). S

CS 3386 Data Structures and Algorithms II: 3 semester hours.
Continuation of CS 3385. PREREQ: CS 3385. 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 3385. 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 3385. D

CS 4444 Image and Audio Processing: 3 semester hours.
Image and audio acquisition, quantization, spatial and spectral filters, sharpening,
smoothing, restoration, compression, segmentation, Fourier and Wavelet
transforms. PREREQ: CS/MATH 1187, MATH 3352, and MATH 3360. D

CS 4445 Data Compression: 3 semester hours.
A survey of modern techniques of data compression, both lossy and loss-less and
encryption. PREREQ: CS 3385. 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 3385. D

CS 4460 Comparative Programming Languages: 3 semester hours.
Design of historical and contemporary programming languages, concentration on
promoting understanding of structural organization, data structures and typing,
name structures, and control structures. PREREQ: CS 3385 and either CS 2275 or
CS 4475. D

CS 4470 Parallel Processing: 3 semester hours.
Topics in high-performance computing: parallel architectures, SIMD, MIND,
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 3385 and either CS 2275 or
CS 4475. F

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
2275 and CS 3308. S

CS 4475 Advanced Computer Architecture: 3 semester hours.
Continuation of CS 2275, Computer Organization and Assembly. PREREQ: CS
2275 and EE 2274. D

CS 4480 Theory of Computation: 3 semester hours.
Finite representations of languages, deterministic and nondeterministic finite
automata, context free languages, regular languages, parsing, Turing Machines,
Church's Thesis, uncomputability, computational complexity classes. PREREQ:
CS 3385, CS/MATH 1187 or MATH 2287, and MATH 1175. 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 3385. F

CS 4488 Advanced Software Engineering and 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: CS 3385, CS 3321 or INFO 3307, and CS 4451 or INFO
4407. 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 4499 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are
announced in the class schedule by the scheduling department. Experimental
courses may be offered no more than three times with the same title and content
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. Students who have been dismissed from an engineering program may not enroll in engineering courses prior to readmission.
2. 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.
3. 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.
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. 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.

Courses

ENGR 1167 Engineering and Scientific Programming: 1 semester hour.
Introduces a high level, compiled, programming language used in engineering and scientific applications. Covers compilation and linking, functions and procedures, the use of libraries, and engineering applications. PREREQ or COREQ: ME 1165. S

ENGR 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. PREREQ: CE 2210/ME 2210. F, S

ENGR 2223 Materials and Measurements: 3 semester hours.
Structure of materials. Mechanical, electrical and thermal behavior of metals, ceramics, polymers and composite materials. Laboratory measurement of material properties. Three lectures and one lab per week. PREREQ: CHEM 1111, CHEM 1111L, and ENGL 1102. F, S

ENGR 2224 Materials and Measurements Laboratory: 1 semester hour.
Laboratory measurement of material properties. COREQ or PREREQ: ENGR 2223. F, S

ENGR 2234 Materials and Measurements Lab: 1 semester hour.

ENGR 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. PREREQ: ENGR 2220. F

ENGR 3364 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. Stress engineering applications and programming projects. PREREQ: ME 1165 or CS 1181; MATH 2240, MATH 2275, and MATH 3360. F

ENGR 3392 Cooperative Education: 1-3 semester hour.
Academic work done in conjunction with approved engineering work experience. Written report required. Consult with faculty advisor regarding availability and specific requirements. Graded S/U. PREREQ: Junior standing and permission of instructor. F, S, Su

ENGR 4400 Essentials of Engineering: 2 semester hours.
Preparation for Fundamentals of Engineering Exam. May not be used as a technical elective. May be repeated once for a total of 4 credits. PREREQ: Senior standing in Engineering. Graded S/U. F, S

ENGR 4414 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. PREREQ: CE 3341/ME 3341 and CE 3350/ME 3350. D

ENGR 4478 Probabilistic Risk Assessment: 3 semester hours.
Probabilistic methods applied to analysis and design. Setting probabilistic design objectives and calculating probabilistic performance emphasized. PREREQ: ENGR 3364, MATH 3360 and Senior standing in Engineering. D

ENGR 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/EE 4481. PREREQ: Permission of instructor. D

ENGR 4492 Human Factors in Engineering: 3 semester hours.
Overview of the discipline of human factors engineering, including design of information displays, controls, workspace, and human performance. Relationship of engineering to corporate issues such as R&D, maintenance, training, operations, safety. D
ENGR 4496 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. F

ENGR 4499 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are
announced in the class schedule by the scheduling department. Experimental
courses may be offered no more than three times with the same title and content
Department of Civil and Environmental Engineering

Faculty
Chair and Associate Professor
Savage
Associate Chair and Professor
Sato
Professors
Ebrahimpour
Leung
Assistant Professor
Sorensen
Senior Lecturer
Mahar
Adjunct Faculty
Gale
Gossett
Leavitt

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

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.

Bachelor of Science in Civil Engineering
Including the University's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 47) 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing (Satisfies General Education Objective 1)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I (Satisfies General Education Objective 3)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)</td>
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</tr>
<tr>
<td>GEOL 1101 &amp; 1101L</td>
<td>Physical Geology and Physical Geology Lab</td>
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<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I (Partially satisfies General Education Objective 5)</td>
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</tr>
<tr>
<td>CE 1105</td>
<td>Engineering Graphics</td>
<td>2</td>
</tr>
<tr>
<td>ME 1165</td>
<td>Structured Programming</td>
<td>2</td>
</tr>
<tr>
<td>CE/ME 2210</td>
<td>Engineering Statics</td>
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<tr>
<td>MATH 3352</td>
<td>Introduction to Probability</td>
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<tr>
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<td>Linear Algebra</td>
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<td>Civil Engineering Tools</td>
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<tr>
<td>COMM 1101</td>
<td>Principles of Speech (Satisfies General Education Objective 2)</td>
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<tr>
<td>CE/ME 2220</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>CE/ME 3350</td>
<td>Mechanics of Materials</td>
<td>3</td>
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<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
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<tr>
<td>CE 3332</td>
<td>Basic Geotechnics</td>
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<tr>
<td>CE 3337</td>
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<td>CE 3301</td>
<td>Surveying</td>
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<td>CE 3362</td>
<td>Structural Analysis</td>
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<td>CE 3361</td>
<td>Engineering Economics and Management</td>
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<tr>
<td>CE 3366</td>
<td>Civil Engineering Materials</td>
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<td>Civil Engineering Materials Laboratory</td>
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<tr>
<td>CE 4434</td>
<td>Geotechnical Design</td>
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<tr>
<td>CE/ME 3341</td>
<td>Fluid Mechanics</td>
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<tr>
<td>CE 3351</td>
<td>Engineering Hydrology</td>
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</tr>
<tr>
<td>ENVE 4408</td>
<td>Water and Waste Water Quality</td>
<td>3</td>
</tr>
<tr>
<td>CE 4462</td>
<td>Design of Steel Structures</td>
<td>3</td>
</tr>
<tr>
<td>or CE 4464</td>
<td>Design of Concrete Structures</td>
<td></td>
</tr>
<tr>
<td>ENVE 4410</td>
<td>Introduction to Environmental Engineering</td>
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<tr>
<td>CE 4435</td>
<td>Hydraulic Design</td>
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<tr>
<td>CE 4496A</td>
<td>Project Design I</td>
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<tr>
<td>CE 4436</td>
<td>Transportation Engineering</td>
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<tr>
<td>CE 4496B</td>
<td>Project Design II</td>
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<tr>
<td>CE Technical Electives</td>
<td></td>
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</tr>
</tbody>
</table>

Add'l General Education Objectives 2

1 List of approved courses is available in the Civil Engineering Checklist. The CE Technical Elective courses must be selected from at least two areas of Geotechnical, Structures, Water Resources, Environmental, or other areas.

2 See the General Education Requirements (p. 47) in the Academic Information section of this catalog.

Emphasis in Engineering Geology
Complete the following courses in addition to the Bachelor of Science in Civil Engineering:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE/GEOL 4454</td>
<td>Basic Engineering Geology</td>
<td>3</td>
</tr>
<tr>
<td>CE/GEOL 4455</td>
<td>Geologic Data Methods</td>
<td>3</td>
</tr>
</tbody>
</table>
Civil Engineering Courses

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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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, ME 1165. 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 kinematics. 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: ME 2210 or CE 2210. F, S

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 3302 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/ME 2210. 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. 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. 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/ME 2210. 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/ME 3350 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/ME 3350. F

CE 3367 Civil Engineering Materials Laboratory: 1 semester hour.
Laboratory measurement of mechanical behavior of civil engineering materials. Design of experiment. PREREQ: CE/ME 3350. PRE-or-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/ME 3350 and CE 3332. F

CE 4435 Hydraulic Design: 3 semester hours.
Hydraulic design of water control and transport structures, pipelines, and distribution systems. Computer methods utilized. PREREQ: CE/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 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: GEOL 4454 or GEOL 4445. 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 hour.  
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: Approval of application for admission to course. 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 hour.  
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

Env Engr 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: CHEM 1111 and CHEM 1111L or equivalent. S, D

ENVE 4409 Water and Waste Water Quality Lab: 1 semester hour.  
Fundamental analytical procedures for measurement of water and wastewater quality. Introduction to materials and protocols associated with general environmental analytical techniques. COREQ or PREREQ: ENVE 4408. D

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 hour.  
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
Department of Electrical Engineering

Faculty
Chair and Professor
Stuffle

Professor
Mousavinezhad

Associate professors
Chiu
Ellis
Kantabutra

Adjunct Faculty
Hunter
Jensen
Lefevre
McJunkin
Pan
Renlund

Affiliate Faculty
Rieger
Suri

Accreditation
The undergraduate 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 Advisor to develop a plan of study leading to degree completion.

Electrical Engineering Degree Requirements
Including the university's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (p. 47) in the Academic Information section of this catalog), the program of study for the Bachelor of Science in Electrical Engineering degree totals 120 credits as follows:

Required Courses for Electrical Engineering Major (36 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 111</td>
<td>General Chemistry I (Partially Fulfills General Education Objective 5)</td>
<td>4</td>
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<td>CHEM 1111L</td>
<td>General Chemistry I Lab (Partially Fulfills General Education Objective 5)</td>
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<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I (Fulfills General Education Objective 7)</td>
<td>3</td>
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<tr>
<td>CS 1182</td>
<td>Computer Science and Programming II</td>
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<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
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<tr>
<td>MATH 1170</td>
<td>Calculus I (Fulfills General Education Objective 3)</td>
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<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
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<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
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<td>Calculus III</td>
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<td>PHYS 2211</td>
<td>Engineering Physics I (Partially Fulfills General Education Objective 5)</td>
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<td>PHYS 2212</td>
<td>Engineering Physics II (Partially Fulfills General Education Objective 5)</td>
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<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
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<tr>
<td>EE 2274</td>
<td>Introduction to Digital Systems</td>
<td>3</td>
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<tr>
<td>EE 2275</td>
<td>Introduction to Digital Systems Laboratory</td>
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<tr>
<td>EE 3325</td>
<td>Electromagnetics</td>
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<tr>
<td>EE 3329</td>
<td>Introduction to Electronics</td>
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<tr>
<td>EE 3340</td>
<td>Fundamentals of Electrical Devices</td>
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<tr>
<td>EE 3342</td>
<td>Fundamentals of Electrical Devices Laboratory</td>
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<tr>
<td>EE 3345</td>
<td>Signals and Systems</td>
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<tr>
<td>EE 4400</td>
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<td>EE 4416</td>
<td>Applied Engineering Methods</td>
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<td>EE 4418</td>
<td>Communication Systems</td>
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<td>EE 4426</td>
<td>Computer Architecture and Organization</td>
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<td>EE 4427</td>
<td>Embedded Systems Engineering</td>
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<td>EE 4429</td>
<td>Advanced Electronics</td>
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<td>EE 4472</td>
<td>Electrical Machines and Power</td>
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<td>EE 4473</td>
<td>Automatic Control Systems</td>
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<tr>
<td>EE 4475</td>
<td>Digital Signal Processing</td>
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</table>
**Recommended Schedule**

### Freshman

<table>
<thead>
<tr>
<th>Fall Courses</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
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<tr>
<td>CS 1181</td>
<td>3</td>
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<tr>
<td>MATH 1170</td>
<td>4</td>
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<tr>
<td>Social Science and Humanities Course</td>
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### Sophomore

<table>
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<tr>
<td>EE 2274 &amp; EE 2275</td>
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<tr>
<td>EE 2240</td>
<td>3</td>
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<tr>
<td>MATH 2240</td>
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<tr>
<td>PHYS 2212</td>
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### Junior

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<td>3</td>
</tr>
<tr>
<td>EE 4426</td>
<td>3</td>
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<tr>
<td>EE 4472 &amp; 4472L</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3360</td>
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</table>

### Senior

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<td>EE Elective</td>
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<tr>
<td>Technical Elective</td>
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<tr>
<td>Social Science or Humanities Course</td>
<td>3</td>
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</tbody>
</table>

| Total Hours | 120 |

### Courses

**EE 2240 Introduction to Electrical Circuits:** 3 semester hours.

**EE 2274 Introduction to Digital Systems:** 3 semester hours.
Number systems; Boolean algebra fundamentals; system reduction, combinational and sequential logic. PREREQ: CS/MATH 1187. COREQ or PREREQ: EE 2275. F

**EE 2275 Introduction to Digital Systems Laboratory:** 1 semester hour.
Laboratory experience in the construction of basic digital logic circuits and state machines. COREQ or PREREQ: EE 2274. 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. COREQ or PREREQ: EE 3340. S

**EE 3340 Fundamentals of Electrical Devices:** 3 semester hours.

**EE 3342 Fundamentals of Electrical Devices Laboratory:** 1 semester hour.
Laboratory course emphasizing basic electrical measurements and methods. COREQ 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 4400 Senior Seminar:** 1 semester hour.
Current topics in Electrical Engineering. PREREQ: Senior standing in Electrical Engineering. F

**EE 4413 Techniques of Computer-Aided Circuit Analysis and Design:** 3 semester hours.
Automatic formulation of equations and fundamental programming techniques pertinent to computer-aided circuit analysis, design, modeling. May include sensitivity calculations, system analogies, optimization. PREREQ: CS 1181, EE 3340, and EE 3342. D

**EE 4414 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 1170. 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 and EE 3345. 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 and EE 2275. 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. PREREQ or 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 or COREQ: EE 4427. S

EE 4429 Advanced Electronics: 2 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 or COREQ: EE 4429. F PREREQ 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 Design: 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 3329. D

EE 4433 Mixed Signal Design: 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 tools. PREREQ: EE 4432. D

EE 4447 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 and EE 3342. PREREQ or 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. PREREQ or 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: 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. PREREQ: EE 3345. PREREQ or COREQ: EE 4484. 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: PHYS 2212 or equivalent. 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: PHYS 2212 or equivalent. 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 hour.
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/ENGR 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 4484 Signal Processing Laboratory: 1 semester hour.
Design finite and infinite response digital filters in digital signal processing applications. PREREQ or COREQ: EE 4475. S

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 4496 Project Design: 3 semester hours.
Conceptual design of multidisciplinary electrical engineering projects. Design, analysis, and implementation of senior design projects proposed and defined in EE 4400. PREREQ: EE 4400. S

EE 4496B Project Design II: 3 semester hours.
Continuation of design sequence dealing with the design, analysis, implementation, and consequences of multi-disciplinary projects. PREREQ: EE 4496A. S

EE 4499 Experimental Course: 1-3 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Department of Mechanical Engineering

Faculty
Chair and Professor
Williams
Professors
Bosworth
Schoen
Associate Professors
Perez
Wabrek
Assistant Professor
Sebastian
Senior Lecturer
Hofle
Adjunct Faculty
Walters
Wilson
Affiliate Faculty
Lin
Maidana

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.

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. 47) 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I (Satisfies General Education Objective 3)</td>
<td>4</td>
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<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
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<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
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<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3</td>
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<tr>
<td>CHEM 1111</td>
<td>General Chemistry I (Partially satisfies General Education Objective 5)</td>
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</tr>
<tr>
<td>CHEM 1111L</td>
<td>General Chemistry I Lab (Partially satisfies General Education Objective 5)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I (Partially satisfies General Education Objective 5)</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2212</td>
<td>Engineering Physics II (Partially satisfies General Education Objective 5)</td>
<td>4</td>
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</tbody>
</table>

Note: Objective 5 is satisfied by taking all of the science courses identified above as partially satisfying this objective.

**Mechanical Engineering Course Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE/ME 2210</td>
<td>Engineering Statics 1</td>
<td>3</td>
</tr>
<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CE/ME 3350</td>
<td>Mechanics of Materials 1</td>
<td>3</td>
</tr>
<tr>
<td>CE 3360</td>
<td>Engineering Economics</td>
<td>2</td>
</tr>
<tr>
<td>ME 1105</td>
<td>Solid Modeling</td>
<td>2</td>
</tr>
<tr>
<td>ME 1165</td>
<td>Structured Programming</td>
<td>2</td>
</tr>
<tr>
<td>CE/ME 2220</td>
<td>Engineering Dynamics 1</td>
<td>3</td>
</tr>
<tr>
<td>ME 2266</td>
<td>Symbolic Programming</td>
<td>1</td>
</tr>
<tr>
<td>ME 3307</td>
<td>Thermodynamics 1</td>
<td>3</td>
</tr>
<tr>
<td>ME 3320</td>
<td>Kinematics and Dynamics of Machinery 1</td>
<td>3</td>
</tr>
<tr>
<td>ME 3322</td>
<td>Mechanical Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>ME 3323</td>
<td>Machine Design</td>
<td>3</td>
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<tr>
<td>CE/ME 3341</td>
<td>Fluid Mechanics 1</td>
<td>3</td>
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<td>ME 4406</td>
<td>Measurement Systems Laboratory</td>
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<td>ME 4440</td>
<td>Vibration Analysis</td>
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<td>ME 4443</td>
<td>Thermal Fluids Laboratory</td>
<td>1</td>
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<td>ME 4463</td>
<td>Mechanical Systems Design</td>
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<tr>
<td>ME 4465</td>
<td>Thermal Fluid System Design</td>
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<td>ME 4473</td>
<td>Mechanical Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>ME 4476</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>ME 4496A</td>
<td>Project Design I</td>
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<tr>
<td>ME 4496B</td>
<td>Project Design II</td>
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<tr>
<td>ME Electives</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td>and Anatomy and Physiology Lab</td>
<td></td>
</tr>
<tr>
<td>PTOT 4401</td>
<td>Clinical Kinesiology and Biomechanics</td>
<td>4</td>
</tr>
<tr>
<td>PE 4482</td>
<td>Mechanical Analysis of Human Movement</td>
<td>3</td>
</tr>
<tr>
<td>PE 3302</td>
<td>Biomechanics</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3302L</td>
<td>and Biomechanics Laboratory</td>
<td></td>
</tr>
</tbody>
</table>
For students interested in focusing their ME degree in the **Systems** area, suggested electives are:

- ME 3355 System Dynamics 3
- ME 4415 Model Theory 3
- ME 4425 Mechatronics 3
- MATH 4421 Advanced Engineering Mathematics I 3

For students interested in focusing their ME degree in the **Thermal/Fluids** area, suggested electives are:

- 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:

- ME 3325 Advanced Machine Design 3
- ME 3353 Manufacturing Processes 3
- ME 4425 Mechatronics 3
- CE 4431 Advanced Mechanics of Solids 3

For students interested in focusing their ME degree in the **Energy** area, suggested electives are:

- 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

**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. 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. F

**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. 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. PREREQ: ME 2266, ENGR/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/ME 3350. PREREQ: 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, ME 2222, and ME 3320. S

**ME 3325 Advanced Machine Design:** 3 semester hours.
Statistical methods for design, failure analysis, advanced machine component design. PREREQ: ME 3323. D

**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

**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/ME 2210. 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 4425 Mechatronics: 3 semester hours.
Basic kinematics, sensors, actuators, measurements, electronics, microprocessors, programmable logic controllers, feedback control, robotics and intelligent manufacturing. PREREQ: ME 4473 or EE 4473 and MATH 3360. 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: ME 4473 and MATH 3360. PREREQ OR COREQ: ME 3323. S

ME 4443 Thermal Fluids Laboratory: 1 semester hour.
Measurement of thermal and fluid properties, experiments on fluid flow and heat transfer systems. PREREQ: ME 3341. COREQ: ME 4476. F

ME 4445 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 4446 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 3323, ME 4406, and ME 4440. F

ME 4447 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 3341 and ME 4476. S

ME 4449 Experimental Course: 1-3 semester hour.

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 3323, ME 4406, and ME 4440. F

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 3341 and ME 4476. S

ME 4473 Mechanical Control Systems: 3 semester hours.
Discrete and continuous time control system design, signal processing, embedded systems. PREREQ: ME 2220, EE 2240, and MATH 3360. F

ME 4474 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 and 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 hour.
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 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 4498A 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 4498B 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 hour.
Department of Nuclear Engineering and Health Physics

Faculty
Acting Chair and Associate Professor
Dunzik-Gougar

Professors
Brey
Imel

Associate Professors
Burgett
Harris

Assistant Professor
Pope

Emeritus Faculty
Gesell
Kunze

Laboratory Supervisors
Claver
Dunker

Reactor Supervisor
Mallicoat

Nuclear Engineering
The Department of Nuclear Engineering and Health Physics 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
1. Our graduates will be active in the nuclear industry or related fields, making contributions to its advancement, either in industry, research, or academics.
2. Our graduates will have a record of accomplishment in the nuclear industry.
3. Our graduates will engage in lifelong learning, keeping abreast of advancements in their fields.

Health Physics
The Department of Nuclear Engineering 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 which 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. 47) 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.

Declaring a Nuclear Engineering Major
Key Courses
1. No key course may be repeated more than twice and any remaining key courses must be completed by the end of the first semester following the declaration.

2. Upon making the declaration and submitting the proper form, if approved, students become eligible to enroll in upper division engineering courses (i.e., those numbered 3000 or above). The student will not be allowed to register for any School of Engineering upper-division course until the declaration has been approved.

**Bachelor of Science in Nuclear Engineering**

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. 47) described in the Academic Information section of this catalog). The program of study for the Bachelor of Science in Nuclear Engineering degree totals 126 credits (minimum) as follows. Some of the required courses also satisfy or partially satisfy General Education Objectives, as noted.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
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<td>MATH 1175</td>
<td>Calculus II</td>
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<td>and General Chemistry I Lab</td>
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<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>8</td>
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<tr>
<td>&amp; PHYS 2212</td>
<td>and Engineering Physics II</td>
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<tr>
<td>NE 1120</td>
<td>Introduction to Nuclear Engineering</td>
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<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
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</tr>
<tr>
<td>CE 1105</td>
<td>Engineering Graphics</td>
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<td>CE 2210</td>
<td>Engineering Statics</td>
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<td>ENGR 2223</td>
<td>Materials and Measurements</td>
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<td>&amp; ENGR 2224</td>
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<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
<td>3</td>
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<tr>
<td>CE/ME 2220</td>
<td>Engineering Dynamics</td>
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<td>BIOL 1101</td>
<td>Biology I</td>
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<td>&amp; 1101L</td>
<td>and Biology I Lab (partially satisfies General Education Objective 5)</td>
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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
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<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
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<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
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<td>CHEM 1102</td>
<td>Introduction to Organic and Biochemistry</td>
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<td>&amp; CHEM 1103</td>
<td>and Introduction to General Organic and Biochemistry Laboratory (partially satisfies General Education Objective 5)</td>
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<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
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<td>COMM 1101</td>
<td>Principles of Speech</td>
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<td>CS/NE 1181</td>
<td>Computer Science and Programming I</td>
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<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
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<td>NE 4419</td>
<td>Energy Systems and Nuclear Power</td>
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<td>NE 4445</td>
<td>Reactor Physics</td>
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<td>PHYS 2211</td>
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**Bachelor of Science in 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. 47) described in the Academic Information section of this catalog).

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<th>Course Code</th>
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<td>BIOL 3301</td>
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<td>Anatomy and Physiology</td>
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<td>Introduction to Nuclear Measurements</td>
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<td>HPHY 4432</td>
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<td>HPHY 4433</td>
<td>External Dosimetry</td>
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<td>HPHY 4434</td>
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<td>HPHY 4455</td>
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<td>HPHY 4488</td>
<td>Advanced Radiobiology</td>
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<td>MATH 3350</td>
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<td>PHYS 2211</td>
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<tr>
<td>&amp; PHYS 2212</td>
<td>and Engineering Physics II</td>
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</table>
PHYS 2213 Engineering Physics I Laboratory 2
& PHYS 2214 and Engineering Physics II Laboratory
NE 4451 Nuclear Seminar 1

Associate of Science in 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. 47) described in the Academic Information section of this catalog.)

Biology I 4
PHYS 1101 Biology I
and BIOL 1101L
BIO/HPHY 3307 Radiobiology 2
CHEM 1111 General Chemistry I 5
& 1111L and General Chemistry I Lab
CHEM 1112 General Chemistry II 4
& 1112L and General Chemistry II Lab
COMM 1101 Principles of Speech 3
ENGL 1102 Critical Reading and Writing 3
ECON 1100 Economic Issues 3
MATH 1147 Precalculus 5
or
MATH 1143 College Algebra 5
& MATH 1144 and Trigonometry
MATH 1153 Introduction to Statistics 3
PHIL 1101 Introduction to Philosophy 3
PHYS 1111 General Physics 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 General Psychology 3

Bachelor of Science in Nuclear Engineering
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. 47) described in the Academic Information section of this catalog). The program of study for the Bachelor of Science in Nuclear Engineering degree totals 125 credits (minimum) as follows. Some of the required courses also satisfy or partially satisfy General Education Objectives, as noted.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>5 CE 1105</td>
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<td>(Partially satisfies General Education Objective 5)</td>
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<tr>
<td>ENGL 1102</td>
<td>3 COMM 1101</td>
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<td>MATH 1170</td>
<td>4 MATH 1175</td>
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<td>(Satisfies General Education Objective 3)</td>
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<td>NE 1120</td>
<td>1 (Partially satisfies General Education Objective 5)</td>
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<tr>
<th>Objective 4: Humanities, Fine Arts, Language</th>
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<th>Second Year</th>
<th>Hours</th>
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<th>Spring</th>
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<td>CE 2210 or ME 2210</td>
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<td>4 ENGR 2220</td>
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<td>ME 3322</td>
<td>3 MATH 2240</td>
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<td>PHYS 2212</td>
<td>4 MATH 3360</td>
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<td>3 EE 2240</td>
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<td>3 HPHY 4416</td>
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<tr>
<td>Objective 6: Behavioral/Social Science</td>
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<td>3 Objective 4: Humanities/ Fine Arts/ Language</td>
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<td>NE 4445</td>
<td>3 NE 4447</td>
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<td>NE 4496A</td>
<td>1 NE 4451</td>
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<td>3 NE 4496B</td>
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<td>Objective 9: Cultural Diversity</td>
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<td>14</td>
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</table>

Total Hours: 125

Free Electives:

Any course may be used as a free elective. Students are encouraged to take courses outside science and engineering for these credits.

NE Electives:

Nuclear Engineering students must select one NE Elective course. The following list shows those that are pre-approved. Students are encouraged to consult with
their advisor in order to choose appropriate electives, as there may be other new or special courses to choose from that do not appear on this list. (Note that non-NE courses listed here may have required prerequisites that are not part of the NE program. These prerequisite courses may be used as Engineering Electives.)

| NE/ME 4473 | Automatic Control Systems | 3 |
| MATH 4422 | Advanced Engineering Mathematics II | 3 |
| ENVE 4404 | Environmental Risk Assessment | 3 |
| ME 4405 | Measurement Systems Design | 3 |
| ME 4416 | Thermal Power Cycles | 3 |
| ME 4451 | Compressible Fluid Flow | 3 |
| NE 4487 | Medical Applications in Engineering and Physics | 3 |
| PHYS 3301 | Modern Physics | 3 |
| PHYS 4403 | Advanced Modern Physics I | 3 |
| PHYS 4409 | Introductory Nuclear Physics | 3 |
| HPHY 4412 | Environmental Health Physics | 3 |
| HPHY 4433 | External Dosimetry | 3 |
| HPHY 4434 | Internal Dosimetry | 3 |
| NE 4488 | Nonproliferation and Nuclear Weapons and Safeguards | 3 |

**Engineering Electives:**

The engineering elective course must be an upper-division engineering course from outside the NE discipline. Students are encouraged to consult with their advisor in order to choose courses that will complement their engineering education. Course offerings change and advisors will be knowledgeable of those changes.

**Associate of Science in Health Physics**

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Students must fulfill 8 of the 9 University General Education Requirements (a minimum of 36 credits—see the General Education Requirements (p. 47) described in the Academic Information section of this catalog).

**Curriculum**

<table>
<thead>
<tr>
<th>Summer</th>
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<tr>
<td>HPHY 2217</td>
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Optional

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<th>Spring</th>
<th>Hours</th>
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<td>BIOL 1101 &amp; 1101L</td>
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<td>COMM 1101</td>
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<td>ENGL 1101 or 1101P</td>
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<td>ECON 1100</td>
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<td>Or</td>
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<td>MATH 1153</td>
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<tr>
<td>MATH 1143 &amp; MATH 1144</td>
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<td>HPHY 2226</td>
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<td>HPHY 2218</td>
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**Second Year**

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<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HPHY 2219</td>
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<td>CHEM 1111 &amp; 1111L</td>
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<td>BIOL 3307</td>
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<td>Objective Course</td>
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Total Hours: 78

1. HPHY 2217 is optional. Students interested in taking this course should take it during the summer before the First Year.
2. HPHY 2219 should be taken during the summer following the First Year.

**Health Physics 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

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18 20
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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times. 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 hour.
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

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 hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

### Nuclear Engr Courses

#### NE 1120 Introduction to Nuclear Engineering: 1 semester hour.
Introduction to the engineering profession and to nuclear engineering in particular. F, S
NE 1181 Structured Programming: 2 semester hours.
Problem solving methods and algorithm development with an emphasis on programming style. Lecture. Equivalent to CS 1181. PREREQ or COREQ: MATH 1147 or equivalent. 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 hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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. S

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. F

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 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 hour.
Department of Geosciences

Faculty

Chair and Associate Professor
Leif Tapanila

Professors
Finney
Link
McCurry
Rodgers
Thackray

Associate Professor
Crosby

Assistant Professors
Delparte
Godsey
Kobs
Lohse
Pearson

Research Assistant Professor
Shapley

Assistant Lecturer
Bottenberg
Lori Tapanila

Affiliate Faculty
Dehler
Glenn
Heath
Mahar
Plummer
Rittenour
Sherwin
Smith
Welhan

GIS Trec Affiliate
Weber

Emeriti
Blount
Fortsch
Hughes
Ore

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 taken GEOL 1100 and GEOL 1100L, or GEOL 1101 and GEOL 1101L, and who have decided to major in geology, must take GEOL 1110, which is the prerequisite 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, GEOL 1101L, and GEOL 1110.

Admittance to Geosciences Major

Idaho State University recognizes three categories with regard to a student’s major status:

P—Pre-Major

1. In the process of applying to Idaho State University, the student may indicate a preference for the Geosciences major. This is not the same as actually having a major in Geosciences.

I—Intending to Major

1. Declare a Geosciences major in the Geosciences Department office;
2. Meet with an advisor and outline a plan of study.

A—Admitted to Geosciences Major

1. Earn a grade of “C” or better in GEOL 1100 or GEOL 1101 (3 cr.);
2. Earn a grade of “C” or better in GEOL 1110 (1 cr.).
4. Choose one or more of the degrees available in Geosciences.

**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. Students must fulfill 8 of the 9 university General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 47) in the Academic Information section of this Catalog).

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 1111L</td>
<td>and General Chemistry I Lab</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1147</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth</td>
<td>3</td>
</tr>
<tr>
<td>or GEOL 1101</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 2202</td>
<td>Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 2210</td>
<td>Earth in Space and Time</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 3313</td>
<td>Earth Materials I</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 3315</td>
<td>Evolution of the Earth's Surface</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 4421</td>
<td>Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 4431</td>
<td>Geobiology and the History of Life</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 4452</td>
<td>Sedimentation-Stratigraphy</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 4456</td>
<td>Geology of Idaho</td>
<td>2-3</td>
</tr>
<tr>
<td>or GEOL 4458</td>
<td>Geology of North America</td>
<td>4</td>
</tr>
<tr>
<td>Plus 8 to 9 other upper division geoscience credits to equal 40 credits.</td>
<td>8-9</td>
<td></td>
</tr>
</tbody>
</table>

**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. Students must fulfill 8 of the 9 University General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 47) in the Academic Information section of this catalog).

**Required Courses:**

<table>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>MATH 1147</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 3350</td>
<td>Statistical Methods</td>
<td></td>
</tr>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
<td>5</td>
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<tr>
<td>&amp; 1111L</td>
<td>and General Chemistry I Lab</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1112</td>
<td>General Chemistry II</td>
<td>4</td>
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<tr>
<td>&amp; 1112L</td>
<td>and General Chemistry II Lab</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
<td>6-8</td>
</tr>
<tr>
<td>&amp; PHYS 1112</td>
<td>and General Physics II</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 2211</td>
<td>Engineering Physics I</td>
<td>3</td>
</tr>
<tr>
<td>&amp; PHYS 2212</td>
<td>and Engineering Physics II</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth</td>
<td>3</td>
</tr>
<tr>
<td>or GEOL 1101</td>
<td>Physical Geology</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 2102</td>
<td>Historical Geology</td>
<td>3</td>
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<tr>
<td>GEOL 2210</td>
<td>Earth in Space and Time</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 3313</td>
<td>Earth Materials I</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 3314</td>
<td>Earth Materials II</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 3315</td>
<td>Evolution of the Earth's Surface</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 4403</td>
<td>Principles of Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 4403L</td>
<td>and Principles of GIS Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4421</td>
<td>Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 4450</td>
<td>Field Geology</td>
<td>6</td>
</tr>
<tr>
<td>GEOL 4452</td>
<td>Sedimentation-Stratigraphy</td>
<td>4</td>
</tr>
</tbody>
</table>

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 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE/GEOL 4454</td>
<td>Basic Engineering Geology</td>
<td>3</td>
</tr>
<tr>
<td>CE/GEOL 4455</td>
<td>Geologic Data Methods</td>
<td>3</td>
</tr>
<tr>
<td>CE/GEOL 4475</td>
<td>Essentials of Geomechanics</td>
<td>3</td>
</tr>
<tr>
<td>CE/GEOL 4476</td>
<td>Engineering Geology Project</td>
<td>1</td>
</tr>
<tr>
<td>CE 4480</td>
<td>Earthquake Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor in Geology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth</td>
<td>3</td>
</tr>
<tr>
<td>or GEOL 1101</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 2202</td>
<td>Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 2210</td>
<td>Earth in Space and Time</td>
<td>3</td>
</tr>
</tbody>
</table>

**In Addition:**

Upper Division Geology electives approved by the Department | 12          |

**Total Hours** | 22            |

**Minor in GeoTechnology**

**Core Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 4403</td>
<td>Principles of Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 4403L</td>
<td>and Principles of GIS Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4404</td>
<td>Advanced Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4407</td>
<td>GPS Applications in Research</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4408</td>
<td>GeoTechnology Seminar</td>
<td>1-2</td>
</tr>
<tr>
<td>or BIOL 4418</td>
<td>Ecological Topics</td>
<td>3</td>
</tr>
</tbody>
</table>
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. 47) 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. The student then chooses one of three tracks composed of courses in Geosciences and related disciplines.

Required Core Courses (41 credits)

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 science, mathematics, statistics and social sciences. Some of these courses may satisfy General Education requirements.

GEOL 1100 The Dynamic Earth
& 1100L and The Dynamic Earth Lab
or GEOL Physical Geology
1101/1101L

GEOL 1110 Physical Geology for Scientists Laboratory 1
GEOL 3306 Environmental Geology 3
GEOL 3315 Evolution of the Earth’s Surface 4
GEOL 4403 Principles of Geographic Information Systems 3
GEOL 4416 Global Environmental Change 3
GEOL 4492 Earth and Environmental Systems Seminar 1
BIOL 1101 Biology I
& 1101L and Biology I Lab
BIOL 1102 Biology II
& 1102L and Biology II Lab
BIOL 2209 General Ecology
& 2209L and General Ecology Laboratory
CHEM 1111 General Chemistry I
& 1111L and General Chemistry I Lab
MATH 1147 Precalculus ((B.A.)) 5

Recommended:
ENGL 3307 Professional and Technical Writing 3

Tracks - students must choose one emphasis area from the three described below (32-36 credits)

1. BS Environmental Systems Track

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.

Select two courses from the following:

GEOL 4402 Geomorphology 4
& 4402L and Geomorphology Lab
GEOL 4430 Principles of Hydrogeology 3
GEOL 4451 Field Methods in Environmental Sciences 3

Or other approved courses in watershed hydrology or soils/critical zone processes.

Select two courses from the following:

BIOL 4416 Population Ecology 4
& 4416L and Population Ecology Lab
BIOL 4462 Freshwater Ecology 4
& 4462L and Freshwater Ecology Lab
BIOL 4489 Field Ecology 4
GEOL 4490 Ecosystem Ecology and Global Changes 4

Required Courses:

CHEM 1112 General Chemistry II
& 1112L and General Chemistry II Lab

Cross-disciplinary tracks: 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, Chemistry, Physics, and social sciences.

• BS in Geospatial Systems: Upper division geotechnologies courses in Geosciences and History, with supporting courses in Mathematics and social sciences.

Electives (at least 5 credits):

ANTH 4482 Independent Problems in Anthropology 1-3
BIOL 4482 Independent Problems 1-4
GEOL 2210 Earth in Space and Time 3
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 Hours 13-14

Total Hours 14-25
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.

**Required Courses:**
- GEOL 4410 Science in American Society 2
- HIST 4430 Global Environmental History 3
- HIST 4432 U.S. Environmental History 3
- HIST 4485 Historical Geography of National Parks 3
- HIST 4489 GIS for Social Sciences 3
- HIST 4490 Cartography History and Design 4
  & 4490L and Cartography Lab
- POLS 4455 Environmental Politics and Policy 3
- POLS 4466 Public Lands Policy 3
- ANTH 4402 Ecological Anthropology 3
- ECON 3352 Environmental Economics 3
- PHIL 4455 Environmental Ethics 3
- SOC 3335 Population and Environment 3

**Select one elective, not used to satisfy other requirements, from the following:**
- GEOL 4410 Science in American Society 2
- HIST 4430 Global Environmental History 3
- HIST 4432 U.S. Environmental History 3
- HIST 4485 Historical Geography of National Parks 3
- HIST 4489 GIS for Social Sciences 3
- HIST 4490 Cartography History and Design 4
  & 4490L and Cartography Lab
- POLS 4455 Environmental Politics and Policy 3
- POLS 4466 Public Lands Policy 3
- ANTH 4402 Ecological Anthropology 3
- ECON 3352 Environmental Economics 3
- PHIL 4455 Environmental Ethics 3
- SOC 3335 Population and Environment 3

**3. BA Environmental Systems Track**

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 in careers related to environmental policy and management.

**Required Courses:**
- GEOL 4410 Science in American Society 2
- HIST 4430 Global Environmental History 3
- POLS 4455 Environmental Politics and Policy 3
- ECON 2201 Principles of Macroeconomics 3
- ECON 2202 Principles of Microeconomics 3
- PHIL 4455 Environmental Ethics 3
- or PHIL 2250 Contemporary Moral Problems
- MATH 1153 Introduction to Statistics 3
  or MATH 3350 Statistical Methods 3

**Select one methods course from the following:**
- SOC 3308 Sociological Methods and Social Work Research 3
- POLS 4453 Public Policy Analysis 3
- HIST 2921 The Historian’s Craft 3

**Select three elective courses, not used to satisfy other requirements, from the following:**
- POLS 2221 Introduction to International Relations 3
- POLS 4408 Urban Spaces 3
- POLS 4409 Community Planning 3
- POLS 4453 Public Policy Analysis 3
- GEOL/HIST 4471 Historical Geography of Idaho 3
- HIST 4432 U.S. Environmental History 3
- HIST 4485 Historical Geography of National Parks 3
- HIST 4489 GIS for Social Sciences 3
- HIST 4490 Cartography History and Design 4
  & 4490L and Cartography Lab
- POLS 4466 Public Lands Policy 3
- ANTH 4402 Ecological Anthropology 3
- ECON 3352 Environmental Economics 3
- SOC 3335 Population and Environment 3

**2. BS Geospatial Systems Track**

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.

**Required Courses:**
- GEOL 4410 Advanced Geographic Information Systems 3
- GEOL 4407 GPS 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:**
- MATH 1160 Applied Calculus 3-4
  or MATH 1170 Calculus I
- MATH 3350 Statistical Methods 3

**Select one course from the following:**
- GEOL 4410 Science in American Society 2
- GEOL 4430 Principles of Hydrogeology 3
- GEOL 4455 Geologic Data Methods 3

Select one elective, not used to satisfy other requirements, from the following:
- GEOL 4410 Science in American Society 2
- GEOL/HIST 4471 Historical Geography of Idaho 3
- HIST 4430 Global Environmental History 3
- HIST 4432 U.S. Environmental History 3
- HIST 4485 Historical Geography of National Parks 3
- HIST 4489 GIS for Social Sciences 3
- HIST 4490 Cartography History and Design 4
  & 4490L and Cartography Lab
- POLS 4455 Environmental Politics and Policy 3
- POLS 4466 Public Lands Policy 3
- ANTH 4402 Ecological Anthropology 3
- ECON 3352 Environmental Economics 3
- PHIL 4455 Environmental Ethics 3
- SOC 3335 Population and Environment 3

**Recommended:**
- BIOL 3316 Biometry Laboratory 1
- Select one course from the following:
  - GEOL 4410 Science in American Society 2
  - HIST 4430 Global Environmental History 3
  - POLS 4455 Environmental Politics and Policy 3

Select one elective, not used to satisfy other requirements, from the following:
- GEOL 4410 Science in American Society 2
- HIST 4430 Global Environmental History 3
- HIST 4432 U.S. Environmental History 3
- HIST 4485 Historical Geography of National Parks 3
- HIST 4489 GIS for Social Sciences 3
- HIST 4490 Cartography History and Design 4
  & 4490L and Cartography Lab
- POLS 4455 Environmental Politics and Policy 3
- POLS 4466 Public Lands Policy 3
- ANTH 4402 Ecological Anthropology 3
- ECON 3352 Environmental Economics 3
- PHIL 4455 Environmental Ethics 3
- SOC 3335 Population and Environment 3

**3. BS Geospatial Systems Track**

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.

**Required Courses:**
- GEOL 4410 Advanced Geographic Information Systems 3
- GEOL 4407 GPS 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:**
- MATH 1160 Applied Calculus 3-4
  or MATH 1170 Calculus I
- MATH 3350 Statistical Methods 3

**Select one course from the following:**
- GEOL 4410 Science in American Society 2
- GEOL 4430 Principles of Hydrogeology 3
- GEOL 4455 Geologic Data Methods 3

Select one elective, not used to satisfy other requirements, from the following:
- GEOL 4410 Science in American Society 2
- GEOL/HIST 4471 Historical Geography of Idaho 3
- HIST 4430 Global Environmental History 3
- HIST 4432 U.S. Environmental History 3
- HIST 4485 Historical Geography of National Parks 3
- HIST 4489 GIS for Social Sciences 3
- HIST 4490 Cartography History and Design 4
  & 4490L and Cartography Lab
- POLS 4455 Environmental Politics and Policy 3
- POLS 4466 Public Lands Policy 3
- ANTH 4402 Ecological Anthropology 3
- ECON 3352 Environmental Economics 3
- PHIL 4455 Environmental Ethics 3
- SOC 3335 Population and Environment 3

**Recommended:**
- BIOL 3316 Biometry Laboratory 1
- Select one course from the following:
  - GEOL 4410 Science in American Society 2
  - HIST 4430 Global Environmental History 3
  - POLS 4455 Environmental Politics and Policy 3

Select one elective, not used to satisfy other requirements, from the following:
- GEOL 4410 Science in American Society 2
- GEOL/HIST 4471 Historical Geography of Idaho 3
- HIST 4430 Global Environmental History 3
- HIST 4432 U.S. Environmental History 3
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- ECON 3352 Environmental Economics 3
- PHIL 4455 Environmental Ethics 3
- SOC 3335 Population and Environment 3

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SOC 4491 Topics in Sociology 3
Or other approved electives

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. F, S, ASu

**GEOL 1101L Physical Geology Lab: 1 semester hour.**

**GEOL 1108 Exploring Data and Information: 3 semester hours.**
Discover, evaluate, analyze and visualize information and data from across the natural and applied sciences efficiently and ethically. Learn how to find reliable data sources, design sampling efforts, and manage a variety of data. Course themes used to illustrate topics will vary with instructor. PREREQ: C+ or better in MATH 1108 or equivalent. COREQ: GEOL 1108L. Satisfies Objective 8 of the General Education Requirements. F, S

**GEOL 1108L Exploring Information Lab: 0 semester hours.**
Graded S/U. COREQ: GEOL 1108. F, S

**GEOL 1110 Physical Geology for Scientists Laboratory: 1 semester hour.**
Identification and classification of minerals, rocks, and fossils; introduction to geologic maps and plate tectonics. Field trips. Required for Geology majors. May be taken in place of GEOL 1100 or GEOL 1101L. PRE-OR-COREQ: GEOL 1100 or GEOL 1101. Partially satisfies Objective 5 of the General Education Requirements. F, S

**GEOL 1199 Experimental Course: 1-6 semester hours.**
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

**GEOL 2202 Historical Geology: 3 semester hours.**
Major events in earth history; continental drift, age dating, evolution of organisms, times of extinction, mountain building, episodes of world glaciation. PREREQ: GEOL 1100 or GEOL 1101. F

**GEOL 2210 Earth in Space and Time: 3 semester hours.**
Tools-oriented course in map coordinates, GPS, basic GIS and remote sensing, spread sheets and data analysis. Includes applications to geologic maps, cross sections, and Geologic Time Scale. PREREQ: GEOL 1100 or GEOL 1101. PREOR COREQ: GEOL 1110. F, S

**GEOL 2282 Undergraduate Laboratory Experience: 1-3 semester hour.**
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 or COREQ: GEOL 1100 or GEOL 1101. Graded S/U. F, S, Su

**GEOL 3306 Environmental Geology: 3 semester hours.**
Humans and the environment. Topics include: industrial exploitation of fossil fuels, energy sources, soils, water and other materials, environmental health, pollution, waste disposal, hazards, disasters, and land use. PREREQ: GEOL 1100 or GEOL 1101. 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 1110. 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 2210 and 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 1100 or GEOL 1101, and GEOL 1110. S

**GEOL 4400 Practicum in Geology Teaching: 1 semester hour.**
Practical problems in teaching geology in public schools. Lab and field trip design and safety, Internet resources, student projects. PREREQ: GEOL 2210. AF

**GEOL 4402 Geomorphology: 4 semester hours.**
Process-response approach to landforms and landscapes. Historical perspectives, endo- and exogenic processes, equilibrium and relict landforms. Emphasis on interrelations among various geologic sub-disciplines. Field trips, some lab exercises. PREREQ: GEOL 3313, GEOL 3315, or consent of instructor. COREQ: GEOL 4402L. F

**GEOL 4402L Geomorphology Lab: 0 semester hours.**
Assignments to apply principles from GEOL 4402. COREQ: GEOL 4402. F

**GEOL 4403 Principles of Geographic Information Systems: 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. 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, including spatial analysis, and remote sensing. Practical application of Arc/Info? and Idrisi?. Exercises include digitizing, querying, digital terrain modeling, and image processing. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. 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 Applications in Research: 3 semester hours.**
Overview of satellite positioning systems usage. Topics include GPS theory, basic mapping concepts, use of mapping grade receivers for GIS data collection, and processing of carrier phase data for high precision applications. 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 single frequency, multispectral, and hyperspectral remote sensing for physical, natural, engineering, and social sciences. Emphasis on acquiring, processing, integrating, and interpretation of imagery. Requires competence in computer operating systems. S

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. Equivalent to PHYS 4410. 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. AF

GEOL 4412 Petrology Laboratory: 2 semester hours.
Microscopic identification of igneous and metamorphic minerals and rocks. PREREQ: GEOL 2210 and GEOL 3313; COREQ: GEOL 4411. AF

GEOL 4413 Sedimentary Rocks in Thin Section: 2 semester hours.
A variety of terrigenous, volcaniclastic, and carbonate rocks will be studied. PREREQ or COREQ: GEOL 4411. AF

GEOL 4415 Quaternary Global Change: 3 semester hours.
Use and interpretation of landforms, sediments, and fossil life in the reconstruction of Quaternary events, environment, and climates. AS

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 2210, GEOL 4406, and BIOL 2209. AS

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. F

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. F

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. S

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. S

GEOL 4421L Structural Geology Laboratory: 0 semester hours.
Assignments to apply principles in GEOL 4421. S

GEOL 4422 Planetary Geology: 3 semester hours.
Formation of planetary bodies (planets, moons, asteroids and comets), internal and surficial processes, tectonics, and planetary exploration. PREREQ: GEOL 1100 or GEOL 1101 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 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 1100 or GEOL 1101 or permission of instructor. F

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; GEOL 2202 recommended. COREQ: GEOL 4431L. F

GEOL 4431L Invertebrate Paleontology Lab: 0 semester hours.
Assignments to apply principles from GEOL 4431. COREQ: GEOL 4431. F

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. AS

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: GEOL 3314, GEOL 4452 (recommended), or GEOL 4421. AF

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 with an Earth systems focus. Analysis of topographic and vegetational data, hydrologic methods, riverine processes and habitat, and soil characteristics, emphasizing use of GIS, GPS, remote sensing and other geotechnologies. Two-week summer course at Lost River Field Station. PREREQ: GEOL 4403, either GEOL 4415 or GEOL 4416, and BIOL 2209. Su

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 2210 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 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 1100 or GEOL 1101. 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

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. D

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 mechanics. Equivalent to CE 4475. PREREQ: GEOL 4421 or CE/ENGR/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 hour.
Visual Basic programming for GIS. PREREQ: GEOL 4403 and GEOL 4403L and permission of instructor. F, S

GEOL 4481 GeoTechnology Internship: 1-3 semester hour.
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 hour.
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 1101, BIOL 1102, BIOL 2209, GEOL 1101, and GEOL 1101L, 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 Earth Systems Science, incorporating physical science, life science, and social science. May be repeated once. PREREQ: Junior or senior standing or permission of instructor. S

GEOL 4493 Senior Thesis: 1-4 semester hour.
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 4497 Workshop: 1-2 semester hour.
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

GEOL 4499 Experimental Course: 1-6 semester hour.
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times
Department of Mathematics

Faculty
Chair and Professor
Fisher

Assistant Chair and Professor
Laquer

Professors
Hanin
Kriloff
Palmer
Payne
Stowe
Wolper

Associate professors
S. Chen
Y. Chen
Derryberry
Gironella
Gryazin
W. Zhu

Assistant professor
Y. Zhu

Visiting Assistant Professor
Foster-Greenwood

Senior Lecturers
Potter
Walker

Associate Lecturers
Jones
Kress
Martin
Mills
Reed

Assistant Lecturer
Alexander
Bowen
Christiansen
Jacobsen
Qu

Part-time Adjunct Faculty
Barclay
Dewey
Harmon
Judy
Larish
Mayes
Rude

Emeriti
Cresswell
Ford
L. Hill
R. Hill

Kratz
Lang
Parker

Objectives

The undergraduate programs in Mathematics 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 Core

All bachelor degrees offered in the Department of Mathematics have a common core consisting of the following six courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1181</td>
<td>Computer Science and Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3326</td>
<td>Elementary Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 21

1. The two courses, ME 1165, Structured Programming, and ME 2266, Symbolic Programming, may be substituted for CS 1181.

Bachelor of Science in 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. 47) in the Academic Information section of this catalog).

Required Courses:
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 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 Modern Algebra I
  & MATH 4408 Modern Algebra II
- 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 4450 Mathematical Statistics I
  & MATH 4451 Mathematical Statistics II

Bachelor of Science in 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. 47) in the Academic Information section of this catalog.)

Required Courses (39 credits):
- Mathematics Core (Shown above) 21
  MATH 3350 Statistical Methods 3
- MATH 3352 Introduction to Probability 3
- MATH 4450 Mathematical Statistics I 3
  & MATH 4451 Mathematical Statistics II
- MATH 4457 Applied Regression Analysis 3
- MATH 4458 Experimental Design 3

Additional Courses (9 credits):
- 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.

Associate of Science in Mathematics

Students seeking an Associate of Science degree in Mathematics must complete the following:

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 Mathematics in Modern Society 3
- MATH 1127 The Language of Mathematics 3
- MATH 1130 Finite Mathematics 3
- MATH 1144 Trigonometry 2 2
- MATH 1160 Applied Calculus 3
- MATH 1153 Introduction to Statistics 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 64 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 waivered 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 (See above) 21
- MATH 3360 Differential Equations 3

Select ONE of the following: 3
- MATH 3352 Introduction to Probability
- MATH 4421 Advanced Engineering Mathematics I
- MATH 4441 Introduction to Numerical Analysis I
- MATH 4465 Partial Differential Equations

Minor in Mathematics

Mathematics Core (See above) 21
- MATH 3360 Differential Equations 3

Select TWO of the following: 6
- MATH 3327 Vector Analysis
- MATH 3343 Modern Geometry I
- MATH 3352 Introduction to Probability
- MATH 3360 Differential Equations
- MATH 3362 Introduction to Complex Variables
- MATH 4407 Modern Algebra I
- MATH 4408 Modern Algebra II
- MATH 4423 Introduction to Real Analysis I
- MATH 4424 Introduction to Real Analysis II
## Minor in Statistics

### Required Courses (27 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics Core (See above)</td>
<td>21</td>
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<tr>
<td>MATH 3350</td>
<td>Statistical Methods</td>
<td>3</td>
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<tr>
<td>MATH 3352</td>
<td>Introduction to Probability</td>
<td>3</td>
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<tr>
<td><strong>Select ONE of the following:</strong></td>
<td>3</td>
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<tr>
<td>MATH 4450</td>
<td>Mathematical Statistics I</td>
<td></td>
</tr>
<tr>
<td>MATH 4451</td>
<td>Mathematical Statistics II</td>
<td></td>
</tr>
<tr>
<td>MATH 4453</td>
<td>Topics in Statistics</td>
<td></td>
</tr>
<tr>
<td>MATH 4457</td>
<td>Applied Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>MATH 4458</td>
<td>Experimental Design</td>
<td></td>
</tr>
<tr>
<td>MATH 4459</td>
<td>Applied Multivariate Analysis</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
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.

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 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. MATH 2275. F

MATH 3343 Modern Geometry I: 3 semester hours.
Plane Euclidean 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 3355 Operations Research: 3 semester hours.
Deterministic problems in operations research oriented towards business. Includes linear programming, transportation problems, network analysis, PERT, dynamic programming, and elementary game theory. PREREQ: MATH 1130 or MATH 2240, or permission of instructor. D

MATH 3356 Operations Research II: 3 semester hours.
Probabilistic models oriented towards business are treated. Selections from stochastic processes, Markov chains, queuing theory, inventory theory, reliability, decision analysis and simulation. PREREQ: MATH 3355. D

MATH 3360 Differential Equations: 3 semester hours.
Theory and applications of ordinary differential equations. PREREQ: MATH 1175; 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 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 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, limits, sequences, series and convergence; metric spaces; completeness; and selected topics on measure and integration theory. PREREQ: MATH 2240, MATH 3326, and MATH 3360. F

MATH 4424 Introduction to Real Analysis II: 3 semester hours.
The real number system, limits, sequences, series and convergence; metric spaces; completeness; and selected topics on measure and integration theory. PREREQ: MATH 4423. S

MATH 4435 Elementary Number Theory: 3 semester hours.
Diophantine equations, prime number theorems, residue systems, theorems of Fermat and Wilson, and continued fractions. PREREQ: MATH 4407. D

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 hour.
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 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 4473 Introduction to Topology: 3 semester hours.
Metric spaces; convergence; notions of continuity; connected, separable and compact spaces. PREREQ: Permission of instructor. D

MATH 4481 Directed Readings and Problems: 1-3 semester hour.
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 hour.
Advanced reading and discussion on selected topics in mathematics. May be repeated. PREREQ: 90 credits or equivalent. D

MATH 4499 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Department of Physics

Faculty
Chair and Professor
Khandaker

Professors
Cole
Dale
Shropshire

Associate Professors
Forest
Tatar

Research Associate Professor
Chouffani
Hunt

Assistant Professor
McNulty

Senior Lecturer
Hackworth

Lecturer
Bernabee

Adjunct Faculty
Franckowiak
Hobdey
Hoskins
Millward

Affiliate Faculty
Starovoitova
Wells

Emeriti
Beezhold
Harmon
Parker

Physics

Students who wish to major in physics will take courses which will prepare them for industrial or governmental positions or for graduate study in physics or allied fields.

The department 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. These programs consist 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 which 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 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.

Bachelor of Arts in 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. 47) 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>At least 24 credits of Physics, including:</td>
<td></td>
<td>24</td>
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<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>6-8</td>
</tr>
<tr>
<td>&amp; PHYS 2212</td>
<td>and Engineering Physics II</td>
<td></td>
</tr>
<tr>
<td>or PHYS 1111</td>
<td>General Physics</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 1112</td>
<td>and General Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>&amp; PHYS 2214</td>
<td>and Engineering Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>or PHYS 1113</td>
<td>General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 1114</td>
<td>and General Physics II Laboratory</td>
<td></td>
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<tr>
<td>PHYS 3301</td>
<td>Modern Physics</td>
<td>3</td>
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<tr>
<td>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).</td>
<td></td>
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</tr>
</tbody>
</table>

Bachelor of Science in 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CHEM 1111</td>
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<td>and General Chemistry I Lab</td>
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<tr>
<td>CHEM 1112</td>
<td>General Chemistry II</td>
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<tr>
<td>&amp; 1112L</td>
<td>and General Chemistry II Lab</td>
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<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Semester Hours</td>
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</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4421</td>
<td>Advanced Engineering Mathematics I</td>
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<td>&amp; MATH 4422</td>
<td>and Advanced Engineering Mathematics II</td>
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<tr>
<td>or PHYS 4461</td>
<td>Introduction to Mathematical Physics I</td>
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<td>&amp; PHYS 4462</td>
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<td>PHYS 2211</td>
<td>Engineering Physics I</td>
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<tr>
<td>&amp; PHYS 2212</td>
<td>and Engineering Physics II</td>
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<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>&amp; PHYS 2214</td>
<td>and Engineering Physics II Laboratory</td>
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<tr>
<td>PHYS 3301</td>
<td>Modern Physics</td>
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<tr>
<td>PHYS 3313</td>
<td>Intermediate Laboratory I</td>
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<tr>
<td>PHYS 4403</td>
<td>Advanced Modern Physics I</td>
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<tr>
<td>PHYS 4416</td>
<td>Radiation Detection and Measurement</td>
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<tr>
<td>or PHYS 4414</td>
<td>Electronic Instrumentation and Measurement</td>
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<tr>
<td>PHYS 4421</td>
<td>Electricity and Magnetism I</td>
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<td>and Electricity and Magnetism II</td>
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<tr>
<td>PHYS 4483</td>
<td>Theoretical Mechanics</td>
<td>4</td>
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<td>PHYS 4492</td>
<td>Colloquium in Physics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Plus 8 additional 4000-level PHYS credits</td>
<td>8</td>
</tr>
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</table>

**Physics Minor**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2275</td>
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<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>8</td>
</tr>
<tr>
<td>&amp; PHYS 2212</td>
<td>and Engineering Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYS 3301</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4403</td>
<td>Advanced Modern Physics I</td>
<td>3</td>
</tr>
</tbody>
</table>

**In Addition:**

- Physics electives approved by the department: 4

**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 1101. 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. 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: 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. 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. 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. 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. 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 3325 Introduction to Weather and Climate: 3 semester hours.
Introduces the principles that govern weather and climate, including movements of air masses, genesis of storms, creation of frontal systems. Provides insight into forecasting techniques and the effects of weather and climate on people and societies. PREREQ: CHEM 1112, CHEM 1112L, PHYS 1112 or permission of instructor. F, S, Su

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: PHYS 3301. AS

PHYS 4409 Introductory Nuclear Physics: 3 semester hours.
A course in Nuclear Physics with emphasis upon structural models, radioactivity, nuclear reactions, fission and fusion. PREREQ: Knowledge of elementary quantum mechanics and differential equations or permission of instructor. D

PHYS 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. Equivalent to GEOL 4410. PREREQ: Junior standing and permission of instructor. AF

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 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 4492E Colloquium in Physics Lab: 0 semester hours.
**PHYS 4497 Workshop: 1-2 semester hour.**  
Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

**PHYS 4499 Experimental Course: 1-6 semester hour.**  
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times.
College of Technology

Faculty

Dean
Scott Rasmussen

Associate Dean
Debra Ronneburg

The College of Technology is the largest post-secondary technical institution in Idaho. The College provides high quality professional-technical 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 professional-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, baccalaureate, and graduate degree programs; adult basic education; and workforce training and development.

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

1. A student seeking credit for prior training, education, or work experience must complete a petition (initiated through the Student Services Office) and receive official approval. Performance objectives established for specific program courses must be met. The assessment procedure includes providing written documentation of training and experience, completing written examinations and demonstrations of skills, or submitting to interviews with program faculty.

2. If the petition is approved, and once the student has successfully completed one semester of coursework, the course(s) for which the student is granted credit for prior training, education, or work experience will be noted on the transcript. “Successful completion” is defined as receiving a minimum cumulative 2.0 GPA without any F grades.

3. A recording fee will be required upon approval of the petition.

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 credits
2. Oral Communication (COMM 1101) 3 credits
3. Mathematical Ways of Knowing (any Objective 3 (p. 47) course)
4. Social and Behavioral Ways of Knowing (any Objective 6 (p. 47) course).
5. Three (3) credit hours towards any unfulfilled Objective (p. 47).*

* TGE 1257 is recommended. See specific program requirements.

This language follows Idaho State Board of Education changes made to General Education policies and procedures effective April 2014. Please visit the link below for more information.


Progression

Progression into succeeding courses of study will require successful completion (passing grades) of any courses listed as prerequisites for those desired courses.

Change of Program

To change programs within the College, a currently enrolled student must see a counselor 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. 58) section of the Undergraduate catalog for a complete description of Idaho State University’s Scholastic Probation and Dismissal Policy.

Application for Graduation

Students planning to graduate should apply for graduation no later than one semester before all requirements are completed. Students should apply for graduation through Bengal Web (https://bengalweb.isu.edu/cp/home/displaylogin) or contact the Student Services Office to obtain applications for graduation and pay the $20 graduation/diploma fee. Additional and optional graduation applications may be completed for a fee of $10 each.

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 are at least 18 months in length and follow specific approved curricula. 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 http://www.isu.edu/ctech/studentservices/degrees-certificates.shtml#bat.

Bachelor of Science with a Major in Health Science
The objective of the Bachelor of Science with a major in Health Science 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. The BSHS is administered through the Student Services Office in the College of Technology. See http://www.isu.edu/ctech/bs-health/index.shtml.

Regular Preparatory Programs
Each of the college’s preparatory programs consists of a series of courses designed to teach the necessary skills and knowledge of a specific occupational field. Program length may vary depending on student’s academic qualifications at time of acceptance. One semester consists of sixteen weeks of instruction. Programs operate on the average of six hours each weekday.

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 apply.isu.edu and pay fees online. Be sure to click on the College of Technology Application and select your program choice. If you are applying for the Associate Degree Registered Nurse program, the Respiratory Therapy program or any bachelor’s degree offered through the College of Technology, go instead to the appropriate 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. Submit an official college transcript from each accredited institution of higher education that you have attended.
4. Submit either COMPASS or ACT/SAT scores.*
   a. Complete the COMPASS placement test. This test enables us to place you in the appropriate classes to enhance your success in college; OR
   b. Submit ACT/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 professional/technical standards were established by the Idaho State Board of Education and implemented in April 2003:

Professional-Technical Admission Standards
Standards for high school graduates of 1997 and after must meet the following conditions for Regular Admission:

1. Graduate from high school with a 2.0 GPA.
2. Complete a placement examination (ACT, SAT, COMPASS). 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

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>English: Composition, Literature, Applied English in the Workplace</td>
</tr>
<tr>
<td>Other: Professional-technical courses including Tech Prep sequences and organized work-based learning experiences connected to the school-based curriculum are strongly recommended.</td>
</tr>
</tbody>
</table>

### High School Credits

| 4 cr* |
| 4 cr* |
| 8 cr |

* 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, SAT, COMPASS). Scores will be used to determine placement eligibility for specific programs.

### Professional-Technical 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, SAT, COMPASS). 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.
Advanced Automation and Manufacturing Technology

Faculty
Coordinator and Instructor
(vacant)

(1 to 2 Years)

One Intermediate Technical Certificate, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

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.

Intermediate Technical Certificate: Advanced Automation and Manufacturing

(1 Year)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMT 0101</td>
<td>Introduction to Machining</td>
<td>3</td>
</tr>
<tr>
<td>ADMT 0102</td>
<td>Electronics Orientation</td>
<td>3</td>
</tr>
<tr>
<td>ADMT 0103</td>
<td>Introduction to Advanced Manufacturing Welding</td>
<td>3</td>
</tr>
<tr>
<td>ADMT/ESET 0162</td>
<td>Industrial Health and Safety</td>
<td>2</td>
</tr>
<tr>
<td>ADMT/INST 0220</td>
<td>Introduction to Programmable Logic Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ADMT/MACH 0221</td>
<td>CAD and CAM I Theory</td>
<td>3</td>
</tr>
<tr>
<td>ADMT/ESET 0242</td>
<td>Process Measures for Mechanical Engineering</td>
<td>2</td>
</tr>
<tr>
<td>ADMT/ESET 0243</td>
<td>Fluid and Pneumatic Power</td>
<td>2</td>
</tr>
<tr>
<td>ADMT/ESET 0243L</td>
<td>Fluid and Pneumatic Power Lab</td>
<td>2</td>
</tr>
<tr>
<td>ADMT 0244</td>
<td>Advanced Manufacturing Welding Processes II</td>
<td>3</td>
</tr>
<tr>
<td>ADMT 0245</td>
<td>Lean and Six Sigma</td>
<td>3</td>
</tr>
<tr>
<td>ADMT/ESET 0246</td>
<td>Materials and Metallurgy</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours 31

Associate of Applied Science: Advanced Automation and Manufacturing

(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
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<td>Process Measures for Mechanical Engineering</td>
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</tr>
<tr>
<td>ADMT/ESET 0243</td>
<td>Fluid and Pneumatic Power</td>
<td>2</td>
</tr>
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<td>ADMT/ESET 0243L</td>
<td>Fluid and Pneumatic Power Lab</td>
<td>2</td>
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<tr>
<td>ADMT 0244</td>
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<td>3</td>
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<td>ADMT 0245</td>
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<td>3</td>
</tr>
<tr>
<td>ADMT/ESET 0246</td>
<td>Materials and Metallurgy</td>
<td>2</td>
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<tr>
<td>GEN ED</td>
<td>General Education courses</td>
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Total Hours for the AAS: 61 or 62

Select one of the following options:

**Option 1: Electrical and Instrumentation Specialization**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ESET 0122</td>
<td>Electrical Systems and Motor Control Theory</td>
<td>2</td>
</tr>
<tr>
<td>ESET 0122L</td>
<td>Electrical Systems and Motor Control Theory</td>
<td>1</td>
</tr>
<tr>
<td>ESET 0222</td>
<td>Process Control Theory</td>
<td>3</td>
</tr>
<tr>
<td>ESET 0226</td>
<td>Process Control Devices Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ESET 0231</td>
<td>Microcontrollers</td>
<td>2</td>
</tr>
<tr>
<td>ESET 0231L</td>
<td>Microcontrollers Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ESET 0233</td>
<td>Electrical Power Systems</td>
<td>3</td>
</tr>
<tr>
<td>ESET 0233L</td>
<td>Electrical Power Systems Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option 2: Welding Specialization**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WELD 0142</td>
<td>Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>WELD 0232</td>
<td>Welding Practice IV</td>
<td>13</td>
</tr>
</tbody>
</table>

1. See General Education Requirements (p. 372) (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.
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 Process Measures for Mechanical Engineering: 2 semester hours.
Principles of temperature, pressure, strain, flow, force, and vibration measurements. Techniques of computerized data acquisition and reduction. Lecture plus laboratory work in selected topics. 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 Technology

Faculty
Instructors
Roberts
Evans

(1 to 2 Years)

One Intermediate Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree and one Bachelor of Applied Science degree are available.

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 http://www.isu.edu/ctech/aircraftmaintenance/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Intermediate Technical Certificate: Airframe
(1 Year)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AIRM 0101</td>
<td>Mathematics</td>
<td>3</td>
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<tr>
<td>AIRM 0102</td>
<td>Aircraft Drawing</td>
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</tr>
<tr>
<td>AIRM 0103</td>
<td>Truss Structures</td>
<td>3</td>
</tr>
<tr>
<td>AIRM 0104</td>
<td>Materials and Processes</td>
<td>7</td>
</tr>
<tr>
<td>AIRM 0105</td>
<td>Sheetmetal Structures</td>
<td>6</td>
</tr>
<tr>
<td>AIRM 0107</td>
<td>Forms and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>AIRM 0108</td>
<td>Basic Electricity</td>
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</tr>
<tr>
<td>AIRM 0109</td>
<td>Fluid Systems</td>
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<tr>
<td>AIRM 0110</td>
<td>Landing Gear Systems</td>
<td>4</td>
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<tr>
<td>AIRM 0111</td>
<td>Utility Systems</td>
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<tr>
<td>AIRM 0112</td>
<td>Electrical Systems</td>
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<tr>
<td>AIRM 0120</td>
<td>Structural Welding</td>
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</tbody>
</table>

Total Hours: 45

Advanced Technical Certificate: Power Plant
(2 Years)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 0101</td>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>AIRM 0102</td>
<td>Aircraft Drawing</td>
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</tr>
<tr>
<td>AIRM 0103</td>
<td>Truss Structures</td>
<td>3</td>
</tr>
<tr>
<td>AIRM 0104</td>
<td>Materials and Processes</td>
<td>7</td>
</tr>
<tr>
<td>AIRM 0105</td>
<td>Sheetmetal Structures</td>
<td>6</td>
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<tr>
<td>AIRM 0107</td>
<td>Forms and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>AIRM 0108</td>
<td>Basic Electricity</td>
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<tr>
<td>AIRM 0109</td>
<td>Fluid Systems</td>
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<td>AIRM 0110</td>
<td>Landing Gear Systems</td>
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</tr>
<tr>
<td>AIRM 0111</td>
<td>Utility Systems</td>
<td>3</td>
</tr>
<tr>
<td>AIRM 0112</td>
<td>Electrical Systems</td>
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<tr>
<td>AIRM 0221</td>
<td>Basic Reciprocating Engines</td>
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<tr>
<td>AIRM 0222</td>
<td>Advanced Reciprocating Engines</td>
<td>2</td>
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<tr>
<td>AIRM 0223</td>
<td>Basic Turbine Engines</td>
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<tr>
<td>AIRM 0224</td>
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Total Hours: 75

Associate of Applied Science Degree: Airframe and Powerplant
(2 Years)

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General Education courses

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Total Hours: 75

General Education courses

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Total Hours: 90

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.
Courses

AIRM 0101 Mathematics: 3 semester hours.
Mathematical theory pertaining to gear ratios, areas, power formulas, bend allowances, and weight and balances on aircraft. F

AIRM 0102 Aircraft Drawing: 1 semester hour.
Theory and lab practice in making, reading, and using drawings and blueprints on aircraft. S

AIRM 0103 Truss Structures: 3 semester hours.
Theory and lab practice in gas welding; rebuilding and repairing wooden structures, and fabric repair and recovering techniques. F

AIRM 0104 Materials and Processes: 7 semester hours.
Theory and lab practice covering aircraft; ground operation; assembly and rigging; hardware; care, properties, and uses of various materials; aircraft finishes and the various methods of finish application. F

AIRM 0105 Sheetmetal Structures: 6 semester hours.
Theory and lab practice in maintenance and repair of metal aircraft. S

AIRM 0107 Forms and Regulations: 3 semester hours.
Theory and lab practice in interpretation and use of the various forms and regulations pertaining to aircraft maintenance. F

AIRM 0108 Basic Electricity: 3 semester hours.
Theory and lab practice in principles and uses of electricity in the various circuits and controls of the aircraft. S

AIRM 0109 Fluid Systems: 5 semester hours.
The students will learn how to identify the different fluids that are used in the hydraulic systems and the care and precautions that are necessary for the safe handling of these fluids. The students will be instructed in the operation of systems and be able to troubleshoot the systems. S

AIRM 0110 Landing Gear Systems: 4 semester hours.
Theory and lab practice in operation, maintenance, and repair of landing gear systems of the aircraft. S

AIRM 0111 Utility Systems: 3 semester hours.
Theory and lab practice in operation, maintenance, and repair of utility systems such as position and warning, aircraft instruments, climate controls, communication and navigation, ice and fire protection, and miscellaneous systems. Su

AIRM 0112 Electrical Systems: 5 semester hours.
Theory and lab practice in operation, maintenance, and repair of electrical systems in aircraft. Su

AIRM 0120 Structural Welding: 2 semester hours.
Theory and lab practice in gas welding of aircraft structural components. F

AIRM 0221 Basic Reciprocating Engines: 3 semester hours.
Design, construction, and operation of radial, opposed, and in-line engines; disassembly, assembly, and run-up of various types of engines. F

AIRM 0222 Advanced Reciprocating Engines: 2 semester hours.
Repair and overhaul of reciprocating engines, installation and test. F

AIRM 0223 Basic Turbine Engines: 3 semester hours.
Design, construction, and operation of gas turbine and turbo-prop engines. S

AIRM 0224 Advanced Turbine Engines: 2 semester hours.
Repair and overhaul of turbine engines. S

AIRM 0225 Engine Lubrication Systems: 2 semester hours.
Design and operation of oil system; its repair and installation. S

AIRM 0226 Induction and Exhaust Systems: 2 semester hours.
Design and operation of air intake, exhaust on reciprocating and jet engines. F

AIRM 0227 Engine Fuel Systems: 3 semester hours.
Design and operation of carburetor, fuel injection, and hydromechanical fuel systems on reciprocating and jet engines. F

AIRM 0228 Ignition and Cooling Systems: 5 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 Engine Propellers: 4 semester hours.
Design, operation, overhaul, and installation of propellers and components. S

AIRM 0296 Independent Study: 1-8 semester hour.
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 hour.
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
## Associate Degree Registered Nurse Program

### Faculty
**Director/Assistant Professor**  
Pearce

**Assistant Professor**  
Kubiak

**Instructor**  
Brumfield

One Associate of Science degree, one Bachelor of Applied Technology degree (see description in the General Information (p. 372) section), and one Bachelor of Science in Health Science degree (see description under the Health Occupations Department (p. 421)) are available in the College of Technology. Articulation into B.S. and M.S. programs in Nursing in the Division of Health Sciences (p. 289) is available for graduates.

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**.

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 (NDT 3340 preferred); BIOL 2221 and BIOL 2221L or equivalent, 3 credits from Objective 3 (MATH 1153 preferred); COMM 1101; and BIOL 3301, BIOL 3301L, 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 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 http://www.isu.edu/ctech/registerednurse/index.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

### Associate of Science Degree: 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. 47) described in the Academic Information section of this catalog.) Listed below are program requirements, some of which will also satisfy General Education Objectives.

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<td>&amp; 2221L</td>
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<td>Anatomy and Physiology</td>
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<td>COMM 1101</td>
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<td>Critical Reading and Writing</td>
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<td>Nutrition for Health Professionals</td>
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<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
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<td>Objective 5 (minimum of 7 cr)</td>
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<td>Objective 7 or 8</td>
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<td>Objective 9 (minimum of 3 cr)</td>
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#### Program-Specific Courses

| ADRN 1105 | Nursing Applications | 1 |
| ADRN 2210 | Nursing Transition | 2 |
ADRN 2211 Mental Health Nursing 3
ADRN 2212 Clinical Foundations of Nursing III 2
ADRN 2220 Health Assessment 3
& 2220L and Health Assessment Lab
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 Hours 80

1 Contributes to General Education requirement.
2 Objective 5 depends upon Microbiology and NTD course choices. See ADRN advisor for options. BIOL 1101 and BIOL 1101L are required prereqs for BIOL courses listed above.

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.

Suggested Course Sequence

Prior to program acceptance:

Options exist for transfer credit or testing. Please consult with Student Services at (208) 282-2622.

First Year

<table>
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<td>BIOL 3301</td>
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<td>BIOL 3301L</td>
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<td>ADRN 1105</td>
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Total Hours: 34

1 Or BIOL 2235 and BIOL 2235L.
2 Contributes to a General Education requirement.

After acceptance into program:

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Second Year

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<td>Two Objective Courses</td>
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<td>Objective Course</td>
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</table>

Total Hours: 36

Courses

ADRN 1105 Nursing Applications: 1 semester hour.
Hands-on experience in nursing-related applications that prepare candidates for distance-based nursing education. PREREQ: Conditional admission (or alternate) to program. S

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. PREREQ: ADRN 1105 and 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 hour.
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 hour.
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
# Automotive Collision Repair and Refinishing

**Faculty**

Coordinator/Master Instructor
Butler

Master Instructor
Beamis

(1 to 2 Years)

Two Intermediate Technical Certificates, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Technology degree are available.

## 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 http://www.isu.edu/ctech/automotivecollision/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

### Intermediate Technical Certificate: Automotive Collision Repair

(1.5 Years)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRR 0146</td>
<td>Introduction to Automotive Collision Repair and</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Refinishing</td>
<td></td>
</tr>
<tr>
<td>ACRR 0147</td>
<td>Minor Collision Repair and Refinishing</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0210</td>
<td>Advanced Collision Repair I</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0211</td>
<td>Advanced Collision Repair II</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0212</td>
<td>Advanced Collision Repair III</td>
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<tr>
<td>Total Hours</td>
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### Intermediate Technical Certificate: Automotive Refinishing

(1.5 Years)

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>ACRR 0146</td>
<td>Introduction to Automotive Collision Repair and</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Refinishing</td>
<td></td>
</tr>
<tr>
<td>ACRR 0147</td>
<td>Minor Collision Repair and Refinishing</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0160</td>
<td>Advanced Refinishing I</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0161</td>
<td>Advanced Refinishing II</td>
<td>8</td>
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<tr>
<td>ACRR 0162</td>
<td>Advanced Refinishing III</td>
<td>8</td>
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<tr>
<td>or ACRR 0252</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
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<td>Advanced Collision Repair I</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0211</td>
<td>Advanced Collision Repair II</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0212</td>
<td>Advanced Collision Repair III</td>
<td>8</td>
</tr>
<tr>
<td>or ACRR 0252</td>
<td>Internship</td>
<td></td>
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<tr>
<td>General Education courses</td>
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<td>3</td>
</tr>
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</table>

### Associate of Applied Science Degree: Automotive Collision Repair and Refinishing

(2 Years)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRR 0146</td>
<td>Introduction to Automotive Collision Repair and</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Refinishing</td>
<td></td>
</tr>
<tr>
<td>ACRR 0147</td>
<td>Minor Collision Repair and Refinishing</td>
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<tr>
<td>ACRR 0161</td>
<td>Advanced Refinishing II</td>
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<tr>
<td>ACRR 0162</td>
<td>Advanced Refinishing III</td>
<td>8</td>
</tr>
<tr>
<td>or ACRR 0252</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>ACRR 0210</td>
<td>Advanced Collision Repair I</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0211</td>
<td>Advanced Collision Repair II</td>
<td>8</td>
</tr>
<tr>
<td>ACRR 0212</td>
<td>Advanced Collision Repair III</td>
<td>8</td>
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<tr>
<td>or ACRR 0252</td>
<td>Internship</td>
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<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
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<tr>
<td>Additional General Education courses</td>
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<td>12</td>
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Total Hours: 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.

## Courses

**ACCR 0146 Introduction to Automotive Collision Repair and Refinishing:** 8 semester hours.

Theory and practice to use and care for body tools, fasteners; operation of oxyacetylene and M.I.G. welding equipment including brazing and cutting. Fundamentals of basic metal finishing including the use of plastic filler. Safety rules and procedures will be emphasized. "Right to know" laws, OSHA, and hazardous material are stressed. PREREQ: Must have tools required or ordered within one week of beginning of class. F, S
ACRR 0147 Minor Collision Repair and Refinishing: 8 semester hours.
Metal finishing with fillers is continued. Refinishing fundamentals are taught and practiced, including prepping vehicles for refinishing from washing the vehicle to the final top color or clear coat. Projects will be both components and customer vehicles. Systems application is taught. PREREQ: ACRR 0146. 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 0146, and ACRR 0147 or Tech Prep articulation. 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: ACRR 0161 and ACRR 0211. F, S

ACRR 0296 Independent Study: 1-8 semester hour.
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 hour.
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 Technology

Faculty
Coordinator/Instructor
Gunter
Instructor
Smith
Worthington

(1.5 to 2 Years)

One Intermediate Technical Certificate option, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

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.

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://isu.edu/autotech/.

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.

Intermediate Technical Certificate: Automotive Technology
(1.5 Years)

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>AUTM 0100A</td>
<td>Introduction to Automotive Technology</td>
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</tr>
<tr>
<td>AUTM 0101</td>
<td>Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0102</td>
<td>Automotive Electrical I</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0103</td>
<td>Engine Performance</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0104</td>
<td>Automotive Electrical II</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0105</td>
<td>Steering/Suspension</td>
<td>4</td>
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<tr>
<td>AUTM 0106</td>
<td>Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0107</td>
<td>Manual Drivetrains and Axles</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0108</td>
<td>Automatic Transmissions/Transaxles</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0109</td>
<td>Live Work</td>
<td>8</td>
</tr>
<tr>
<td>AUTM 0201</td>
<td>Advanced Electrical Systems</td>
<td>8</td>
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</table>

General Education courses

<table>
<thead>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
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<td>COMM 1101</td>
<td>Principles of Speech</td>
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</table>

Additional General Education courses: 12

Total Hours: 48

Associate of Applied Science Degree: Automotive Technology
(2 Years)

Required Courses:

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<tr>
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<tbody>
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<tr>
<td>AUTM 0101</td>
<td>Engine Repair</td>
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</tr>
<tr>
<td>AUTM 0102</td>
<td>Automotive Electrical I</td>
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</tr>
<tr>
<td>AUTM 0103</td>
<td>Engine Performance</td>
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<td>AUTM 0104</td>
<td>Automotive Electrical II</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0105</td>
<td>Steering/Suspension</td>
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<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AUTM 0106</td>
<td>Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0107</td>
<td>Manual Drivetrains and Axles</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0108</td>
<td>Automatic Transmissions/Transaxles</td>
<td>4</td>
</tr>
<tr>
<td>AUTM 0109</td>
<td>Live Work</td>
<td>8</td>
</tr>
<tr>
<td>AUTM 0201</td>
<td>Advanced Electrical Systems</td>
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</table>

General Education courses

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<tbody>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional General Education courses: 12

Total Hours: 71

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.

Courses

AUTM 0100A Introduction to Automotive Technology: 8 semester hours.
An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic automotive maintenance. F, S

AUTM 0101 Engine Repair: 4 semester hours.
Theory, construction, inspection, diagnosis, and repair of 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 completion, students 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. COREQ: AUTM 0102. F, S

AUTM 0102 Automotive Electrical I: 4 semester hours.
Electronic theory, wiring diagrams, test equipment, diagnosis, repair, replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Upon completion, students will be able to properly use wiring diagrams to diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0101. F, S

AUTM 0103 Engine Performance: 4 semester hours.
Theory of operation, and basic diagnostic process used to locate engine performance concerns and to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and emission control devices. Upon completion, students will be able to describe operation and diagnose/repair basic ignition, fuel and emission-related drivability problems using appropriate test equipment/service information in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0104. F, S

AUTM 0104 Automotive Electrical II: 4 semester hours.
Networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting using labscopes and other diagnostic equipment. Upon completion, students will be able to properly use diagnostic equipment to properly diagnose, test, and repair electronic concerns in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0103. F, S
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 0106 F, 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, hydromechanical, 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 0105. F, 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 0108. F, S

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 0107. F, S

AUTM 0109 Live Work: 8 semester hours.

AUTM 0198 Special Topics: 1-8 semester hour.
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. Su

AUTM 0296 Independent Study: 1-8 semester hour.
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 hour.
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
Business Technology

Faculty
Coordinator/Senior Instructor
Warren

Master Instructors
Campbell
D. Larson

(1 to 2 Years)

Two Basic Technical Certificates, two Intermediate Technical Certificates, three Associate of Applied Science degrees, and a Bachelor of Applied Technology degree are available.

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/business_information/

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.


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 courses. If a "C-" or better is not achieved in a required class, the student may repeat the class only one time. A minimum cumulative GPA of 2.0 is required for graduation.

Basic Technical Certificate: Business Technology

(1 Year)

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BT 0112</td>
<td>Voice Recognition</td>
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<tr>
<td>BT 0121</td>
<td>Digital Input and Transcription</td>
<td>3</td>
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</tbody>
</table>

Basic Technical Certificate: Small Business Technology

(1 Year)

Required Courses:

<table>
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<tr>
<th>Course</th>
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<th>Hours</th>
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<tr>
<td>BT 0119</td>
<td>Business Communications II</td>
<td>3</td>
</tr>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BT 0171</td>
<td>Computerized Accounting</td>
<td>3</td>
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<tr>
<td>BT 0173</td>
<td>Spreadsheets</td>
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<td>BT 0220</td>
<td>Introduction to Entrepreneurship</td>
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<tr>
<td>BT 0230</td>
<td>Marketing and Managing a Small Business</td>
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Total Hours 18

Intermediate Technical Certificate: Accounting Technology

(1.5 Years)

Required Courses:

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<tr>
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<tr>
<td>BT 0118</td>
<td>Business Communications I</td>
<td>3</td>
</tr>
<tr>
<td>BT 0119</td>
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</tr>
<tr>
<td>BT 0120</td>
<td>Concepts of Accounting</td>
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</tr>
<tr>
<td>BT 0123</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BT 0144</td>
<td>Document Processing</td>
<td>3</td>
</tr>
<tr>
<td>BT 0147</td>
<td>Accounting Applications</td>
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</tr>
<tr>
<td>BT 0148</td>
<td>Payroll Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BT 0154</td>
<td>Administrative Management</td>
<td>3</td>
</tr>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BT 0171</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BT 0173</td>
<td>Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>BT 0174</td>
<td>Records and Database Management</td>
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</tbody>
</table>

Total Hours 37

Intermediate Technical Certificate: Administrative Technology

(1.5 Years)

Required Courses:
### Associate of Applied Science Degree: Accounting Technology

#### Required Courses:

<table>
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<th>Course Code</th>
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<td>BT 0115</td>
<td>Practicum</td>
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<tr>
<td>BT 0118</td>
<td>Business Communications I</td>
<td>3</td>
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<tr>
<td>BT 0119</td>
<td>Business Communications II</td>
<td>3</td>
</tr>
<tr>
<td>BT 0120</td>
<td>Concepts of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BT 0123</td>
<td>Business Mathematics</td>
<td>3</td>
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<tr>
<td>BT 0144</td>
<td>Document Processing</td>
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<tr>
<td>BT 0145</td>
<td>Integrated Computer Applications</td>
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<tr>
<td>BT 0154</td>
<td>Administrative Management</td>
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<td>BT 0170</td>
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<td>BT 0171</td>
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</table>

**Total Hours:** 40

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 Degree: Administrative Management Technology

#### (2 Years)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT 0112</td>
<td>Voice Recognition</td>
<td>1</td>
</tr>
<tr>
<td>BT 0115</td>
<td>Practicum</td>
<td>2</td>
</tr>
<tr>
<td>BT 0118</td>
<td>Business Communications I</td>
<td>3</td>
</tr>
<tr>
<td>BT 0119</td>
<td>Business Communications II</td>
<td>3</td>
</tr>
<tr>
<td>BT 0120</td>
<td>Concepts of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BT 0121</td>
<td>Digital Input and Transcription</td>
<td>3</td>
</tr>
<tr>
<td>BT 0123</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BT 0144</td>
<td>Document Processing</td>
<td>3</td>
</tr>
<tr>
<td>BT 0145</td>
<td>Integrated Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>BT 0147</td>
<td>Administrative Management</td>
<td>3</td>
</tr>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BT 0171</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BT 0172</td>
<td>Digital Publishing</td>
<td>3</td>
</tr>
<tr>
<td>BT 0173</td>
<td>Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>BT 0174</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2201</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1108</td>
<td>Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2261</td>
<td>Legal Environment of Organizations</td>
<td>3</td>
</tr>
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**General Education courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Additional General Education courses:** 9

**Total Hours:** 60

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 Degree: Small Business Technology

#### (Technical Certificate plus 1 Year)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT 0119</td>
<td>Business Communications II</td>
<td>3</td>
</tr>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BT 0171</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BT 0173</td>
<td>Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>BT 0220</td>
<td>Introduction to Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>BT 0230</td>
<td>Marketing and Managing a Small Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education Requirements for the AAS:** 15

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.
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 0112 Voice Recognition: 1 semester hour.**
Introduction to use of voice recognition technology. D

**BT 0115 Practicum: 1-3 semester hour.**
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 0118 Business Communications I: 3 semester hours.**
Develops and reinforces skills in grammar, sentence structure, spelling, word usage, vocabulary, and punctuation. Emphasis on discussions of workplace communication and short compositions for use in the business environment. F, S

**BT 0119 Business Communications II: 3 semester hours.**
Provides communication skills necessary to speak and write clearly in business environment. Focus on proofreading, editing, composition, oral and listening communications, basic research, and employment methods. PREREQ: BT 0118 with a grade of C- or better. F, S

**BT 0120 Concepts of Accounting: 3 semester hours.**
Course in the basics of accounting and the accounting cycle. Includes exercises in journalizing, posting, closing procedures, and financial statement generation. 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 Business Mathematics: 3 semester hours.**
Review of basic mathematics with emphasis on application problems in common business situations. 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 Document Processing: 3 semester hours.**
Builds word processing competencies. Emphasis on learning word processing functions, developing basic formatting skills, and producing mailable letters, memos, reports, and tables. PREREQ: 24 nwpm. 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 Introduction to Computers: 3 semester hours.**
This course will teach concepts, skills, and terminology required to process digital information in today's business world. Research, verification, creation, and integration of business documents, reports, and presentations will be completed using Internet resources and current business software. F, S, Su

**BT 0171 Computerized Accounting: 3 semester hours.**
This course is designed to offer the student the opportunity to experience hands-on computer 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 0199 Experimental Course: 3 semester hours.**
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times

**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 hour.**
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 hour.**
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 hour.**
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Civil Engineering Technology

Faculty
Coordinator/Instructor
Leavitt

Instructor
Schiess

(1 to 2 Years)

One Basic Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available to the student.

Objectives
Graduates of the Civil Engineering Technology program will:

1. Obtain gainful employment as professional Surveying Technicians, Drafters, Laboratory Technicians, or Field Testing Technicians in a Civil Engineering-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 tasks in the laboratory and in the field of various construction materials and operations to evaluate compliance with project plans and specifications.

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/civil-engineering/book-tool.shtml

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.

(1 Year)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 0115</td>
<td>Materials Testing and Specifications I</td>
<td>2</td>
</tr>
<tr>
<td>CET 0125</td>
<td>Materials Testing and Specifications II</td>
<td>2</td>
</tr>
<tr>
<td>CET 0215</td>
<td>Materials Testing and Specifications III</td>
<td>3</td>
</tr>
<tr>
<td>CET 0225</td>
<td>Materials Testing and Specifications IV</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>10</td>
</tr>
</tbody>
</table>

Advanced Technical Certificate: Civil Engineering Technician
(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 0110</td>
<td>Applied Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td>CET 0111/GMET 1111</td>
<td>Drawing with CAD</td>
<td>3</td>
</tr>
<tr>
<td>CET 0112/GMET 1112</td>
<td>Beginning Survey</td>
<td>5</td>
</tr>
<tr>
<td>CET 0115</td>
<td>Materials Testing and Specifications I</td>
<td>2</td>
</tr>
<tr>
<td>CET 0120</td>
<td>Applied Mathematics II</td>
<td>4</td>
</tr>
<tr>
<td>CET 0121/GMET 1121</td>
<td>Civil Engineering Technology Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CET 0122/GMET 1122</td>
<td>Intermediate Surveying</td>
<td>5</td>
</tr>
<tr>
<td>CET 0125</td>
<td>Materials Testing and Specifications II</td>
<td>2</td>
</tr>
<tr>
<td>CET 0215</td>
<td>Materials Testing and Specifications III</td>
<td>3</td>
</tr>
<tr>
<td>CET 0216/GMET 2216</td>
<td>Route Survey and Design</td>
<td>6</td>
</tr>
<tr>
<td>CET 0217</td>
<td>State Plane Coordinates</td>
<td>4</td>
</tr>
<tr>
<td>CET 0225</td>
<td>Materials Testing and Specifications IV</td>
<td>3</td>
</tr>
<tr>
<td>CET 0226/GMET 2226</td>
<td>Construction Surveying</td>
<td>6</td>
</tr>
<tr>
<td>CET 0227</td>
<td>Land Surveying Practices</td>
<td>4</td>
</tr>
<tr>
<td>CET 0228</td>
<td>Principles of GIS</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
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<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1101P</td>
<td>English Composition Plus</td>
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</tbody>
</table>

| Total Hours | 63 |

1. Contributes to a General Education requirement.

Associate of Applied Science Degree: Civil Engineering Technology
(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>CET 0110</td>
<td>Applied Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td>CET 0111/GMET 1111</td>
<td>Drawing with CAD</td>
<td>3</td>
</tr>
<tr>
<td>CET 0112/GMET 1112</td>
<td>Beginning Survey</td>
<td>5</td>
</tr>
<tr>
<td>CET 0115</td>
<td>Materials Testing and Specifications I</td>
<td>2</td>
</tr>
<tr>
<td>CET 0120</td>
<td>Applied Mathematics II</td>
<td>4</td>
</tr>
<tr>
<td>CET 0121/GMET 1121</td>
<td>Civil Engineering Technology Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CET 0122/GMET 1122</td>
<td>Intermediate Surveying</td>
<td>5</td>
</tr>
<tr>
<td>CET 0125</td>
<td>Materials Testing and Specifications II</td>
<td>2</td>
</tr>
</tbody>
</table>

| Total Hours | 63 |
CET 0211 Utility Design and Construction 3
CET 0215 Materials Testing and Specifications III 3
CET 0216/GEMT Route Survey and Design 2216 6
CET 0217 State Plane Coordinates 4
CET 0225 Materials Testing and Specifications IV 3
CET 0226/GEMT Construction Surveying 2226 6
CET 0227 Land Surveying Practices 4
CET 0228 Principles of GIS 3

General Education courses 1
COMM 1101 Principles of Speech 2 3
PHYS 1101 Elements of Physics & 1101L and Elements of Physics Laboratory 2 4

Additional General Education courses 9
Total Hours 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.

Courses

CET 0110 Applied Mathematics I: 4 semester hours.
Review of numerical computations, 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: 5 semester hours.
Introduction to surveying. Theory and field work using equipment in the areas of measuring (taping, chaining, using hand levels), leveling (differential and profile), theodolites and total stations. Field projects include alignment stakeout, profile leveling, closed traverse, and an introduction to survey coordinate geometry applications. Equivalent to GEMT 1112. F

CET 0115 Materials Testing and Specifications I: 2 semester hours.
Use of materials testing equipment to conduct test procedures and to verify specifications for soils and aggregates used in construction. Prepares student for Western Alliance for Quality Transportation Construction aggregate qualifications examination. F

CET 0120 Applied Mathematics II: 4 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; systems of linear equations; ratio, proportion, and variation, 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 drawings, 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/GEMT 1111. S

CET 0122 Intermediate Surveying: 5 semester hours.
Study survey of land, traverses and closures, bearings, coordinates, construction surveying and staking. Control for surveys, topography surveying and mapping using calculators and coordinate geometry (COGO) to solve surveying problems. Introduction to data collection. Produce survey drawings with TDS COGO. Equivalent to GEMT 1122. PREREQ: CET 0112. S

CET 0125 Materials Testing and Specifications II: 2 semester hours.
Concrete testing procedures are conducted and concrete specifications are verified. Prepares student for WAQTC concrete qualifications examination. PREREQ: CET 0115. S

CET 0121 Utility Design and Construction: 3 semester hours.
Basic study of water and wastewater distribution systems. Includes capacity analysis, pressure pipe analysis and gravity flow in pipe. Studies design and construction criteria for public utility systems. Include simple project design calculations and drafting using engineering software. PREREQ: CET 0120. COREQ: CET 0212. F

CET 0126 Route Survey and Design: 6 semester hours.
Study of route surveying; circular, spiral, and parabolic curves as applied to highway design; route locations, plan, and specifications. Plans will be drawn with plotters using CAD and survey/engineering software. Equivalent to GEMT 2216. PREREQ: CET 0125/GEMT 1122. F

CET 0127 State Plane Coordinates: 4 semester hours.
Study of state plane coordinate system, resections, and radial surveying. Understanding USGS quad maps, magnetic declination, and map projections as they relate to the state plane coordinate system; basic GPS theory and operation in surveying practices. PREREQ: CET 0122/GEMT 1122. F

CET 0225 Materials Testing and Specifications IV: 3 semester hours.
Asphalt testing procedures and asphalt specifications verification. Roadway or subdivision civil engineering project plans are studied. Field trips to test asphalt density at construction paving project sites. Prepares students for WAQTC asphalt qualifications examinations. PREREQ: CET 0215. S

CET 0226 Construction Surveying: 6 semester hours.
Intermediate GPS theory and operation in construction surveying. Construction staking procedures and use of data collection roads software. Equivalent to GEMT 2226. PREREQ: CET 0216/GEMT 2216. S

CET 0227 Land Surveying Practices: 4 semester hours.
Advanced study of surveying topics including the Public Lands Survey System, land divisions, property descriptions, records of survey, and corner perpetuation and filing records. PREREQ: CET 0217/GEMT 2217. 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 0296 Independent Study: 1-8 semester hour.
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 hour.
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.

CET 0299 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Computer Aided Design Drafting Technology

Faculty
Coordinator/Advanced Instructor
Churba

Instructor
Adams

(1 to 2 Years)

One Intermediate Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

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 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, both for end consumers and other businesses.
3. Students will learn how to solve practical problems applying applications of mathematics, physics, and descriptive geometry. They will understand and demonstrate proper use of national standards in the creation and revision of technical drawings.

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/cadd/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Intermediate Technical Certificate: Mechanical Drafting

(1 Year)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADD 0101</td>
<td>Drafting Technology Theory I</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0102</td>
<td>Drafting Technology Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0109</td>
<td>Drafting Applied Mathematics I</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0111</td>
<td>Drafting Technology Theory II</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0112</td>
<td>Drafting Technology Laboratory II</td>
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</tr>
<tr>
<td>CADD 0119</td>
<td>Drafting Applied Mathematics II</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0121</td>
<td>Mechanical Drafting Technology Theory I</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0122</td>
<td>Mechanical Drafting Technology Lab I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0129</td>
<td>Drafting Applied Mathematics III</td>
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<tr>
<td>CADD 0137</td>
<td>Mechanical Drafting Technology Theory II</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0138</td>
<td>Mechanical Drafting Technology Laboratory II</td>
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</tr>
<tr>
<td>CADD 0207</td>
<td>Architectural Design Theory I</td>
<td>2</td>
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<tr>
<td>CADD 0208</td>
<td>Architectural Design Laboratory I</td>
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<tr>
<td>CADD 0209</td>
<td>Drafting Applied Mathematics V</td>
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<td>CADD 0217</td>
<td>Architectural Design Theory II</td>
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<td>CADD 0218</td>
<td>Architectural Design Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0227</td>
<td>Structural Steel Drafting Theory</td>
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</tr>
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<td>CADD 0228</td>
<td>Structural Steel Drafting Laboratory</td>
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<tr>
<td>CADD 0237</td>
<td>Parametric Modeling Theory</td>
<td>2</td>
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<tr>
<td>CADD 0238</td>
<td>Parametric Modeling Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
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</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 58

1: Contributes to a General Education requirement.

Associate of Applied Science Degree: Computer Aided Design Drafting Technology

(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADD 0101</td>
<td>Drafting Technology Theory I</td>
<td>2</td>
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<tr>
<td>CADD 0102</td>
<td>Drafting Technology Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0109</td>
<td>Drafting Applied Mathematics I</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0111</td>
<td>Drafting Technology Theory II</td>
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</tr>
<tr>
<td>CADD 0112</td>
<td>Drafting Technology Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0119</td>
<td>Drafting Applied Mathematics II</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0121</td>
<td>Mechanical Drafting Technology Theory I</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0122</td>
<td>Mechanical Drafting Technology Lab I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0129</td>
<td>Drafting Applied Mathematics III</td>
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<tr>
<td>CADD 0137</td>
<td>Mechanical Drafting Technology Theory II</td>
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<td>CADD 0138</td>
<td>Mechanical Drafting Technology Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0139</td>
<td>Drafting Applied Mathematics IV</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours: 58

1: Contributes to a General Education requirement.
CADD 0101 Drafting Technology Theory I: 2 semester hours.
Basic drafting fundamentals and theory. Includes lettering, linework, spatial visualization and multiview drawings. COREQ: CADD 0102 and CADD 0109. F

CADD 0102 Drafting Technology Laboratory I: 3 semester hours.
Apply Drafting Technology Theory I using drawing boards, drafting instruments, and CAD systems. COREQ: CADD 0101. F

CADD 0109 Drafting Applied Mathematics I: 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. Includes sections, auxiliaries and dimensioning. PREREQ: CADD 0101, COREQ: CADD 0112 and CADD 0119. F

CADD 0112 Drafting Technology Laboratory II: 3 semester hours.
Apply Drafting Technology Theory II using drawing boards, drafting instruments, and CAD system. PREREQ: CADD 0102. COREQ: CADD 0111. F

CADD 0119 Drafting Applied Mathematics II: 2 semester hours.
Descriptive geometry applications related to design drafting explored. PREREQ: CADD 0109. F

CADD 0121 Mechanical Drafting Technology Theory I: 2 semester hours.
Drafting theory of welding symbology, gearing, threads and fasteners, manufacturing processes, axonometric projection, and geometric dimensioning and tolerancing. PREREQ: CADD 0111. COREQ: CADD 0122 and CADD 0129. S

CADD 0122 Mechanical Drafting Technology Lab I: 3 semester hours.
Apply Mechanical Drafting Technology Theory I including welding symbology, gearing, threads and fasteners, manufacturing processes, axonometric projection, and geometric dimensioning and tolerancing using CAD systems. PREREQ: CADD 0112. COREQ: CADD 0121. S

CADD 0129 Drafting Applied Mathematics III: 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 of working drawings, assemblies, piping concepts, advanced dimensioning and tolerancing principles. Introduction to fundamentals of flat pattern layouts, and 3D modeling. PREREQ: CADD 0121. COREQ: CADD 0138 and CADD 0139. S

CADD 0138 Mechanical Drafting Technology Laboratory II: 3 semester hours.
Apply Mechanical Drafting Technology Theory II including working drawings and 3D modeling using CAD systems with emphasis on drawing details, subassemblies, and assemblies. Applications of advanced dimensioning and tolerancing principles, flat pattern layouts, revolutions, and piping using CAD systems. PREREQ: CADD 0122. COREQ: CADD 0137. S

CADD 0139 Drafting Applied Mathematics IV: 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, and an introduction to basic electrical drafting theory. PREREQ: CADD 0137. 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 current Building Information Modeling (BIM) software. Basic electrical drafting applications using CAD systems. PREREQ: CADD 0138. COREQ: CADD 0207. F

CADD 0209 Drafting Applied Mathematics V: 2 semester hours.
Introduction to statistics and probability and applied analytic geometry concepts. Solutions of problems relating to design drafting are emphasized. PREREQ: CADD 0139. 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.
Applications of advanced dimensioning and tolerancing principles, flat pattern layouts, revolutions, and piping using CAD systems. PREREQ: CADD 0208 and CADD 0209. F

CADD 0237 Parametric Modeling Theory: 2 semester hours.
Instruction in drafting theory of welding symbology, gearing, threads and fasteners, manufacturing processes, axonometric projection, and geometric dimensioning and tolerancing using CAD systems. PREREQ: CADD 0111. COREQ: CADD 0122 and CADD 0129. S

CADD 0238 Parametric Modeling 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

COMM 1101 Principles of Speech 2
One four-credit physical science course that includes a lab and partially satisfies a General Education requirement.

General Education courses 1

Total Hours 68

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.
CADD 0237 Parametric Modeling Theory: 2 semester hours.
Advanced instruction in parametric 3D modeling using CAD systems. PREREQ: CADD 0137. COREQ: CADD 0238. S

CADD 0238 Parametric Modeling Laboratory: 3 semester hours.
Application of Parametric Modeling Theory to create parametric 3D models using CAD systems. PREREQ: CADD 0138. COREQ: CADD 0237. S

CADD 0295 CADD Internship: 1-16 semester hour.
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 hour.
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 hour.
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
Computerized Machining Technology

Faculty
Coordinator/Master Instructor
Clay Brown
Moore

Instructor
(1 to 2 Years)

One Basic Technical Certificate, two Advanced Technical Certificates, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

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.

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/computerized_machining/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook. 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.

Based on keyboarding skills, students may be required to take a 1 credit keyboarding class in order to meet the competencies of the program.

Basic Technical Certificate: CNC Programmer
(1 Year)

Requires machining experience; a student needs instructor permission to enroll in this option.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 0261</td>
<td>CNC Introduction to Theory</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0265</td>
<td>Introduction to CNC Machine Practice</td>
<td>6</td>
</tr>
<tr>
<td>MACH 0270</td>
<td>CNC Machining Practice I</td>
<td>4</td>
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<tr>
<td>MACH 0271</td>
<td>CNC Programming Theory I</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0272</td>
<td>CNC Math I</td>
<td>2</td>
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<tr>
<td>MACH 0281</td>
<td>CNC Programming Theory II</td>
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</tr>
<tr>
<td>MACH 0290</td>
<td>CNC Machining Practice II</td>
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</table>

Total Hours 24

Advanced Technical Certificate: CNC Operator
(2 Years)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 0110</td>
<td>Engine Lathe Practice I</td>
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<tr>
<td>MACH 0111</td>
<td>Engine Lathe Theory I</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0112</td>
<td>Machine Math I</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0120</td>
<td>Milling Practice I</td>
<td>5</td>
</tr>
<tr>
<td>MACH 0121</td>
<td>Milling Theory I</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0123</td>
<td>Interpreting Blueprints</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0130</td>
<td>Engine Lathe Practice II</td>
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<tr>
<td>MACH 0136</td>
<td>Applied Machining Geometry and Trigonometry</td>
<td>2</td>
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<tr>
<td>MACH 0140</td>
<td>Milling Practice II</td>
<td>6</td>
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<tr>
<td>MACH 0230</td>
<td>CNC Mill Operations</td>
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<tr>
<td>MACH 0240</td>
<td>CNC Lathe Operations</td>
<td>8</td>
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<tr>
<td>MACH 0250</td>
<td>Advanced Machine Practice I</td>
<td>7</td>
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<tr>
<td>MACH 0261</td>
<td>CNC Introduction to Theory</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0265</td>
<td>Introduction to CNC Machine Practice</td>
<td>6</td>
</tr>
<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
<td>2</td>
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<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
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<td>ENGL 1101</td>
<td>English Composition</td>
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<tr>
<td>ENGL 1101P</td>
<td>English Composition Plus</td>
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</tbody>
</table>

Total Hours 70

1. Contributes to a General Education requirement.

Advanced Technical Certificate: Machining Technology
(2 Years)

Required Courses:

The following required courses must be completed with a 2.0 GPA:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 0110</td>
<td>Engine Lathe Practice I</td>
<td>5</td>
</tr>
<tr>
<td>MACH 0111</td>
<td>Engine Lathe Theory I</td>
<td>2</td>
</tr>
<tr>
<td>MACH 0112</td>
<td>Machine Math I</td>
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<tr>
<td>MACH 0120</td>
<td>Milling Practice I</td>
<td>5</td>
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<td>MACH 0121</td>
<td>Milling Theory I</td>
<td>2</td>
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<tr>
<td>MACH 0123</td>
<td>Interpreting Blueprints</td>
<td>2</td>
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<td>MACH 0130</td>
<td>Engine Lathe Practice II</td>
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<td>MACH 0136</td>
<td>Applied Machining Geometry and Trigonometry</td>
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<td>MACH 0140</td>
<td>Milling Practice II</td>
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<tr>
<td>MACH 0220</td>
<td>CAD and CAM I Applications</td>
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<td>MACH 0221</td>
<td>CAD and CAM I Theory</td>
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<td>MACH 0225</td>
<td>Interpreting Technical Data</td>
<td>2</td>
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<td>MACH 0250</td>
<td>Advanced Machine Practice I</td>
<td>7</td>
</tr>
<tr>
<td>MACH 0261</td>
<td>CNC Introduction to Theory</td>
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</tr>
<tr>
<td>MACH 0265</td>
<td>Introduction to CNC Machine Practice</td>
<td>6</td>
</tr>
<tr>
<td>MACH 0270</td>
<td>CNC Machining Practice I</td>
<td>4</td>
</tr>
</tbody>
</table>
The following required courses must be completed with a 2.0 GPA:

**Required Courses:**

- MACH 0271 CNC Programming Theory I 2
- MACH 0272 CNC Math I 2
- MACH 0275 CAD and CAM II 2
- MACH 0281 CNC Programming Theory II 2
- MACH 0290 CNC Machining Practice II 6
- TGE 0158 Employment Strategies 2
- COMM 1101 Principles of Speech 3
- ENGL 1101 English Composition 3
- or ENGL 1101P English Composition Plus

Total Hours 80

1. Contributes to a General Education requirement.

**Associate of Applied Science Degree: Computerized Machining Technology**

(2 Years)

**Required Courses:**

The following required courses must be completed with a 2.0 GPA:

- MACH 0110 Engine Lathe Practice I 5
- MACH 0111 Engine Lathe Theory I 2
- MACH 0112 Machine Math I 2
- MACH 0120 Milling Practice I 5
- MACH 0121 Milling Theory I 2
- MACH 0123 Interpreting Blueprints 2
- MACH 0130 Engine Lathe Practice II 5
- MACH 0136 Applied Machining Geometry and Trigonometry 2
- MACH 0140 Milling Practice II 6
- MACH 0220 CAD and CAM I Applications 3
- MACH 0221 CAD and CAM I Theory 3
- MACH 0225 Interpreting Technical Data 2
- MACH 0250 Advanced Machine Practice I 7
- MACH 0261 CNC Introduction to Theory 2
- MACH 0265 Introduction to CNC Machine Practice 6
- MACH 0270 CNC Machining Practice I 4
- MACH 0271 CNC Programming Theory I 2
- MACH 0272 CNC Math I 2
- MACH 0275 CAD and CAM II 2
- MACH 0281 CNC Programming Theory II 2
- MACH 0290 CNC Machining Practice II 6
- TGE 0158 Employment Strategies 2

**General Education courses**

- COMM 1101 Principles of Speech 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 Hours 90

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.

**Courses**

- **MACH 0110 Engine Lathe Practice I: 5 semester hours.**
  Basic engine lathe cutting operations of turning, facing, boring, threading and feeds. Course covers basic algebra. F, S

- **MACH 0111 Engine Lathe Theory I: 2 semester hours.**
  A basic theory course dealing with engine lathe terminology, uses, functions, tooling and concepts. Emphasis is placed on study habits and class participation. COREQ: MACH 0110. F, S

- **MACH 0121 Milling Theory I: 2 semester hours.**
  A basic theory course dealing with milling machine terminology, uses, functions, tooling, and concepts. Emphasis is placed on study habits and class participation. COREQ: MACH 0120. F, S

- **MACH 0123 Interpreting Blueprints: 2 semester hours.**
  Identifies blueprint information through the interpretation of lines, symbols and numbers as shown on two- and three-view orthographic drawings and geometric dimensioning and tolerance drawings. F, S

- **MACH 0130 Engine Lathe Practice II: 5 semester hours.**
  A continuation of MACH 0110 machining more advanced lathe projects. PREREQ: MACH 0110. F, S

- **MACH 0136 Applied Machining Geometry and Trigonometry: 2 semester hours.**
  More advanced math course using geometry and trigonometry required when solving threading, tapering, chords, arcs, areas, and milling speed/feed problems in a machine shop environment. PREREQ: MACH 0112. F, S

- **MACH 0140 Milling Practice II: 6 semester hours.**
  A continuation of MACH 0120 on horizontal and vertical milling machines, performed to closer tolerances and time limits. Also includes grinding, layout and drilling operations as scheduling permits. PREREQ: MACH 0120. F, S

- **MACH 0220 CAD and CAM I Applications: 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 I Theory: 3 semester hours.**
  Introductory theory course in the utilization of CAD/CAM systems. COREQ: MACH 0220. F, S

- **MACH 0225 Interpreting Technical Data: 2 semester hours.**
  Study of tables, charts, formulas, thread calculations, and related information as required of a machinist working in industry. F, S

- **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 0250 Advanced Machine Practice I: 7 semester hours.**
  Advanced machining practices on engine lathes, grinders, drill inspection, and metal layout. PREREQ: MACH 0140. 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: 6 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: 2 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 0136. F, S

MACH 0275 CAD and CAM 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 0281 CNC Programming Theory II: 2 semester hours.
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 0290 CNC Machining Practice II: 6 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 0296 Independent Study: 1-8 semester hour.
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 hour.
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
Cosmetology

Faculty
Coordinator/Advanced Instructor
Fuger

Advanced Instructor
Jackson

Instructors
Greene
Muir

(Summer Session to 1.5 Years)

One Basic Technical Certificate and one Advanced Technical Certificate are available. 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.

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.

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/cosmetology/.

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.

Basic Technical Certificate: Nail Technology
(Summer Session Only)

Required Course:
Successful completion is required to be eligible to take the State Board - Examination.

COSM 0150 Principles and Practices of Nail Technology 11

Total Hours 11

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.

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

Total Hours 56

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 Principles and Practices of Nail Technology: 11 semester hours.
Nail care and design methods including manicuring, pedicuring, sculpted nail application, nail care, chemistry, biological concepts, anatomy and physiology of nails, and safety standards and procedures. Su

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

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 hour.
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 hour.
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 hour.
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
Diesel/On-Site Power Generation Technology

Faculty
Coordinator/Advanced Instructor
G. Holmes

Senior Instructor
K. Dixon

Advanced Instructor
Schwope

Instructor
T. Anderson
(vacant)

(1.5 to 2 Years)

Two Advanced Technical Certificate options, two Associate of Applied Science degrees, and a Bachelor of Applied Science degree are available.

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.

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/diesel/.

Advanced Technical Certificate: Diesel Technology
(1.5 Years)

Required Courses:

- DESL 0101 Introduction to Diesel Technology 2
- 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 0117 Heavy Duty Brake Systems 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 4
- DESL 0217 Advanced Engine Electronics Systems 4
- DESL 0231 Live Work Capstone Class 8
- or DESL 0232 Internship Capstone Class
- TGE 0135 Workplace Relations 3

Elective Courses:

- DESL 0298 Special Topics 1-8
- WELD 0105 Welding 1-4

Total Hours: 56

Advanced Technical Certificate: On-Site Power Generation Technology
(2 Years)

Required Courses:

- DESL 0101 Introduction to Diesel Technology 2
- 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 0117 Heavy Duty Brake Systems 2
- DESL 0125 Heavy Duty Power Trains 8
- DESL 0184 Diesel Engine Electrical Systems 2
- DESL 0186 Diesel Engine Emission Systems 1
- DESL 0207 Advanced Diesel Electrical Systems 4
- DESL 0215 Advanced Hydraulics 4
- 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 0135 Workplace Relations 3
- TGE 0158 Employment Strategies 2

Total Hours: 72

Associate of Applied Science Degree: Diesel Technology
(2 Years)

Required Courses:

- DESL 0101 Introduction to Diesel Technology 2
- DESL 0107 Basic Diesel Electrical Systems 2

Elective Courses:

- DESL 0298 Special Topics 1-8
- WELD 0105 Welding 1-4

Total Hours: 56

1 Contributes to a General Education requirement.
### Associate of Applied Science Degree: On-Site Power Generation Technology

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESL 0101</td>
<td>Introduction to Diesel Technology</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0107</td>
<td>Basic Diesel Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0109</td>
<td>Cab Climate Control</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0113</td>
<td>Diesel Engine Fuel Systems</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0115</td>
<td>Diesel Hydraulics I</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0117</td>
<td>Heavy Duty Brake Systems</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0125</td>
<td>Heavy Duty Power Trains</td>
<td>8</td>
</tr>
<tr>
<td>DESL 0184</td>
<td>Diesel Engine Technology</td>
<td>5</td>
</tr>
<tr>
<td>DESL 0186</td>
<td>Diesel Engine Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>DESL 0190</td>
<td>Diesel Engine Emission Systems</td>
<td>1</td>
</tr>
<tr>
<td>DESL 0207</td>
<td>Advanced Diesel Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>DESL 0215</td>
<td>Advanced Hydraulics</td>
<td>4</td>
</tr>
<tr>
<td>DESL 0217</td>
<td>Advanced Engine Electronics Systems</td>
<td>4</td>
</tr>
<tr>
<td>DESL 0231</td>
<td>Live Work Capstone Class</td>
<td>8</td>
</tr>
<tr>
<td>or DESL 0232</td>
<td>Internship Capstone Class</td>
<td>2</td>
</tr>
</tbody>
</table>

### General Education courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional General Education courses

Total Hours: 79

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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.
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 0207 Advanced Diesel Electrical Systems: 4 semester hours.
Provides instruction pertaining to electrical and electronic terminology, operating procedures of analog and digital instruments, proper testing, and handling of electronic testing equipment. All functions of multi-meter use and circuit analysis including schematic reading, circuit troubleshooting, and testing of electronic engine components. COREQ: DESL 0115 and DESL 0215. PREREQ: DESL 0101 and DESL 0107. D

DESL 0215 Advanced Hydraulics: 4 semester hours.
Addresses troubleshooting hydraulic and hydrostatic drive systems. 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, DESL 0117, and DESL 0207. 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 troubleshooting 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 hour.
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 hour.
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
Early Childhood Care and Education Associate Degree Program

Faculty

Co-coordinators/Instructors
Grimes
Koplin

(1 to 2 Years)

One Basic Technical Certificate, one Intermediate Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Technology degree are available.

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.

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 http://www.isu.edu/ctech/childdevelopment/.

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. For more information about this degree go online to https://next.coursecat.isu.edu/undergraduate/education/childandfamilystudies/#programstext

The Associate of Applied Science Early Childhood Care and Education program is accredited by the National Association for the Education of Young Children.

Basic Technical Certificate: Family Child Care

Program offering of this option will depend upon sufficient student interest and availability of instructor.

(1 Year -- Evening)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 0160</td>
<td>Professionalism in Family Child Care</td>
<td>1</td>
</tr>
<tr>
<td>CHLD 0161</td>
<td>Child Health and Safety in Family Child Care</td>
<td>1</td>
</tr>
<tr>
<td>CHLD 0162</td>
<td>Environments in Family Child Care</td>
<td>1</td>
</tr>
<tr>
<td>CHLD 0164</td>
<td>Early Childhood Social and Emotional Development in Family Child Care</td>
<td>2</td>
</tr>
<tr>
<td>CHLD 0166</td>
<td>Guidance in Early Childhood Education in Family Child Care</td>
<td>1</td>
</tr>
</tbody>
</table>

Students who have earned a Basic Technical Certificate (12 credits) need the following course to build on these credits toward the Intermediate Technical Certificate (32 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 0113</td>
<td>Curriculum Practicum in Early Childhood Care and Education</td>
<td>20</td>
</tr>
</tbody>
</table>

1 Students interested in this upgrade should contact program faculty prior to registering for this course.

Intermediate Technical Certificate: Early Childhood Care and Education

(1 Year Daytime or 2 Years Evening)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHLD 0105</td>
<td>Introduction to Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0110</td>
<td>Child Health Safety Nutrition and Environment</td>
<td>4</td>
</tr>
<tr>
<td>CHLD 0120</td>
<td>Social and Emotional Development in Early Childhood Care and Education</td>
<td>6</td>
</tr>
<tr>
<td>CHLD 0125</td>
<td>Guidance in Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0130</td>
<td>Physical and Cognitive Development in Early Childhood</td>
<td>6</td>
</tr>
<tr>
<td>CHLD 0135</td>
<td>Fostering Creativity</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0141</td>
<td>Family Centered Care and Program Management in Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0151</td>
<td>Curriculum Planning and Implementation in Early Childhood Care and Education</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
</tr>
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</table>

or ENGL 1101P English Composition Plus

Total Hours 35

1 Contributes to a General Education requirement.

Associate of Applied Science Degree: Early Childhood Care and Education

(2 Years)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHLD 0105</td>
<td>Introduction to Early Childhood Care and Education</td>
<td>3</td>
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<tr>
<td>CHLD 0110</td>
<td>Child Health Safety Nutrition and Environment</td>
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<tr>
<td>CHLD 0120</td>
<td>Social and Emotional Development in Early Childhood Care and Education</td>
<td>6</td>
</tr>
<tr>
<td>CHLD 0125</td>
<td>Guidance in Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Hours</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>CHLD 0130</td>
<td>Physical and Cognitive Development in Early Childhood</td>
<td>6</td>
</tr>
<tr>
<td>CHLD 0135</td>
<td>Fostering Creativity</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0141</td>
<td>Family Centered Care and Program Management in Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0151</td>
<td>Curriculum Planning and Implementation in Early Childhood Care and Education</td>
<td>4</td>
</tr>
<tr>
<td>CHLD 0210</td>
<td>Advanced Topics in Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0215</td>
<td>Children with Exceptionalities</td>
<td>2</td>
</tr>
<tr>
<td>CHLD 0220</td>
<td>Administration and Program Management in Early Childhood Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 0250</td>
<td>Capstone Project in Early Childhood Care and Education</td>
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<tr>
<td></td>
<td><strong>General Education requirements</strong></td>
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<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1101P</td>
<td>English Composition Plus</td>
<td></td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td>BIOL 1100 &amp; 1100L</td>
<td>Concepts Biology Human Concerns and Concepts Biology Human Concerns Lab</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
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</tr>
<tr>
<td>or SOC 1101</td>
<td>Introduction to Sociology</td>
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</tr>
<tr>
<td>Select 3 credits from Objectives 4, 7, 8, or 9</td>
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<td><strong>Total Hours</strong></td>
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</table>

**Elective Courses:**

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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 0296</td>
<td>Independent Study</td>
<td>1-8</td>
</tr>
<tr>
<td>CHLD 0298</td>
<td>Special Topics</td>
<td>1-8</td>
</tr>
</tbody>
</table>

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.

**Courses**

**CHLD 0105 Introduction to Early Childhood Care and Education: 3 semester hours.**

Introduces early childhood care and education (ECCE) and the role of the teacher. Orientation to the Early Childhood Associate Degree Program, including professionalism in ECCE, an overview of child growth and development, and how to observe children. Includes classroom lecture and practicum. F

**CHLD 0110 Child Health Safety Nutrition and Environment: 4 semester hours.**

Promoting and maintaining health and well-being of children, including health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, indoor and outdoor environmental design, schedules and routines, recognition and reporting of abuse and neglect, and licensing regulations. Includes classroom lecture and practicum. F

**CHLD 0113 Curriculum Practicum in Early Childhood Care and Education: 4-20 semester hour.**

Practical experience with planning, implementing and evaluating curriculum that enhances children’s development in all domains. Upon completion, students who have completed the PSTC will meet requirements for entry into the second year of the A.A.S. Includes credit for documented work experience after obtaining a CDA. May be repeated for up to 20 credits. 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, S

**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, S

**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. F, 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. F, 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 0160 Professionalism in Family Child Care: 1 semester hour.**

An introductory course including orientation to the Child Development program; stages of child development. Introduction to professional organizations, networks, community resources, and advocacy. Also including methods of observation and use of observations to plan curriculum. Includes classroom lectures and individualized instruction. F, S
CHLD 0161 Child Health and Safety in Family Child Care: 1 semester hour.  
Safe and healthy environments for young children. Health and safety practices in early care and education. Students will be taught how to assess and ensure safe indoor and outdoor areas. Includes mental health and personal safety, classroom lectures, and individualized instruction. F, S

CHLD 0162 Environments in Family Child Care: 1 semester hour.  
Students will be taught how to assess, develop and implement stimulating learning environments for infants, toddlers, and preschool children. Includes classroom lectures and individualized instruction. F, S

CHLD 0164 Early Childhood Social and Emotional Development in Family Child Care: 2 semester hours.  
Introduction to children's social development, social awareness, and concept of self. This course focuses on development of personal self-esteem in caregivers as well as children. Includes classroom lectures and individualized instruction. F, S

CHLD 0166 Guidance in Early Childhood Education in Family Child Care: 1 semester hour.  
Positive guidance techniques. Learning includes supporting social and emotional development by helping children to learn and practice appropriate and acceptable behaviors as individuals and as a group. Includes classroom lectures and individualized instruction. F, S

CHLD 0168 Early Childhood Physical and Cognitive Development in Family Child Care: 2 semester hours.  
Introduction to children's physical and cognitive development. This course focuses on providing an environment supportive of children's acquisition of motor and cognitive competence through activities and opportunities that encourage curiosity, development levels and learning styles of children. Includes classroom lectures and individualized instruction. F, S

CHLD 0170 Fostering Creativity in Family Child Care: 1 semester hour.  
An introductory course which includes the value of play for children and methods to advance emotional, physical and intellectual competence through opportunities that stimulate children to play with sound, rhythm, language materials, space and ideas in individual ways, and to express their creative abilities. Creativity in caregivers is also examined. Includes classroom lectures and individualized instruction. F, S

CHLD 0172 Curriculum Implementation in Family Child Care: 2 semester hours.  
This course combines skills learned in previous courses into responsibility for planning and implementation in the classroom. This course focuses on applying theory into a practical setting. Includes classroom lectures and individual instruction. F, S

CHLD 0174 Parent Involvement and Program Management in Family Child Care: 1 semester hour.  
This course introduces students to family education, program management and professionalism in early childhood education. Topics studied in depth include: parenting styles and strategies, family communication, discipline, stress management, functional and dysfunctional families, family structures, team building, time management, job interviews, resume development, professional image, and professional development. Includes classroom lectures and individualized instruction. F, 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, BT 0170, 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, BT 0170, 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 and BT 0170. 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 hour.  
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 hour.  
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
Energy Systems Technology and Education Center

Faculty
Executive Director
Beaty
Chair/Instructor
Pitcher
Coordinator/Advanced Instructor
S. Larson
Coordinators/Instructors
Fort
Perschon
E. Smith
Advanced Instructors
Maclure
Shepherd
Instructors
Tauscher

One Basic Technical Certificate, one Intermediate Technical Certificate, and four Associate of Applied Science degrees are available.

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 is 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.

Students must have COMPASS test scores of 45 in Algebra and 68 in English to qualify for entry into an Energy Systems Engineering Technology program. 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, Instrumentation and Automation, 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 any theory course. For a Program Information Packet, visit http://www.isu.edu/ctech/programs.shtml, 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.

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, one Intermediate Technical Certificate and four Associate of Applied Science degrees that integrate the education and training required for graduates to maintain existing power plants as well as to install 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
- 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
- Energy Systems Renewable Energy Technology (Inactive)

## Basic Technical Certificate: Instrumentation and Automation Assistant

**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.

### Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ESET 0103</td>
<td>Introduction to Electronics Theory</td>
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<td>Introduction to Electronics Lab</td>
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<td>ESET 0104</td>
<td>DC Electronics Principles Theory</td>
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<td>DC Electronics Principles Lab</td>
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<td>ESET 0105</td>
<td>AC Electronics Principles Theory</td>
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<td>AC Electronics Principles Lab</td>
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<td>INST 0140</td>
<td>Introduction to Motors and Motor Control Theory</td>
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<td>INST 0220</td>
<td>Introduction to Programmable Logic Controllers</td>
<td>3</td>
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<tr>
<td>INST 0240</td>
<td>Theory</td>
<td>2</td>
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<td>INST 0242</td>
<td>Theory</td>
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<td>INST 0251</td>
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<td>INST 0253</td>
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<td>INST 0254</td>
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**Total Hours: 24**


**(1 Year)**

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<tr>
<th>Course</th>
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<td>ESET 0101L</td>
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</tr>
<tr>
<td>ESET 0102</td>
<td>Electrical Circuits II</td>
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<tr>
<td>ESET 0102L</td>
<td>Electrical Circuits II Laboratory</td>
<td>5</td>
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<tr>
<td>ESET 0141</td>
<td>Applied Mathematics I</td>
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<tr>
<td>ESET 0142</td>
<td>Applied Mathematics II</td>
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<tr>
<td>COMM 1101</td>
<td>Principles of Speech ¹</td>
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</table>

**Total Hours: 32**

¹ Contributes to a General Education requirement.


**(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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<td>ESET 0122</td>
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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 Hours  33

Additional General Education courses  6
Total Hours  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 Degree: Energy Systems Instrumentation Engineering Technology**

(2 Years)

**Objective:**
Graduates will be able to: (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; and (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.

**Required Courses:**

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>Introduction to Engineering Technology</td>
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<td>Thermal Cycles and Heat Transfer</td>
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<td>Boiler Reactor and Turbine Principles</td>
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**General Education courses**

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<td>or PHYS 1101/1101L</td>
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<td>COMM 1101</td>
<td>Principles of Speech</td>
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<td>MATH 1153</td>
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<td>or MATH 1170</td>
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<td>Elements of Physics</td>
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<tr>
<td>or CHEM 1100</td>
<td>Architecture of Matter</td>
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</table>
**Associate of Applied Science Degree: Energy Systems Mechanical Engineering Technology**  
(2 Years)

**Objective:**
Graduates will be able to: (1) solve technical problems typical of those encountered in the energy systems mechanical 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.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ESET 0100</td>
<td>Introduction to Engineering Technology</td>
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<td>Introduction to Engineering Technology Laboratory</td>
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<td>ESET 0121</td>
<td>Basic Electricity and Electronics</td>
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<td>Basic Electricity and Electronics Laboratory</td>
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<td>Electrical Systems and Motor Control Theory</td>
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<td>ESET 0215</td>
<td>Introduction to Structural Welding</td>
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<td>ESET 0216</td>
<td>Introduction to Mechanical Drafting and Computer Aided Design</td>
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<td>Mechanical Power Transmission</td>
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<tr>
<td>ESET 0221</td>
<td>Boiler Reactor and Turbine Principles</td>
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<tr>
<td>ESET 0240</td>
<td>Pumps</td>
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<td>Pump Applications Laboratory</td>
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<td>ESET 0241</td>
<td>Valves and Piping</td>
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<td>ESET 0242</td>
<td>Process Measurements for Mechanical Engineering Technology</td>
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<td>ESET 0243</td>
<td>Hydraulic and Pneumatic Power</td>
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<td>ESET 0244</td>
<td>Rotating Equipment and Millwright Maintenance</td>
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<td>Rotating Equipment and Millwright Maintenance Lab</td>
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<td>ESET 0245</td>
<td>Fundamentals of Heat Exchangers</td>
<td>2</td>
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<td>ESET 0246</td>
<td>Materials and Metallurgy</td>
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**General Education courses**

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<td>ESET 0221</td>
<td>Boiler Reactor and Turbine Principles</td>
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<td>ESET 0222</td>
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<td>ESET 0248</td>
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<td>ESET 0249</td>
<td>Reactor Plant Materials</td>
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<td>ESET 0280</td>
<td>Capstone and Case Studies in Nuclear Engineering Technology</td>
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<td>TGE 0159</td>
<td>Internship Strategies</td>
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</table>

**Associate of Applied Science Degree: Energy Systems Nuclear Operations Technology**  
(2 Years)

**Objective:**
Graduates will be able to: (1) solve basic technical problems typical of what is encountered when working at a nuclear power plant; (2) perform tests and experiments, data analysis, and report findings including recommendations for improvement; (3) work and communicate effectively in diverse and multidisciplinary teams; (4) be aware of modern professional, ethical, and societal issues as well as recognize the need for lifelong learning.

Students must register concurrently for the lab course associated with each theory course.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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**General Education courses**

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<tr>
<td>&amp; 1111L</td>
<td>and General Chemistry I Lab</td>
<td>2</td>
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<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
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</table>
MATH 1153 or MATH 1170 Calculus I 3-4
PHYS 1101 Elements of Physics and Elements of Physics Laboratory 4
Additional General Education courses 6
Total Hours 81-82

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 Degree: 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.

Required Courses:
ESET 0100 Introduction to Engineering Technology 1
ESET 0121 Basic Electricity and Electronics 4
ESET 0121L Basic Electricity and Electronics Laboratory 4
ESET 0122 Electrical Systems and Motor Control Theory 2
ESET 0122L Electrical Systems and Motor Control Theory Laboratory 1
ESET 0123 Mechanical Power Transmission 2
ESET 0123L Mechanical Power Transmission Laboratory 4
ESET 0141 Applied Mathematics I 4
ESET 0142 Applied Mathematics II 4
ESET 0150 Introduction to Wind Energy Systems 2
ESET 0150L Introduction to Wind Energy Systems Laboratory 1
ESET 0212 Electrical Systems Documentation and Standards 1
ESET 0231 Microcontrollers 2
ESET 0231L Microcontrollers Laboratory 1
ESET 0232 Electrical Machines 3
ESET 0232L Electrical Machines Laboratory 3
ESET 0233 Electrical Power Systems 3
ESET 0233L Electrical Power Systems Laboratory 3
ESET 0240 Pumps 3
ESET 0240L Pump Applications Laboratory 3
ESET 0243 Hydraulic and Pneumatic Power 2
ESET 0243L Hydraulic and Pneumatic Power Laboratory 2
ESET 0247 Wind Energy Control Systems 2
ESET 0247L Wind Energy Control Systems Laboratory 1

TGE 0159 Internship Strategies 1

General Education courses
COMM 1101 Principles of Speech 2 3
MATH 1153 Introduction to Statistics 2 3-4
PHYS 1101 Elements of Physics and Elements of Physics Laboratory 4
Additional General Education courses 6
Total Hours 75-76

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 Degree: Industrial Controls
(1 Year)
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.

Required Courses:
INST 0282 Electrical Automation Laboratory 5
INST 0292 Process Measurement and Control Theory 10
INST 0293 Process Measurement and Control Laboratory 4
CHEM 1100 Architecture of Matter 4
or PHYS 1101/1101L Elements of Physics 1

Total Hours 31

Energy Sys Engr Tech Courses
ESET 0100 Introduction to Engineering Technology: 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 Introduction to Engineering Technology Laboratory: 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 0101L. 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 logic 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 hour.
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 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, 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, D

ESET 0121 Basic Electricity and Electronics: 4 semester hours.
Fundamental principles of electricity, Ohm's law, Kirchoff's laws, and circuit analysis applied to DC and AC circuits. COREQ: ESET 0121L. F, D

ESET 0121L Basic Electricity and Electronics Laboratory: 4 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: 2 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 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: 4 semester hours.
Introduction to machine kinetics, kinematics, and design. Drives, bearings, couplings, clutches, gears, and fluids used in the transmission of power in industrial processes are covered. PREREQ: ESET 0121, ESET 0121L, or permission of instructor. COREQ: ESET 0127L. S, D

ESET 0127L Mechanical Power Transmission Laboratory: 3 semester hours.
The application of drives, bearings, couplings, clutches, gears, and fluids used in the transmission of power in industrial processes are covered. Students will develop machine documentation and mechanical millwright skills. PREREQ: ESET 0121 and ESET 0121L, or permission of instructor. COREQ: ESET 0127. S, 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: 4 semester hours.
Introduces fundamental concepts used throughout the nuclear industry as an integral part of daily operations. Topics include Human Performance Enhancement (HPE) fundamentals, an introduction to the Systematic Approach to Training (SAT), conduct of On-The-Job training (OTJ) and Task Performance Evaluation (TPE), Foreign Material Exclusion (FME), and an overview of the FirstEnergy Nuclear Operating Corporation (FENOC) safety manual. COREQ: ESET 0151L. F

ESET 0151L Nuclear Industry Fundamental Concepts Lab: 1 semester hour.
Laboratory applications of nuclear industry operations. It includes OSHA compliance courses required by nuclear facilities. COREQ: ESET 0151L. F

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 0160L. 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 0199 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content

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 Controller Laboratory: 1 semester hour.**
Applications of Programmable Logic Controls 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 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, 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 0101, ESET 0101L, ESET 0102, ESET 0102L, ESET 0141, ESET 0142, 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. 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. 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 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: 3 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 Process Measurements for Mechanical Engineering Technology: 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. Lecture plus laboratory work in selected topics. 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. 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: 3 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. PREREQ: ESET 0151 and ESET 0151L. F

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, environmental effects on materials, and nuclear specific topics such as 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. F

ESET 0250 Radiation Detection and Protection: 3 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 and ESET 0151L. F
ESET 0251 Reactor Theory Safety and Design: 3 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. PREREQ: ESET 0248, ESET 0249, and ESET 0250. S

ESET 0252 Power Plant Components: 3 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. PREREQ: ESET 0248, ESET 0249, and ESET 0250. S

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 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. PREREQ: ESET 0248, ESET 0249, and ESET 0250. S

ESET 0281 Critical Infrastructure Data Security: 3 semester hours.
Introduction to data security issues including basic encryption and decryption techniques and secure encryption systems. Study includes cryptographic protocols and practices, security in networks and distributed systems and legal and ethical issues in computer security. COREQ: ESET 0282, ESET 0283, ESET 0284, ESET 0285, and ESET 0286. PREREQ: Prior AAS in an Energy System program or instructor approval. 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 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. COREQ: ESET 0281, ESET 0282, ESET 0284, ESET 0285, and ESET 0286. PREREQ: Prior AAS in Energy System program or instructor approval. S, 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. 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 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. COREQ: ESET 0281, ESET 0282, ESET 0283, ESET 0284, and ESET 0285. PREREQ: Prior AAS in an Energy System program or instructor approval. S, D

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 hour.
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 hour.
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 hour.
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

Instr and Auto Engr Tech 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. 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 hour.
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.

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. F, S

INST 0294 Cooperative Training: 1-16 semester hour.
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 hour.
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
Health Information Technology

Faculty
Coordinator/Master Instructor
G. Young

Instructor
(vacant)

(1.5 to 2 Years)

One Intermediate Technical Certificate, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

This program can be taken fully online. Full- and part-time options are available.

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).

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; abstract and code clinical data using appropriate classification systems.
3. Analyze health records according to standards.

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/healthinfo/.

Intermediate Technical Certificate: Medical Coding

(1.5 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3</td>
</tr>
<tr>
<td>HO 0209</td>
<td>Principles of Drugs and Their Uses</td>
<td>3</td>
</tr>
<tr>
<td>HIT 0202</td>
<td>Health Information I</td>
<td>4</td>
</tr>
<tr>
<td>HIT 0205</td>
<td>ICD 10 CM Coding</td>
<td>3</td>
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<tr>
<td>HIT 0206</td>
<td>ICD 10 PCS Coding</td>
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<tr>
<td>HIT 0209</td>
<td>CPT Coding</td>
<td>3</td>
</tr>
<tr>
<td>HIT 0213</td>
<td>Advanced Coding and Reimbursement</td>
<td>4</td>
</tr>
<tr>
<td>HIT 0215</td>
<td>Introduction to Reimbursement</td>
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<tr>
<td>HIT 0240</td>
<td>Medical Coding Practicum</td>
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<td>Total Hours</td>
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</table>

Associate of Applied Science Degree: Health Information Technology

(2 Years)

Required Courses:

All required courses must be completed with a grade of “C” or better.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>HO 0106</td>
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<td>Introduction to Anatomy and Physiology</td>
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<td>OR</td>
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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
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<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
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<td>&amp; 3302L</td>
<td>and Anatomy and Physiology Lab</td>
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<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
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<tr>
<td>or BIOL 3305</td>
<td>Introduction to Pathobiology</td>
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<tr>
<td>HO 0209</td>
<td>Principles of Drugs and Their Uses</td>
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<td>HIT 0201</td>
<td>Supervised Professional Practice I</td>
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<td>HIT 0202</td>
<td>Health Information I</td>
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<td>HIT 0203</td>
<td>Health Statistics and Quality Improvement</td>
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<tr>
<td>HIT 0204</td>
<td>Health Information II</td>
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<td>HIT 0205</td>
<td>ICD 10 CM Coding</td>
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<td>HIT 0206</td>
<td>ICD 10 PCS Coding</td>
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<td>HIT 0209</td>
<td>CPT Coding</td>
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<td>HIT 0213</td>
<td>Advanced Coding and Reimbursement</td>
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<td>HIT 0215</td>
<td>Introduction to Reimbursement</td>
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<td>HIT 0220</td>
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<td>HIT 0224</td>
<td>Informatics Technology II</td>
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<td>ENGL 1101</td>
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<td>or ENGL 1101P</td>
<td>English Composition Plus</td>
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<td>MATH 1123</td>
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<td>or MATH 1153</td>
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<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
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<td>Additional General Education courses</td>
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<td>Total Hours</td>
<td>69</td>
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</table>

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 in Medical Coding

### Required Coursework:

<table>
<thead>
<tr>
<th>First Year</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HO 0106</td>
<td>2 HO 0208</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 0107</td>
<td>3 HIT 0205</td>
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<tr>
<td>HO 0111</td>
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<td>HO 0209</td>
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<tr>
<td>HIT 0215</td>
<td>2</td>
<td>14</td>
<td>12</td>
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</table>

**Total Hours: 38**

### 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 hour.**
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 hour.**
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 hour.**
Courses may be offered no more than three times with the same title and content
Health Occupations Department

Faculty
Chair
P. Peterson

Advanced Instructor
Flint

Health Occupations Programs:
The Health Occupations Department administers programs leading to certificates and degrees in health and human service fields. Included are the following:

- Associate Degree Registered Nursing (p. 379)
- Cosmetology (p. 399)
- Early Childhood Care and Education (p. 404)
- Health Information Technology (p. 419)
- Massage Therapy (p. 427)
- Medical Assisting (p. 430)
- Physical Therapist Assistant (p. 434)
- Practical Nursing (p. 436)
- Respiratory Therapy (p. 438)

This department offers programs to prepare students for a variety of health and human service occupations. The programs offer certificates, Associate of Applied Science, and Associate of Science degrees.

In each program that offers an associate degree, the student may elect to earn a Bachelor of Applied Technology (B.A.T.) (p. 53) degree or a Bachelor of Science in Health Science (BSHS) degree with a Health Occupations Concentration (p. 238). 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 either the B.A.T. or the BSHS degrees.

Bachelor of Science in Health Science Degree
Concentration 3: Health Occupations

Students who have graduated or are enrolled in health occupations' training at the level of an associate degree have the opportunity to pursue a bachelor's degree with an advanced general health science focus when choosing this concentration. A B.S. in Health Science will satisfy many of the prerequisites for a variety of health science-related graduate programs.

A B.S. in Health Science will satisfy many of the prerequisites for a variety of health science-related graduate programs. The programs offer certificates, Associate of Applied Science, and Associate of Science degrees.

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. All students are encouraged to work closely with an advisor within their associate degree programs to ensure that the courses they plan to take will meet their specific career goals.

Degree Requirements:
The B.S. in Health Science degree with the Health Occupations' emphasis includes the following credit requirements which can be divided into four components: Associate Degree requirements, General Education requirements, B.S. in Health Science core requirements, and Associate degree/Health Occupations' Concentration requirements.

Associate Degree Requirements: Each student must be a graduate of or be enrolled in a health occupations' program that awards an associate degree.* Students with an Associate of Applied Science (AAS) degree may apply up to a maximum of 50 credits from this degree (all lower division credits) toward the 120 total credit requirement. Students with an Associate of Science (AS) degree in Respiratory Therapy from ISU may apply 15 upper division Respiratory Therapy (RESP) credits to this 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 Requirements: Students pursuing the Bachelor of Science in Health Science degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the General Education Requirements (p. 47) described in the Academic Information section of this catalog.) Specific requirements may be listed under individual Health Occupations' program curricula (choose programs above).

BSHS Core Courses: BSHS students across all ISU colleges and programs are required to complete a common core of 20-24 credits. See the Bachelor of Science in Health Science in the Division of Health Sciences' section of the catalog for additional information.

Associate Degree/Health Occupations Concentration Requirements (25 credits minimum):

- BIOL 3302 Anatomy and Physiology
  & 3302L and Anatomy and Physiology Lab
- MATH 1153 Introduction to Statistics
- PSYC 3369 AIDS

Chemistry - select one set (7 or 9 credits)

- CHEM 1111 General Chemistry I
  & 1111L and General Chemistry I Lab
- & CHEM 1112 and General Chemistry II
  & CHEM 1112L and General Chemistry II Lab

OR
CHEM 1101 & CHEM 1102 & CHEM 1103  
Introduction to General Chemistry and Introduction to Organic and Biochemistry and Introduction to General Organic and Biochemistry Laboratory

**Physics - Select one combination (4 or 8 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1111</td>
<td>General Physics</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 1113</td>
<td>and General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>and General Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYS 1114</td>
<td>and General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics</td>
<td>4</td>
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**Select one:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
<td>3</td>
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<tr>
<td>HE 3383</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>RESP 2214</td>
<td>Introduction to Pulmonary Disease</td>
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**Select one course (3 credits):**

<table>
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<td>Fitness and Wellness Programs</td>
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<tr>
<td>HCA 3350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HCA 3384</td>
<td>Human Resource Management in Healthcare Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NTD 3340</td>
<td>Nutrition for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>PE 3300</td>
<td>Movement Theory and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PE 3370</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3301</td>
<td>Abnormal Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3341</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>RESP 3310</td>
<td>Case Management II</td>
<td>2</td>
</tr>
<tr>
<td>RESP 3325</td>
<td>Clinical Practice of Therapeutic Procedures II</td>
<td>3</td>
</tr>
<tr>
<td>RESP 2231</td>
<td>Patient Assessment I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; RESP 2232</td>
<td>and Patient Assessment II</td>
<td></td>
</tr>
<tr>
<td>SOC 3330</td>
<td>Sociology of Health and Illness</td>
<td>3</td>
</tr>
</tbody>
</table>

Students pursuing a non-teaching minor in Health Education should contact the Health Education and Promotion Program for details.

A student must fulfill 8 of the 9 General Education Objectives (a minimum of 36 credits—see the General Education Requirements (p. 47) described in the Academic Information section of this catalog), BSHS Core requirements (20-24 credits), and Associate Degree Concentration requirements (25 credits minimum), and earn a minimum of 120 total credits, of which a minimum of 36 must be upper division credits, for a Bachelor of Science in Health Science degree.

**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. 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 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. BIOL 1101 and BIOL 1101L are suggested as prerequisites to this course. PRE-or-COREQ: HO 0106. 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 hour.**
This course is not described in the catalog. The course title and number of credits are announced in the class schedule by the scheduling department. Experimental courses may be offered no more than three times with the same title and content.
Information Technology Systems

Faculty
Coordinator/Senior Instructor
W. Hill
Instructor
B. Hunt

(1 to 2 Years)

One Basic Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

Objectives

Graduates of the Information Technology Systems program will:

1. Develop entry-level skills in servicing, maintaining, and troubleshooting of computer equipment.
2. Develop entry-level skills in setup, maintenance, and troubleshooting of computer networks.
3. Develop entry-level skills in server installation and configuration.

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 http://www.isu.edu/ctech/its/ 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.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Basic Technical Certificate: Computer Network Technician

(1 Year)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ITS 0100</td>
<td>Computer Systems and Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>ITS 0110</td>
<td>Networking Basics I</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0120</td>
<td>Introduction to Unix</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0135</td>
<td>Introduction to Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0150</td>
<td>Networking I</td>
<td>4</td>
</tr>
<tr>
<td>ITS 0175</td>
<td>Desktop Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0180</td>
<td>Network Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>TGE 0135</td>
<td>Workplace Relations</td>
<td>3</td>
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</tbody>
</table>

Total Hours: 28

Advanced Technical Certificate: Computer Network Technician

(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS 0100</td>
<td>Computer Systems and Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>ITS 0110</td>
<td>Networking Basics I</td>
<td>3</td>
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<tr>
<td>ITS 0120</td>
<td>Introduction to Unix</td>
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<tr>
<td>ITS 0175</td>
<td>Desktop Operating Systems</td>
<td>3</td>
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<td>ITS 0180</td>
<td>Network Operating Systems</td>
<td>3</td>
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<tr>
<td>ITS 0200</td>
<td>Data Cabling</td>
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<tr>
<td>ITS 0210</td>
<td>Workplace Relations Practicum</td>
<td>2</td>
</tr>
<tr>
<td>ITS 0215</td>
<td>Networking II</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0220</td>
<td>Networking III</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0230</td>
<td>Wireless Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0240</td>
<td>Securing the LAN</td>
<td>4</td>
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<tr>
<td>TGE 0135</td>
<td>Workplace Relations</td>
<td>3</td>
</tr>
<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
<td>2</td>
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</table>

Total Hours: 53

Associate of Applied Science Degree: Information Technology Systems

(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS 0100</td>
<td>Computer Systems and Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>ITS 0110</td>
<td>Networking Basics I</td>
<td>3</td>
</tr>
<tr>
<td>ITS 0120</td>
<td>Introduction to Unix</td>
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<td>3</td>
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</tr>
<tr>
<td>ITS 0175</td>
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<td>3</td>
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<td>Network Operating Systems</td>
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<tr>
<td>ITS 0200</td>
<td>Data Cabling</td>
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<td>ITS 0210</td>
<td>Workplace Relations Practicum</td>
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<tr>
<td>ITS 0215</td>
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<td>TGE 0135</td>
<td>Workplace Relations</td>
<td>3</td>
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<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
<td>2</td>
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Total Hours: 53

1. Contributes to a General Education requirement.
General Education courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMM 1101</td>
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<tr>
<td>Additional General Education courses</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>

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.

Courses

**ITS 0100 Computer Systems and Troubleshooting: 4 semester hours.**
Fundamentals of computer hardware and software. Students will describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Lecture/laboratory. F, S

**ITS 0110 Networking Basics I: 3 semester hours.**
Classroom and laboratory experience in current and emerging networking technology. Includes network terminology and protocols, LANs, OSI model, cabling, cabling tools, IP addressing, and network standards. Uses networking software, tools, and equipment. Lecture/laboratory. F, S

**ITS 0120 Introduction to Unix: 3 semester hours.**
Introduction to UNIX operating system and graphical user interfaces. Includes an overview of the Sun Solaris and Linux versions of the UNIX operating system. Lecture/laboratory. F, S

**ITS 0135 Introduction to Operating Systems: 3 semester hours.**
Survey of current operating systems. Students will be introduced to common Microsoft operating systems used in servers and desktop computing 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 0175 Desktop Operating Systems: 3 semester hours.**
Study of the installation, security, and GUI of desktop operating systems. PREREQ: ITS 0100 and ITS 0135. F, S

**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 0200 Data Cabling: 7 semester hours.**
Physical aspects of computer network cable installation. Provides an understanding of industry standards and trends, routing and pulling cable, and cable testing. Lab-oriented course that stresses documentation, design, installation issues, and safety. Lecture/laboratory. 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 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 0215. 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 and ITS 0220. F, S

**ITS 0250 Computer Forensics: 3 semester hours.**
Use forensic software and techniques in recovering data, conducting data mining, and decrypting. Includes safe handling and preservation of original media, and finding hidden data. D

**ITS 0290 Internship: 1-8 semester hour.**
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 hour.**
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 hour.**
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
Law Enforcement

Faculty
Coordinator/Master Instructor
Edwards

(1 to 2 Years)

One Intermediate Technical Certificate, one Associate of Applied Science degree, and a Bachelor of Applied Technology degree are available.

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 Academy for the State of Idaho.

The Law Enforcement Training Program provides classroom, laboratory and cadet practicum instruction enabling students to enter the general field of law enforcement.

The Law Enforcement Program is designed to prepare graduates to enter the law enforcement field. The Law Enforcement Program has been duly approved by the Idaho Police Officers Standards and Training (POST) Council, thus eliminating the graduates’ need to attend the basic police academy before taking the certification exam. Because the Law Enforcement Program is driven by POST standards for certification into the law enforcement field, applicants to the program must meet POST standards for admission. These admission standards include 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 http://www.isu.edu/ctech/lawenforcement/.

Prerequisites for Entry into Program:

1. Must pass a background and driver’s license check.
2. Must pass an FBI fingerprint check.
3. Must pass a physical agility test.
4. Must pass a medical physical exam with checks for fitness, vision and hearing.
5. Must apply for Fall Semester by August 1st deadline.
6. 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.

Intermediate Technical Certificate: Law Enforcement

(1 Year)

Required Courses:

All courses must be completed with a minimum grade of “C-” to continue in the program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>LAWE 0170</td>
<td>Detention Procedures I</td>
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<tr>
<td>LAWE 0171</td>
<td>Cadet Practicum</td>
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</tr>
<tr>
<td>LAWE 0172</td>
<td>Health and Fitness</td>
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<tr>
<td>LAWE 0174</td>
<td>Human Relations</td>
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<tr>
<td>LAWE 0175</td>
<td>Health and Fitness II</td>
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<tr>
<td>LAWE 0176</td>
<td>Investigations I</td>
<td>3</td>
</tr>
<tr>
<td>LAWE 0177</td>
<td>Investigations II</td>
<td>3</td>
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<tr>
<td>LAWE 0178</td>
<td>Law I</td>
<td>3</td>
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<tr>
<td>LAWE 0179</td>
<td>Law II</td>
<td>3</td>
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<td>LAWE 0180</td>
<td>Patrol Procedures I</td>
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<tr>
<td>LAWE 0181</td>
<td>Patrol Procedures II</td>
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<td>LAWE 0182</td>
<td>Detention Procedures II</td>
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<td>LAWE 0183</td>
<td>Detention Procedures III</td>
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<td>LAWE 0188</td>
<td>Scenario Training</td>
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<td>LAWE 0200</td>
<td>Law Enforcement Internship I</td>
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<tr>
<td>LAWE 0201</td>
<td>Law Enforcement Internship II</td>
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</table>

Total Hours: 34

Associate of Applied Science Degree: Law Enforcement

(2 Years)

Required Courses:

All Law Enforcement courses must be completed with a minimum grade of “C-” to continue in the program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>LAWE 0170</td>
<td>Detention Procedures I</td>
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</tr>
<tr>
<td>LAWE 0171</td>
<td>Cadet Practicum</td>
<td>3</td>
</tr>
<tr>
<td>LAWE 0172</td>
<td>Health and Fitness</td>
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<tr>
<td>LAWE 0174</td>
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<td>LAWE 0176</td>
<td>Investigations I</td>
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<tr>
<td>LAWE 0177</td>
<td>Investigations II</td>
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<tr>
<td>LAWE 0178</td>
<td>Law I</td>
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<tr>
<td>LAWE 0179</td>
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<td>Detention Procedures III</td>
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Select two of the following: 6

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<td>BT 0170</td>
<td>Introduction to Computers</td>
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<tr>
<td>or INFO 1101</td>
<td>Digital Information Literacy</td>
<td></td>
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<tr>
<td>POLS 2248</td>
<td>Politics and the Administration of Justice</td>
<td></td>
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<tr>
<td>POLS 2249</td>
<td>Introduction to Criminal Law</td>
<td></td>
</tr>
<tr>
<td>PSYC 2200</td>
<td>Child Abuse</td>
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</tr>
<tr>
<td>SOC 2231</td>
<td>Juvenile Delinquency</td>
<td></td>
</tr>
</tbody>
</table>
Courses

LAWE 0170 Detention Procedures I: 3 semester hours.
This course is designed to teach officers the knowledge and skills necessary for
LAWE 0171 Cadet Practicum: 3 semester hours.
This course is designed to help the cadet put all skills and practical knowledge to
use in the working environment. The cadet rides with a full-time uniform police
officer within the department where they are evaluated, trained, and allowed to
put new skills and ideas into practice. The cadets do fifty (50) hours of patrol
time, fifty (50) hours of detention time, twenty-five (25) hours of dispatch time,
and twenty-five (25) hours of other time which may include directing traffic,
security, or crowd control at a specific event. F, S

LAWE 0172 Health and Fitness: 3 semester hours.
This course is a practical physical fitness program tailored to the specific
demands of the police profession. Lectures include nutrition, fitness lifestyles,
and health. A first aid course for police officers including cardio-pulmonary
resuscitation (CPR) is included in this series of instruction. F, S

LAWE 0174 Human Relations: 2 semester hours.
This course provides officers with better understanding of their roles in the
community and how the public responds to the police officer. Courses focus
on the abilities of the officer to communicate with the public in a professional
manner with respect to the task at hand. F, S

LAWE 0175 Health and Fitness II: 1 semester hour.
This course is a continuation of LAWE 0172. PREREQ: LAWE 0172. F, S

LAWE 0176 Investigations I: 3 semester hours.
A series of basic courses in preliminary investigations designed for the
initial officer responding to a crime scene. Introduction to scientific aids and
examinations, laboratory procedures, and the collection of evidence. Applications
of specific investigative techniques for specific offenses are studied. F, S

LAWE 0177 Investigations II: 3 semester hours.
This course is a continuation of LAWE 0176. PREREQ: LAWE 0176. F, S

LAWE 0178 Law I: 3 semester hours.
This course is an orientation to methods, practices, and procedures in Idaho
Criminal Law. Course work includes instruction in basic laws and powers derived
from the U.S. and Idaho Constitutions, classification of crimes, punishments, and
procedural law dealing with search and seizure and rules of evidence. F, S

LAWE 0179 Law II: 3 semester hours.
This course is a continuation of LAWE 0178. PREREQ: LAWE 0178. F, S

LAWE 0180 Patrol Procedures I: 3 semester hours.
This series of courses prepare the officers for patrol operations in their
communities. Varied facets of patrol procedures including the sensitive handling
of citizen crisis situation as well as the technical aspects of police patrol are
studied. Several courses have practical application sessions following classroom
instruction allowing the officer time to put new skills and ideas into practice. F, S

LAWE 0181 Patrol Procedures II: 3 semester hours.
This course is a continuation of LAWE 0180. PREREQ: LAWE 0180. F, S

LAWE 0182 Detention Procedures II: 1 semester hour.
Detection procedures relating to mental health, medical procedures, cross-gender
supervision, human relations, and hostage relations. PREREQ: LAWE 0170. S, Su

LAWE 0183 Detention Procedures III: 2 semester hours.
Topics include fire evacuation, security enveloping, cell searches, con games,
inmate supervision, use of force, transports, extrication, and gang awareness.
PREREQ: LAWE 0182. F, S

LAWE 0184 Patrol Procedures III: 1 semester hour.
Covers a study of crimes against property, crimes against persons, traffic stops,
family disturbances, and introduction to modern law enforcement. F, S, Su

LAWE 0188 Scenario Training: 1 semester hour.
Scenario-based problem solving and role playing to ensure the proper skills and
objectives have been learned to establish a successful career in law enforcement.
Graded S/U. F, S

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 hour.
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 hour.
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

1 INFO 1101 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.
3 Contributes to a General Education requirement.
Massage Therapy

Faculty
Coordinator/Advanced Instructor
Beck
Instructor
Gower

(1.5 to 2 Years)

One Intermediate Technical Certificate, one Associate of Applied Science degree, a Bachelor of Applied Technology degree, and a Bachelor of Science in Health Science degree are available.

The Massage Therapy Program provides classroom and laboratory experiences as well as onsite and offsite supervised practicum clinicals which prepare graduates to sit for the Federation of State Massage Licensing Boards’ Massage & Bodywork Licensing Exam or the National Certification Board for Therapeutic Massage and Bodyworks’ licensing exams. Each allows students to apply for the State of Idaho Massage License through the Idaho Bureau of Occupational Licenses.

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/massagetherapy/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.


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.

Intermediate Technical Certificate: Massage Therapy

(1.5 Years)
(705 clock hours)

Prerequisite Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
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</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4</td>
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<tr>
<td>MSTH 0100</td>
<td>Massage Therapy Career Exploration</td>
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Required Courses:

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<thead>
<tr>
<th>Course</th>
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<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3</td>
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<tr>
<td>MSTH 0104</td>
<td>Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>MSTH 0105</td>
<td>Principles of Therapeutic Massage</td>
<td>2</td>
</tr>
<tr>
<td>MSTH 0107</td>
<td>Professional Massage Techniques</td>
<td>6</td>
</tr>
<tr>
<td>MSTH 0121A</td>
<td>Massage Therapy Lab I</td>
<td>1</td>
</tr>
<tr>
<td>MSTH 0121B</td>
<td>Massage Therapy Lab II</td>
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Select 3 credits from the following courses:

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<tbody>
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<td>BT 0144</td>
<td>Document Processing</td>
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</tr>
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<td>BT 0170</td>
<td>Introduction to Computers</td>
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</tr>
<tr>
<td>BT 0171</td>
<td>Computerized Accounting</td>
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<td>HO 0107</td>
<td>Medical Law and Ethics</td>
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General Education courses

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<tr>
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Total Hours: 60

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 Degree: Massage Therapy

(2 Years)
(1168.5 clock hours)

Prerequisite Courses:

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<td>Massage Therapy Lab II</td>
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<td>MSTH 0140</td>
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<td>MSTH 0160</td>
<td>Advanced Therapeutic Massage Techniques</td>
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<td>Spa Techniques</td>
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<tr>
<td>MSTH 0203</td>
<td>Asian Bodywork Theory and Techniques</td>
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<td>MSTH 0205</td>
<td>Case Report Research Project</td>
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<td>MSTH 0210</td>
<td>Business Skills for Massage Therapy</td>
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<td>MSTH 0221</td>
<td>Massage Therapy Internship</td>
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<tr>
<td>BT 0120</td>
<td>Concepts of Accounting</td>
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</table>

Total Hours: 60

Intermediate Technical Certificate: Massage Therapy

ENTRY: FALL TOTAL LENGTH: 1.5 Years TOTAL CREDITS: 35 (705 clock hours)

Prerequisite Courses
**General Education and Other Requirements for AAS**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Hours</th>
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**Total Hours:** 8

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<td>Massage Therapy Career Lab II</td>
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**Total Hours:** 15

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**Technical Certificate Total Credit Hours:** 35 (705 clock hours)

**Associate of Applied Science: Massage Therapy**

**ENTRY:** FALL TOTAL LENGTH: 2 Years TOTAL CREDITS: 60 (1168.5 clock hours)

**Prerequisite Courses**

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**Total Hours:** 8

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**Associate of Applied Science: Massage Therapy**

**Prerequisite Courses**

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**Select 3 credits from the following:**

- BT 0120: Concepts of Accounting
- BT 0144: Document Processing
- BT 0170: Introduction to Computers
- BT 0171: Computerized Accounting
- HO 0107: Medical Law and Ethics

**AAS Degree Total Credit Hours:** 60 (1168.5 clock hours)

1 Select any Objective not previously applied.

Students may be required to complete prerequisite courses for English and Math. Transfer courses may be considered to meet course requirements.

**Courses**

**MSTH 0100 Massage Therapy Career Exploration:** 2 semester hours.

The importance of touch, human contact, and the roles they play in careers in touch. Participants gain recognition, education, and self analysis of massage therapy as a career. F, 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:** 2 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:** 1 semester hour.

Massage therapy treatment implementation utilizing assessment tools, evidence-based treatments, communication skills, and critical thinking skills for a selected client. 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). S
MSTH 0221 Massage Therapy Internship: 2 semester hours.
Students are supervised in an actual work environment performing massage therapy skills to gain work readiness skills. Required for Associates of Applied Science degree only. PREREQ: Previous semester course sequence (see Plan of Study). Su

MSTH 0296 Independent Study: 1-8 semester hour.
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 hour.
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
Medical Assisting

Faculty
Coordinator/Instructor
Terrell

Instructor
Carter

(2.5 Years)

One Associate of Applied Science degree, one Bachelor of Science in Health Science degree, and one Bachelor of Applied Technology degree are available.

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.

The Idaho State University College of Technology Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education 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.

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 classes must be completed with a grade of “C” or higher to progress to any clinical or externship course.

For a Program Information Packet showing descriptions of each option, course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://www.isu.edu/ctech/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.

Associate of Applied Science Degree: Medical Assisting

(2.5 Years)

Required Courses:
The following courses must be completed with a “C” or better in each course.

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>HIT 0209</td>
<td>CPT Coding</td>
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<td>Medical Terminology</td>
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<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3</td>
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<td>HO 0208</td>
<td>Introduction to Pathology</td>
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<td>HO 0209</td>
<td>Principles of Drugs and Their Uses</td>
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<td>MA 0104</td>
<td>Introduction to Medical Assisting Administrative</td>
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<td>MA 0200</td>
<td>Clinical Medical Assisting I</td>
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</tr>
<tr>
<td>MA 0202</td>
<td>Administration of Medications and Phlebotomy</td>
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<td>MA 0203</td>
<td>Computers in Medical Assisting Administrative</td>
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<td>MA 0204</td>
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</tr>
<tr>
<td>MA 0207</td>
<td>Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>MA 0208</td>
<td>Clinical Medical Assisting III</td>
<td>4</td>
</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 3301</td>
<td>Anatomy and Physiology</td>
<td>4</td>
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</tbody>
</table>
& 3301L    | Anatomy and Physiology Lab                   | 3       |
& BIO 3302  | Anatomy and Physiology                      | 4       |
& BIO 3302L | Anatomy and Physiology Lab                   | 3       |

General Education courses: 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I</td>
<td>4</td>
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& 1101L    | and Biology I Lab                          | 2       |
| MATH 1123  | Mathematics in Modern Society              | 3       |
| PSYC 1101  | Introduction to General Psychology         | 3       |

Additional General Education courses | 6

Total Hours: 74

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.

Contributes to a General Education requirement.

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 0206. 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 0209 Independent Study: 1-8 semester hour.
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 0209 Special Topics: 1-8 semester hour.
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 0209 Experimental Course: 1-6 semester hour.
Paralegal Studies

Faculty

Coordinator/Instructor

Huneycutt

(2 Years)

An Associate of Applied Science degree in Paralegal Studies and a Bachelor of Applied Technology degree are available.

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.

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/paralegal/.

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 is 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.

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. F

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. F

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. S

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

Additional General Education courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1101 Principles of Speech</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102 Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>
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. F, S

PARA 0121 Law Office Management: 3 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. F

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 0125 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. S

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. F

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: 4 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 hour.
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
Physical Therapist Assistant

Faculty
Coordinator/Master Instructor
Jernigan

Instructor
Lippiello

(2 Years)

An Associate of Applied Science degree, a Bachelor of Science in Health Science degree, and a Bachelor of Applied Technology degree are available.

Objectives
This program will provide students with the skills and knowledge to:

1. Be a part of the health care team that plans and implements a patient care program.
2. Under the supervision of a physical therapist, the PTA will carry out a treatment program that might include exercises for increasing strength, endurance, coordination and range of motion; the use of heat, cold, electricity, sound or water to relieve pain and stimulate muscle activity; instruction in safe physical activities and the use of devices such as walkers, crutches and wheelchairs.

The PTA graduate works with the Physical Therapist in performing rehabilitation interventions, patient assessments, as well as observing and reporting patient responses to treatment.

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.

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.

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/pta/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Associate of Applied Science Degree: Physical Therapist Assistant

(2 Years)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
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Additional General Education courses

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<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 3301 &amp; 3301L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>3</td>
</tr>
<tr>
<td>&amp; BIOL 3302 &amp; 3302L</td>
<td>and Anatomy and Physiology</td>
<td></td>
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<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3</td>
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<tr>
<td>or BIOL 3305</td>
<td>Introduction to Pathobiology</td>
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<tr>
<td>PTA 0104</td>
<td>Introduction to Kinesiology</td>
<td>2</td>
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<tr>
<td>PTA 0105</td>
<td>Introduction to Physical Therapy</td>
<td>1</td>
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<tr>
<td>PTA 0106</td>
<td>Applied Kinesiology</td>
<td>4</td>
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<tr>
<td>PTA 0107</td>
<td>Procedures I</td>
<td>5</td>
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<tr>
<td>PTA 0201</td>
<td>Procedures II</td>
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<tr>
<td>PTA 0202</td>
<td>Physical Therapy Assessment</td>
<td>4</td>
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<tr>
<td>PTA 0203</td>
<td>Therapeutic Exercise</td>
<td>5</td>
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<tr>
<td>PTA 0204</td>
<td>Seminar</td>
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<tr>
<td>PTA 0213</td>
<td>Clinical Affiliation I</td>
<td>7</td>
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<tr>
<td>PTA 0214</td>
<td>Clinical Affiliation II</td>
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General Education courses: 1

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<th>Title</th>
<th>Hours</th>
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<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
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<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
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Additional General Education courses: 2

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td></td>
<td></td>
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</table>

Total Hours 71

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.

Courses

PTA 0104 Introduction to Kinesiology: 2 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: 4 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 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 hour.
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 hour.
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
Practical Nursing

Faculty
Director/Assistant Professor
Pearce

Instructors
Bloom-Cosens
Briggs
Petersen
Scherer

Instructional Assistant
Krueger

(2 Years)

One Advanced Technical certificate is available. Graduates of this program who are Licensed Practical Nurses are eligible to apply to the Associate Degree Registered Nursing program.

Objectives
This program will provide students with the skills and knowledge to sit for the National Council Licensure Examination for Practical Nurses (NCLEX–PN). Graduates will provide care that requires practical nursing skill and knowledge. In health care facilities they will:

1. Provide bedside care.
2. Provide intravenous therapy, draw blood, assess vital signs, change dressings, administer most prescribed medications, and assist patients with personal care.
3. Assist physicians and registered nurses in implementing plans of care for patients.

Some graduates may work in specialized units, perform special nursing procedures, and operate sophisticated equipment.

The Practical Nursing Program provides classroom, laboratory, and student nurse practicum instruction that prepares graduates for entry into practical nursing.

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/pnur/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Advanced Technical Certificate: Practical Nursing

(2 Years)

Program Prerequisites
1. Certified Nursing Assistant (CNA) card
2. Current Health Care Provider CPR card
3. The following courses must be completed prior to starting the program:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
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<td>or INFO 1101</td>
<td>Digital Information Literacy</td>
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<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
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Select one of the following:

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4-8</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
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</tr>
<tr>
<td>&amp; 3301L</td>
<td>and Anatomy and Physiology Lab</td>
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<tr>
<td>&amp; BIOL 3302</td>
<td>Anatomy and Physiology</td>
<td></td>
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<tr>
<td>&amp; BIOL 3302L</td>
<td>and Anatomy and Physiology Lab</td>
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<tr>
<td>NTD 3340</td>
<td>Nutrition for Health Professionals</td>
<td>2-3</td>
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<tr>
<td>or PNR 0124</td>
<td>Nutrition and Diet Therapy for the Practical Nurse</td>
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<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
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Program Requirements:

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PNR 0110</td>
<td>Basic Foundations of Nursing</td>
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<tr>
<td>&amp; 0110L</td>
<td>and Basic Foundations of Nursing Lab</td>
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<tr>
<td>PNR 0112</td>
<td>Medical Surgical Nursing I</td>
<td>3</td>
</tr>
<tr>
<td>PNR 0113</td>
<td>Medication Administration for Practical Nursing</td>
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<tr>
<td>PNR 0114</td>
<td>Clinical Foundations of Nursing I</td>
<td>3</td>
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<td>PNR 0115</td>
<td>Professional Development Seminar</td>
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</tr>
<tr>
<td>PNR 0121</td>
<td>Clinical Foundations of Nursing II</td>
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<td>PNR 0123</td>
<td>Drug Therapy for the Practical Nurse</td>
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<td>Family Nursing for the Practical Nurse</td>
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<td>PNR 0126</td>
<td>Medical Surgical Nursing II</td>
<td>5</td>
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<tr>
<td>&amp; 0126L</td>
<td>and Medical Surgical Nursing Lab</td>
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<td>PNR 0131</td>
<td>Clinical Foundations of Nursing III</td>
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<td>PNR 0133</td>
<td>Intravenous Therapy for the Practical Nurse</td>
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<td>and Intravenous Therapy Lab for the Practical Nurse</td>
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<td>PNR 0137</td>
<td>Clinical Foundations of Nursing IV</td>
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<tr>
<td>PNR 0139</td>
<td>Nursing Care of Aged and Community-Based Populations</td>
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<tr>
<td>PNR 0140</td>
<td>Management for the Practical Nurse</td>
<td>2</td>
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</tbody>
</table>

Total Hours 53-58

1. INFO 1101 contributes to a General Education requirement.
2. Contributes to a General Education requirement.

Courses

**PNR 0110 Basic Foundations of Nursing: 3 semester hours.**
Principles of disease transmission, therapeutic communication, patient teaching/learning, medication administration, and the nursing process; basic clinical skills which provide the foundation for practical nursing. PREREQ: Admission to PNR Program. COREQ: PNR 0110L. F

**PNR 0110L Basic Foundations of Nursing Lab: 1 semester hour.**
Practical application of the nursing process and basic clinical skills which provide the foundation for nursing practice. COREQ: PNR 0110. F

**PNR 0112 Medical Surgical Nursing I: 3 semester hours.**
Principles of practical nursing care for the ill adult. COREQ: PNR 0110 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. F

PNUR 0114 Clinical Foundations of Nursing I: 3 semester hours.
Through hands-on clinical experience in a variety of settings the student practical nurse learns skills basic to practical 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 practical 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 Drug Therapy for the Practical Nurse: 3 semester hours.
Drugs and their actions as related to patient care in practical nursing practice. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0124 Nutrition and Diet Therapy for the Practical Nurse: 2 semester hours.
Basic nutrition principles and the application of diet therapy for health promotion. D

PNUR 0125 Family Nursing for the Practical Nurse: 5 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. S

PNUR 0126 Medical Surgical Nursing II: 4 semester hours.
Principles of practical nursing care for the ill adult. PREREQ or COREQ: PNUR 0112. COREQ: PNUR 0121 and PNUR 0126L. S

PNUR 0126L Medical Surgical Nursing Lab: 1 semester hour.
Practical application of medical surgical nursing interventions and procedures/skills within the practical nursing scope of practice. PREREQ or COREQ: PNUR 0112 or PNUR 0126. S

PNUR 0131 Clinical Foundations of Nursing III: 2 semester hours.
Theory and principles of practical 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 Nursing Care of Aged and Community-Based Populations: 3 semester hours.
Practical nursing concepts of normal and abnormal aging in the older adult and in community-based settings. Apply critical thinking and nursing process strategies within community-based settings. Su

PNUR 0140 Management for the Practical Nurse: 2 semester hours.
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 0137. Su

PNUR 0198 Special Topics: 1-8 semester hour.
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
Respiratory Therapy

Faculty
Coordinator/Instructor
Blakeman

Clinical Director/Instructor
(vacant)

(3 Years) Part-time program also available.

One Associate of Science degree and one Bachelor of Science in Health Science degree are available (see Health Occupations Department (p. 421) section). Immediately upon deciding this major, please contact the Student Services office of the College of Technology at (208) 282-2622.

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/respiratory/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

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:

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<th>Credit Hours</th>
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</thead>
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<tr>
<td>BIOL 2221 &amp; 2221L</td>
<td>Introductory Microbiology and Introductory Microbiology Laboratory</td>
<td>4</td>
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<tr>
<td>BIOL 3301 &amp; 3301L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry ^1</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab ^1</td>
<td>3</td>
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<td>COMM 1101</td>
<td>Principles of Speech ^1</td>
<td>3</td>
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<td>English Composition ^1</td>
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<td>Medical Terminology</td>
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<tr>
<td>or HCA 2210</td>
<td>Medical Terminology and Communication</td>
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<td>or HE 2210</td>
<td>Medical Terminology and Communication</td>
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<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology ^1</td>
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</table>

^1 Contributions to a General Education requirement.

Upon successful completion of the Respiratory Therapy Program, graduates are eligible to take the National Board for Respiratory Care (NBRC) entry-level examination to become Certified Respiratory Therapists (CRT). They would then be eligible, and are encouraged, to complete the NBRC advanced-level examination to become Registered Respiratory Therapists (RRT).

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.

Associate of Science Degree: Respiratory Therapy

(3 Years)

Additional General Education (p. 47) and Other Courses:

<table>
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<tr>
<th>Course Code</th>
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<td>4</td>
</tr>
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<td>BIOL 3302 &amp; 3302L</td>
<td>Anatomy and Physiology and Anatomy and Physiology Lab ^1</td>
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<td>Objective 4 (minimum 6 cr)</td>
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<td>One Objective 6 course with different prefix from that chosen earlier</td>
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<td>Objective 7 or 8</td>
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<td>Objective 9 (minimum 3 cr)</td>
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^1 If not taken prior to admission - both 3301 and 3302 are required.

Respiratory Therapy Courses

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<th>Credit Hours</th>
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<td>RESP 2211</td>
<td>Pharmacotherapy for Respiratory Therapists</td>
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<td>RESP 2214</td>
<td>Introduction to Pulmonary Disease</td>
<td>4</td>
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<tr>
<td>RESP 2231</td>
<td>Patient Assessment I</td>
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<td>RESP 2232</td>
<td>Patient Assessment II</td>
<td>2</td>
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<tr>
<td>RESP 2280</td>
<td>Case Management I</td>
<td>2</td>
</tr>
<tr>
<td>RESP 3301 &amp; 3301L</td>
<td>Mechanical Ventilators and Mechanical Ventilators Lab</td>
<td>4</td>
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<tr>
<td>RESP 3310</td>
<td>Case Management II</td>
<td>2</td>
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<tr>
<td>RESP 3320</td>
<td>Clinical Practice of Therapeutic Procedures I</td>
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<td>RESP 3325</td>
<td>Clinical Practice of Therapeutic Procedures II</td>
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<td>RESP 3330</td>
<td>Clinical Practice of Therapeutic Procedures III</td>
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<td>RESP 3335</td>
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<td>Total Hours</td>
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</table>
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 subacute settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 2231. F

RESP 2296 Independent Study: 1-8 semester hour.
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 hour.
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 Communication Systems Engineering Technology

Faculty
Coordinator/Instructor
Slack

Assistant professor
R. Norton

Master Instructor
Womack

Instructors
Call
L. Larson
Leishman
Shroll

(1.5 to 3 Years)

Two Advanced Technical Certificates, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

Objectives

Graduates of the Robotics and Communication 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. Continue to expand their knowledge and remain current in a continuously expanding industry.
3. Successfully integrate as productive team members in the electronics industry utilizing written, oral and electronic communications skills.
4. Develop, install, maintain, troubleshoot, and repair equipment and circuitry integrated in audio, video, communications, robotics, and pulse electronic systems.
5. Complete projects, produce project overviews with written and oral presentation components, and identify and address potential financial, ethical, and social concerns.

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.

Upon successful completion of RCET 0141, Applied Mathematics I, and RCET 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 as a prerequisite.

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 http://isu.edu/ctech/robotics/.

Advanced Technical Certificate: Laser/Electro-Optics Technology

(1.5 Years)

Required Courses:

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<th>Course Title</th>
<th>Hours</th>
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<td>Applied Mathematics I</td>
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<tr>
<td>RCET 0142</td>
<td>Applied Mathematics II</td>
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<tr>
<td>RCET 0153</td>
<td>Electronic Theory</td>
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<tr>
<td>RCET 0154</td>
<td>Electronic Control Devices Theory</td>
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<td>RCET 0155</td>
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<td>RCET 0156</td>
<td>Electronic Control Devices Lab</td>
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<tr>
<td>RCET 0251</td>
<td>Systems Analog and Digital Theory</td>
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<td>RCET 0253</td>
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<tr>
<td>RCET 0264</td>
<td>Introductory Calculus</td>
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<tr>
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<td>Laser Systems and Optics Theory</td>
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<td>English Composition Plus</td>
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<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
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<td>PHYS 1101</td>
<td>Elements of Physics</td>
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1. Contributes to a General Education requirement.


(3 Years)

Required Courses:

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<td>RCET 0371</td>
<td>Advanced Math for Electronics</td>
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<td>RCET 1372</td>
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<td>RCET 0373</td>
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1. Contributes to a General Education requirement.

**Associate of Applied Science Degree: Robotics and Communication Systems Engineering Technology**

*(3 Years)*

### Required Courses:

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<th>Course Title</th>
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<td>Advanced Math for Electronics</td>
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<td>RCET 1372</td>
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<td>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 0142 or equivalent. F, S</td>
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<td>RCET 0373</td>
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<td>5</td>
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<tr>
<td>RCET 0374</td>
<td>Advanced Pulse Theory</td>
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<td>RCET 0375</td>
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<td>RCET 0376</td>
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<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
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</table>

### General Education Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3</td>
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<tr>
<td>PHYS 1101</td>
<td>Elements of Physics</td>
<td>4</td>
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<tr>
<td>&amp; 1101L</td>
<td>Elements of Physics Laboratory</td>
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</table>

Total Hours: 110

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.

### Courses

**RCET 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. F, S

**RCET 0142 Applied Mathematics II: 4 semester hours.**

Continuation of RCET 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. PREREQ: RCET 0141, F, S

**RCET 0153 Electronic Theory: 5 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, AC-DC network analysis, and power supplies. COREQ: RCET 0141 and RCET 0155, F, S

**RCET 0154 Electronic Control Devices Theory: 5 semester hours.**

Comprehensive study of semiconductors, power supplies, transistor amplifiers, and operational amplifiers. Digital fundamentals including logic gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits. PREREQ: RCET 0141, RCET 0153, and RCET 0155. COREQ: RCET 0156 and RCET 0142, F, S

**RCET 0155 Electronic Lab: 5 semester hours.**

Experiments involving subjects covered in RCET 0153. Students will construct, measure, and analyze circuits. COREQ: RCET 0153, F, S

**RCET 0156 Electronic Control Devices Lab: 5 semester hours.**

Experiments involving subjects covered in RCET 0154. Students will construct, measure, and analyze circuits. PREREQ: RCET 0141, RCET 0153, and RCET 0155. COREQ: RCET 0154, F, S

**RCET 0251 Systems Analog and Digital Theory: 7 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 0156. 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 0142 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: 7 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 0270 Electronic Drafting: 2 semester hours.
Computer aided drafting with emphasis on schematic capture with component information systems and printed circuit board layout. 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 hour.
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 hour.
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 0331 Laser Systems and Optics Theory: 4 semester hours.

RCET 0332 Laser Systems and Optics Laboratory: 4 semester hours.
Practical application of theory and analysis in analyzing laser/optics systems. PREREQ: RCET 0331 and RCET 0332. D

RCET 0371 Advanced Math for Electronics: 4 semester hours.
The study of computer programming languages at the machine level, assembler level, and high level, a standard operating system, translation of numbers between number systems. F, S

RCET 0373 Advanced Digital Theory: 5 semester hours.
A study of microcomputer operation, programming, interfacing to digital and analog systems, and troubleshooting. Memory and storage systems. System microcontroller integration using a software development system. F, S

RCET 0374 Advanced Pulse Theory: 5 semester hours.
A study of analog/digital circuits used in the video studio. Introduction and analysis of a television studio system, modules, and individual analog/digital circuits will be covered. Discussion, lectures, classroom and lab demonstrations are used to help the student gain knowledge and troubleshoot equipment in large system. COREQ: RCET 0376. F, S

RCET 0375 Advanced Digital Laboratory: 5 semester hours.
Practical application of topics covered in RCET 0371 and RCET 0373 while building, programming, and troubleshooting microprocessor and microcontroller-based systems. F, S

RCET 0376 Advanced Pulse Laboratory: 5 semester hours.
Practical equipment and systems application of analog/digital circuits used in conjunction with Advanced Pulse Theory (RCET 0374). Operation of the lab is by an exploratory method with guides furnished by the instructor. Test results of these explorations will be maintained in written log form and will be presented in verbal form to other student technicians. One major student project is accomplished during the semester. The student must give an oral and written presentation on the project. COREQ: RCET 0374. F, S

RCET 0383 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: RCET 0331 and RCET 0332. D

RCET 0384 Advanced Laser Systems and Optics Laboratory: 3 semester hours.
Practical application of advanced theory and analysis in analyzing laser/optics systems. PREREQ: RCET 0331 and RCET 0332. 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
Surveying and Geomatics Engineering Technology

Faculty
Coordinator/Professor
Bajracharya
Assistant Professor
Liimakka

A Bachelor of Science degree in Surveying and Geomatics Engineering Technology is available.

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. Possess the ability to execute surveying/geomatics project activities for delivery in response to the need 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. Be qualified to take the national exam in Fundamentals of Surveying and, after gaining experience, be qualified to take the Professional Surveying License Exams with an understanding of continued lifelong learning.

5. Understand professional, ethical, and social issues with commitment to quality and dependability.

For a list of course sequences, cost of books, tools, uniforms, fees, and other expenses, go online to http://www.isu.edu/ctech/geomatics/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

Bachelor of Science Degree: Surveying and Geomatics Engineering Technology

The following courses are required for a Bachelor of Science degree.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CET 0226/GEMT 2226</td>
<td>Construction Surveying</td>
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<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
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<tr>
<td>GEMT 3310</td>
<td>Surveying Law and Boundary Descriptions</td>
<td>3</td>
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<tr>
<td>GEMT 3311</td>
<td>Advanced Surveying</td>
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</tr>
<tr>
<td>GEMT 3312</td>
<td>Public Land Surveying</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 3313</td>
<td>Surveying Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 3314</td>
<td>Research and Evidence in Surveying</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 3315</td>
<td>Surveying Adjustments and Coordinate Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 3317</td>
<td>Subdivision Planning and Platting</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 4411</td>
<td>Geodesy</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 4415</td>
<td>Survey Office Practice</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 4416</td>
<td>Surveying Project</td>
<td>3</td>
</tr>
<tr>
<td>GEMT 4430</td>
<td>GPS Principles and Applications</td>
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<td>MATH 1147</td>
<td>Precalculus</td>
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</table>

Complete either these two courses:
- MATH 1170 | Calculus I | 3 |
- MATH 1175 | Calculus II | 3 |

OR these two courses:
- RCET 0264 | Introductory Calculus | 3 |
- RCET 1372 | Calculus for Advanced Electronics | 3 |

Select ONE of the following:
- GEMT 4432 | Principles of Photogrammetry | 3 |
- GEOL 4409 | Remote Sensing | 3 |

Select ONE of the following:
- GEMT 4425 | Principles of Cartography | 3 |
- GEOL 4404 | Advanced Geographic Information Systems | 3 |
- HIST 4490 | Cartography History and Design | 3 |

Select ONE of the following:
- GEMT 4413 | Land Information System | 3 |
- GEOL 4403 | Principles of Geographic Information Systems & 4403L and Principles of GIS Laboratory | 3 |
- HIST 4489 | GIS for Social Sciences | 3 |

General Education Requirements

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<tr>
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<tr>
<td>COMM 1101</td>
<td>Principles of Speech (Satisfies Objective 2)</td>
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<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3</td>
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<tr>
<td>or ENGL 1101P</td>
<td>English Composition Plus</td>
<td>3</td>
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<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing (Satisfies Objective 1)</td>
<td>3</td>
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<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics (Satisfies Objective 3)</td>
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<tr>
<td>PHYS 1101 &amp; 1101L</td>
<td>Elements of Physics and Elements of Physics Laboratory (Partially satisfies Objective 5)</td>
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<tr>
<td>HIST 1118</td>
<td>US History and Culture (Satisfies Objective 7)</td>
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<tr>
<td>ECON 1100</td>
<td>Economic Issues (Each of these 3 courses partially satisfy Objective 6)</td>
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<tr>
<td>or ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1103</td>
<td>Introduction to Ethics (Partially satisfies Objective 4)</td>
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</table>
**Courses**

**GEMT 1111 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, isoview text; hatching; dimensioning; multiview and layout. Equivalent to CET 0111. F

**GEMT 1112 Beginning Surveying: 5 semester hours.**
Introduction to surveying. Theory and field work using equipment in the areas of measuring (taping, chaining, using hand levels), leveling (differential and profile), theodolites and total stations. Field projects include alignment and profile, closed traverse, and introduction to survey coordinate geometry applications. Equivalent to CET 0112. F

**GEMT 1121 Civil Engineering Technology Drafting: 3 semester hours.**
Civil Engineering Technology drafting, municipal and rural maps and drawings, drainage applications, plan and profile drawings, cross-sections, earthwork plats, legal descriptions, contour, quantity calculations, and other details relating to pertinent civil engineering technology drawings. Computer-aided-drafting (CAD) is used for drawings. Equivalent to CET 0121. PRE-REQ: CET/GEMT 1111. S

**GEMT 1122 Intermediate Surveying: 5 semester hours.**
Study of survey of land, traverses and closures, bearings, coordinates, and construction surveying and staking. Control for surveys, topography surveying and mapping using calculators and coordinate geometry (COGO) to solve surveying problems. Introduction to data collection. Produce survey drawings with TDS COGO. Equivalent to CET 0122. PRE-REQ: CET 0112. S

**GEMT 2216 Route Survey and Design: 6 semester hours.**
Study of route surveying; circular, spiral, and parabolic curves as applied to highway design; route locations, plan, and specifications. Plans will be drawn with plotters using CAD and survey/engineering software. Equivalent to CET 0216. PRE-REQ: CET 0122/GEMT 1122. F

**GEMT 2226 Construction Surveying: 6 semester hours.**

**GEMT 2296 Independent Study: 1-8 semester hour.**
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. PRE-REQ: Permission of the instructor. D

**GEMT 2298 Special Topics: 1-8 semester hour.**
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. PRE-REQ: Permission of instructor. D

**GEMT 3310 Surveying Law and Boundary Descriptions: 3 semester hours.**
Riparian and littoral rights, ownership transfer and writing of legal description, boundary law, presumptions, easements and reversions, sequential and simultaneous conveyances, case studies, brief history of public land surveys, state laws, rules for practicing surveying, ALTA survey. PRE-REQ: GEMT junior status or permission of instructor. D

**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. PRE-REQ: CET 0226/GEMT 2226 or permission of instructor. F

**GEMT 3312 Public Land Surveying: 3 semester hours.**

**GEMT 3313 Surveying Software Applications: 3 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. PRE-REQ: CET 0226/GEMT 2226 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. PRE-REQ: CET 0226/GEMT 2226. 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. PRE-REQ: MATH 1170, MATH 1153 and CET 0226/GEMT 2226. S

**GEMT 3317 Subdivision Planning and Platting: 3 semester hours.**
Land use planning; governmental regulations and permits as applied to subdivisions; subdivision planning, computations and preparation of subdivision plats. PRE-REQ: GEMT 2226. PRE-or-COREQ: GEMT 3313. 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. PRE-REQ: 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. PRE-REQ: 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. PRE-REQ: GEMT 2226 and 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. PRE-REQ: 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. PRE-REQ: 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/GEMT 2226 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/GEMT 2226 or permission of instructor. S

GEMT 4496 Independent Study: 1-8 semester hour.
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 hour.
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
Welding

Faculty
Coordinator/Master Instructor
Humpherys

Advanced Instructors
Bloxham
D. Erickson

Emeriti
Rost

(1 to 2 Years)

One Intermediate Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree and a Bachelor of Applied Technology degree are available.

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.

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/welding/.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook. Students must pass each welding core course with a letter grade of no less than a C (2.0) before continuing in the program.

Intermediate Technical Certificate: Welder General

(1 Year)

Required Courses:

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<td>WELD 0132</td>
<td>Welding Practice II</td>
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<td>WELD 0140</td>
<td>Welding Theory</td>
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<tr>
<td>WELD 0141</td>
<td>Mechanical Drawing</td>
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<td>WELD 0143</td>
<td>Shop Math I</td>
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Total Hours: 32

Advanced Technical Certificate: Welder-Fitter

(2 Years)

Required Courses:

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<td>Welding Practice I</td>
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<tr>
<td>WELD 0132</td>
<td>Welding Practice II</td>
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<tr>
<td>WELD 0140</td>
<td>Welding Theory</td>
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<td>WELD 0141</td>
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<tr>
<td>WELD 0142</td>
<td>Blueprint Reading</td>
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<td>WELD 0143</td>
<td>Shop Math I</td>
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<tr>
<td>WELD 0231</td>
<td>Welding Practice III</td>
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<td>WELD 0232</td>
<td>Welding Practice IV</td>
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<tr>
<td>WELD 0241</td>
<td>Metal Layout</td>
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<tr>
<td>WELD 0243</td>
<td>Shop Math II</td>
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Total Hours: 64

Associate of Applied Science Degree: Welder-Fitter

(2 Years)

Required Courses:

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<td>WELD 0132</td>
<td>Welding Practice II</td>
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<td>WELD 0140</td>
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<td>WELD 0231</td>
<td>Welding Practice III</td>
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<td>Welding Practice IV</td>
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<td>Metal Layout</td>
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General Education courses: 1

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Additional General Education courses 12

Total Hours: 79

Elective Course:

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<tbody>
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Courses

WELD 0105 Welding: 1-4 semester hour.
Introduction to and practice of arc welding. Metals and various types of welds. F, S

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 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.
Processing and manufacturing of ferrous and nonferrous metals; effect welding has on different metals, how to weld them and the heat treatment of them. 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: 2 semester hours.
Study of trades symbols, dimensioning from working drawings of the trade. Identification of lines, views, materials and dimensions; study of basic drawings of welding trade. 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 hour.
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 hour.
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 hour.
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
General Education Department

Faculty
Chair
Rhoads

Coordinator/Senior Instructor
Lambert

Master Instructor
Barclay

Instructors
Allen
G. Bennett
Clarke
Frandsen
M. Wilson
(vacant)

Emeriti
Eilander
Pein

One semester emphasizing Technical General Education Basic coursework is incorporated into each program curriculum for students who do not demonstrate adequate academic skill to succeed in the occupational content courses of their programs. These students enroll for 0-16 credits of Technical General Education (TGE) basic courses prior to placement in their occupational-based curriculum. Students demonstrating academic proficiency in math and written communications will bypass this section of the curriculum.

Technical General Education core course content is designed in accordance with suggestions and directions from program instructors, advisory committees, and industry employers. TGE core coursework complements the student’s technical training by providing education in business writing and oral communication, building job search skills, ethics in technology and understanding human relations issues pertinent to the workplace.

Technical General Education core courses are taken concurrently with the student’s program courses and may be required 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 core courses must be taken.

For online information about this department and its programs, visit http://isu.edu/cotgened/tge-main.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

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: TGE 0100M or MATH 0015. D

**TGE 0100C Critical Thinking: 3 semester hours.**
Course teaches creative and critical thinking. This is an integrated approach that deals with thinking about thinking, imagining, and solving problems. Informal logic, induction, deduction, and prose analysis are emphasized. D

**TGE 0100I Independent Study: 1-2 semester hour.**
Course is designed to meet individual student needs. D

**TGE 0100M Math: 4 semester hours.**
Course provides an overview of complex fractions, decimals, and percents with an emphasis on practical application. Equivalent to MATH 0015. Not eligible for academic credit. Pre-or-Coreq: TGE 0100S. D

**TGE 0100P Personal and Professional Effectiveness: 1-2 semester hour.**
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 0100R Reading: 3 semester hours.**
Provides instruction in reading speed, comprehension, and textual interpretation, as well as on analysis of the basic grammatical and syntactic principles of the English language. Competence in decoding, listening skills, and active reading proficiency are primary objectives. COREQ: TGE 0100W. D

**TGE 0100S Strategies for Learning: 2 semester hours.**
Memory skills, time management, critical thinking, learning styles, note and test taking strategies, and use of technology in successful completion of programs. Credit not applicable toward degree or certificate. D

**TGE 0100T Technical Science: 2 semester hours.**
Course provides instruction in the development of basic mathematical relationships and their use in the study of forces and force analogs in fluid, thermal, electrical, and mechanical systems. Force, work, power, rate, and resistance are studied. Basic trigonometric relationships are defined. D

**TGE 0100W Writing: 3 semester hours.**
Clear writing in standard, edited American English. Equivalent to ENGL 0090. Not eligible for academic credit. PRE-or-COREQ: TGE 0100S. D

**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 0151 Technical Writing I: 2 semester hours.**
Course provides instruction in informal technical report writing and business correspondence. Includes grammar/punctuation review, introduction to word processing, and technical terminology/vocabulary building. D

**TGE 0152 Technical Writing II: 2 semester hours.**
Course provides instruction in application of formal technical report writing strategies and fundamentals of research. D

**TGE 0158 Employment Strategies: 1-2 semester hour.**
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 0162 Orientation to Computer Technology: 1 semester hour.
Use of instructor software (Moodle) and on-line library services, Internet
research, use of Bengal web and e-mail services. Overview of basic word
processing features and the development of alphabetic and numeric information
input through touch keyboarding. Open exit is available when student reaches
proficiency rate established by program area. F, S

TGE 0199 Experimental Course: 1-6 semester hour.
This is an experimental course. The course title and number of credits are
announced in the class schedule by the scheduling department. Experimental
courses may be offered no more than three times with the same title and content

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
Adult Basic Education

Faculty
Coordinator
Miller

Instruction Coordinators
Hopwood
Watts
(208) 282-2468
http://isu.edu/cotgened/abe-main.shtml

The program offers free assistance for people 16 and older with academic and English language deficiencies who are not enrolled in K-12. Services are provided at the Adult Success Center on the third floor of the Roy F. Christensen Building (Building #48) in Pocatello as well as sites in American Falls, Blackfoot, Preston, Montpelier, Shelley, and Soda Springs. ABE serves the seven counties of Bannock, Bear Lake, Bingham, Caribou, Franklin, Oneida and Power.

Adult Basic Education (ABE) -- This service provides assessment and instruction in basic math, reading, and writing to assist people with their educational or employment goals. Students may prepare for the COMPASS test and transition to college. The program offers different settings and methods to help students learn at their own rate in the style they prefer. Instruction includes both classes and independent study using books, audio and video materials, tutors, and computers.

General Educational Development (GED®) -- This service assists people who have not received a high school diploma. The GED® is offered at Idaho State University's Testing Center and a GED® commencement ceremony is held every spring on the Idaho State University campus.

English as a Second Language (ESL) -- This service helps speakers of other languages learn to speak, understand, read, and write English. It offers instruction in the English needed for daily life in the United States and includes skills useful for education, employment, residency, and citizenship. Both formal grammar lessons and instruction in the social uses of language are emphasized.

Center for New Directions

Faculty
Assistant Director
D. Norton

Counselors
Darling
D. Norton
Wade
(208) 282-2454
Email: cnd@isu.edu
http://www.isu.edu/cnd/

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. All services are confidential and provided at no cost. Contact the CND for information about services on the Pocatello campus and at Idaho State University centers located in Blackfoot, Montpelier, Preston, and Soda Springs.

Student Resource Center

Coordinator: Byington
(208) 282-3208
http://isu.edu/cotgened/resource-main.shtml

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 lab with an instructor is available one day a week.

The Resource Center encourages students to seek help at the beginning of each academic semester to ensure success.
Workforce Training

Faculty

Director
Hough

Assistant Director
Hayes

College of Technology
Continuing Education Building
1001 N 7th Avenue, Stop 8076
Pocatello, ID 83209-8076
(208) 282-3372
cetrain.isu.edu

Class offerings include specialized vocational courses during non-traditional hours, customized training for business and industry, and webinars and classes broadcast on the Idaho Education Network. Classes (including short-term workshops) are offered both on and off campus during afternoons, weekdays, evenings, and Saturdays. The purpose of open-enrollment classes is to offer training and/or retraining for persons who have already entered the labor market and who desire to achieve stability or advancement in gainful employment.

Customized courses are offered to assist local industry with expansion of the workforce and upgrading and retraining of their current employees. Instruction may include laboratory, shop and related classroom instruction appropriate for the specific group being served.

Open enrollment offerings are announced each semester through the press, radio, and special bulletins. More than 500 courses ranging in length from one week to two years are offered and start at varying times throughout the year.

Classes in the following general areas are offered each year:

Agriculture
Automotive Trades
Business Management
Computers
Drafting
Electronics
Electrical
Health
Home Economics
Office Practices
Production Management
Real Estate
Related Industrial
Welding

Customized courses are offered at the request of a specific business. Curriculum is designed to meet the need of employees and is offered either on campus or on site at the business. Classes can also be offered through distance learning classroom and via the Internet. Federal financial aid is not applicable to these courses.

Because of the constant demand for short-term courses, people are encouraged to register for classes as early as possible. Persons interested in enrolling in any of these offerings may contact WORKFORCE TRAINING. Federal financial aid is not applicable to this program.

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 Idaho Department of Labor and Industrial Services. Call WORKFORCE TRAINING at (208) 282-3372. Federal Financial Aid is not applicable to 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 earlier in this ISU Undergraduate Catalog, the following Electrical Apprenticeship credits will be posted to the ISU transcript upon payment of a credit recording fee of $15 per credit (see Expenses (p. 8) in the General Information section of the ISU Undergraduate Catalog).

General Education:
See General Education Requirements (minimum 15 credits) for A.A.S. Degree at the start of the College of Technology section of the catalog.

Required Courses:

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>ELAP 0100</td>
<td>Electrical Internship Year 1</td>
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<td>ELAP 0101</td>
<td>Electrical Theory Year 1</td>
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<td>ELAP 0150</td>
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<td>ELAP 0201</td>
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<tr>
<td><strong>Total Hours</strong></td>
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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. Contact WORKFORCE TRAINING at (208) 282-3372.

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 earlier in this ISU Undergraduate Catalog, the following Plumbing Apprenticeship credits will be posted to the ISU transcript upon payment of a credit recording fee of $15 per credit (see Expenses (p. 8) in the General Information section of the ISU Undergraduate Catalog).

General Education:
See General Education Requirements (p. 372) (minimum 15 credits) for AAS degree at the start of the College of Technology section of the catalog.
### Required Courses:

<table>
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<td>PLAP 0100</td>
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<td>PLAP 0251</td>
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</table>

Total Hours 52
Southeast Idaho Region 5 Tech Prep

Faculty
Coordinator
Putnam

Southeast Idaho Region 5 Tech Prep
921 S 8th Ave Stop 8380
Pocatello ID 83209-8380
(208) 282-4663
http://www.isu.edu/techprep/

Tech Prep is a national and state effort which emphasizes collaboration between high schools and Idaho technical colleges while preparing students for entry into the workforce. Students enrolled in approved high school programs may articulate post-secondary credit toward technical or professional degrees. Students must complete their approved high school course with a minimum grade of 80% in order to transcript college credit. This process allows students to begin working on an Associate of Applied Science (A.A.S.) degree or a certificate while still in high school. The A.A.S. degree articulates into Idaho State University’s Bachelor of Applied Technology degree.

Up to eight (8) professional/technical credits earned through the Tech Prep articulation agreements while in high school may be used to fulfill academic elective requirements when students are pursuing a Bachelor of Science or Bachelor of Arts degree.

A Tech Prep student can earn a degree in less time or go into greater depth of study at the college level. In Region V, 19 high schools have articulation agreements with Idaho State University.

The Tech Prep office provides support services designed to assist high school students to articulate college credits while in high school. Students are encouraged to contact the Tech Prep office for further information.
Asterisks denote members of the Graduate Faculty.

**Abraszewski, Lee.** Clinical Assistant Professor, Pocatello Family Medicine Clinic. B.B.A. 1987, M.S. 1992, University of Texas; Nurse Practitioner 2003, St. Louis University. (2007)


**Agado, Brooke E.** Assistant Professor, Dental Hygiene. RDH, B.S. 2002, Idaho State University. (2005)

**Aho, Ken A.** Assistant Professor, Biological Sciences. B.S. 1996, Idaho State University; M.S. 2007, Ph.D. 2006, Montana State University. (2007)


**Altieri, Nicholas.** Assistant Professor, Communication Sciences and Disorders. B.A. 2005, The Ohio University; M.S. 2010, Ph.D. 2010, Indiana University. (2012)

**Ament, Robin.** Clinical Assistant Professor, Communication Sciences and Disorders. B.A. 1985, Brigham Young University; M.A. 1993, University of Colorado. (2010)

**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)


**Anderson, Terro.** Instructor, Electrical Engineering Technology. B.S. 2006, Idaho State University. (2011)


**Arvidson, Cathy Ruth.** Associate Professor, Nursing. B.S.N. 1978, Vanderbilt; M.S.N. 1981, University of Florida; Ph.D. 1990, Texas Women’s University; FNP 1995, University of Wisconsin Oshkosh. (1992)

**Attebery, Brian L.** Professor, English; Adjunct Faculty, Music. B.A. 1974, College of Idaho; M.A. 1976, Ph.D. 1979, Brown University. (1982)

**Attebery, Jennifer E.** Department Chair and Professor, English and Philosophy, Director, Folklore Program. B.A. 1973, College of Idaho; M.A. 1974, Ph.D. 1985, Indiana University. (1990)

**Aubrey, Debra Larsen.** Research Associate Professor, Institute of Rural Health. B.S. 1990, Brigham Young University; M.S. 1993, Ph.D. 2002, Idaho State University. (1998)

**Austin, Kristi.** Reference Librarian (equivalent rank, Assistant Professor), Library. B.A. 1983, University of Washington; M.L.S. 2002, Emporia State University. (1995)

**Austin, Mark C.** Department Chair and Professor, Biological Sciences. B.S. 1981, Pennsylvania State University; Ph.D. 1988, Washington State University. (2012)

**Baergen, Ralph.** Professor, Philosophy; Chair, Human Subjects Committee, Office of Research. B.A. 1983, University of Manitoba; M.A. 1989, Ph.D. 1990, Syracuse University. (1994)


**Barclay, Bryan.** Senior Instructor, General Education. B.S. 1980, Brigham Young University; M.S. 1987, University of Washington; Ph.D. 2001, Utah State University. (1999)

**Bargen, Gabriel.** Assistant Professor, Communication Sciences and Disorders. B.S. 2000, Texas Christian University; M.S.E. 2002, University of Nebraska at Kearney; M.A. 2006, University of Kansas Medical Center; Ph.D. 2010, University of Kansas. (2010)

**Basset, Tamra A.** Assistant Lecturer, Languages and Literatures.


**Beachboard, Martine Robinson.** Associate Professor, Communication, Media, and Persuasion. B.S. 1976, Northern Arizona University; B.A. 1990, University of Maryland; M.S. 1995, M.A. 1996, Syracuse University; Ph.D. 2008, Touro University International. (2001)


Bearden, Shawn E.,* Director, Biomedical Research Institute; Associate Professor, Biological Sciences. B.S. 1994, University of Virginia; M.S. 1996, George Mason University; Ph.D. 2000, Florida State University. (2005)

Bea, Lawrence H., Department Chair and Executive Director, Energy Systems Engineering Technology. (2006)


Benedetti, JoAnn, Instructor, Practical Nursing.

Bennett, Byron L.,* Assistant Professor, Chemistry. B.A. 1989, Cedarville College; Ph.D. 1997, University of Wyoming. (2007)


Benson Jr., Charles Scott,* Professor, Economics. B.A. 1972, University of California, Berkeley; M.A. 1979, Ph.D. 1988, University of California, Davis. (1986)

Beran, Mary Lou, Database Manager, Library (equivalent rank, Professor). B.S. 1963, Mankato State College; M.Libr. 1968, University of Washington. (1968)


Bezik, Mark, Assistant Professor, Accounting. B.B.A. 1974, Cleveland State University; M.B.A. 1978, Case Western Reserve University. (1999)


Bigelow, James,* Associate Professor, Biomedical and Pharmaceutical Sciences. B.S. 1979, University of Illinois at Urbana-Champaign; Ph.D. 1985, Indiana University at Bloomington. (2004)

Biorn, Camille, Clinical Assistant Professor, Dental Hygiene. B.S. 1997, Idaho State University. (2001)


Black, Catherine, Associate Lecturer, Biological Sciences. B.A. 1991, University of Utah; M.S. 1996, Idaho State University. (1998)


Blanton, Cynthia A.,* Assistant Professor, Health and Nutrition Sciences. B.S. 1990, California State University, Northridge; Ph.D. 2000, University of California, Davis. (2007)


Blume, Jim, Instructor, Information Technology Systems.

Bokelman, Jean, Clinical Associate Professor, Family Medicine Residency Program. A.B. 1975, Stanford University; M.D. 1980, Case Western Reserve University. (1992)


Borzadek, Eliza, Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences; Clinical Assistant Professor, Clinical Research Center; Clinical Assistant Professor, Pocatello Family Medicine Clinic. PharmD 2004, Idaho State University (2006)


Bottenberg, Carrie, Assistant Lecturer, Geosciences.


Brey, Richard R.,* Department Chair and Professor, Nuclear Engineering and Health Physics. B.S. 1988, M.S. 1990, Ph.D. 1994, Purdue University. (1994)


Brown, Anna, Assistant Professor, Accounting. B.A. 2005, Wesleyan University; M.B.A. 2009, Baruch College; M. Phil. Accounting 2012, Baruch College; Ph.D. 2014 Baruch College. (2014)
Brumley, Michele R.,* Assistant Professor, Psychology. B.A. 1999, DePaul University; Ph.D. 2005, University of Iowa. (2007)


Burgett, Eric, Director of Research Innovation in Science and Engineering and Associate Professor, Nuclear Engineering and Health Physics.

Burton, Leonora D., Instructor, Adult Basic Education. B.S. 1993, Utah State University. (1999)


Calderon, Hector. Visiting Assistant Professor, Physics.


Calley, Kristin H.,* Chair and Associate Professor, Dental Hygiene. B.S. 1988, Idaho State University; M.S. 1993, Old Dominion University. (1992)

Callinan, Brigid. Acting Coordinator and Instructor, Culinary Arts. B.A., University of Idaho.


Cashmore, Catherine A.,* Associate Dean, College of Pharmacy; Associate Professor, Pharmacy Practice and Administrative Sciences; Assistant Director, Nontraditional PharmD Program; Assistant Director, Idaho Drug Information Service. B.S. 1980, University of California San Diego; M.S. 1984, West Virginia University; Pharm.D. 1993, Idaho State University. (1994)


Castle, Lyle W.,* Dean, Academic Programs, Idaho State University-Idaho Falls; Professor, Chemistry. B.S. 1985, Southern Utah State College; M.S. 1988, University of Nebraska; Ph.D. 1992, University of Florida. (1994)

Chen, Shu-Chuan. Associate Professor, Mathematics. B.S. 1994, National Chung-Hsing University, Taiwan; M.S. 1996, National DongHwa University, Taiwan; Ph.D. Pennsylvania State University. (2012)


Chouffani el Fassi, Khalid,* Research Associate Professor, Idaho Accelerator Center. B.S. 1987, École Nationale Supérieure de Physique de Marseille, France; M.S. 1988, Université de Saint Jérôme Marseille; M.S. 1992, Ph.D. 1995, Catholic University of America. (2001)


Christensen, Kay M., Associate Vice President, Academic Programs and Student Success. B.S. 1977, University of Utah; J.D. 1984, University of Idaho. (1997)


Cleveland, Kevin W., Associate Professor, Pharmacy Practice and Administrative Sciences; Curriculum Coordinator, Nontraditional PharmD Program; Director, Idaho Drug Information Service. Pharm.D. 2002, Idaho State University. (2004)

Coffland, David A.,* Associate Professor, Educational Leadership and Instructional Design. B.S. 1984, Virginia Polytechnic Institute; B.S. 1986,


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; M.D. 1985, Chicago - College of Dentistry; General Practice Residency in Dentistry Certificate 1985, Naval Hospital Bethesda. (2005)

Cree, Jonathan, Department Chair, Residency Director and Clinical Professor (non-classified), Family Medicine Residency Program. M.A. 1971, Oxford University; M.D. 1973, Oxford University and St. Thomas’ Hospital Medical School. (1996)

Creelman III, James E.*, Department Chair and Associate Professor, Physical and Occupational Therapy. B.S. 1971, U.S. Naval Academy; B.S. 1982, University of Maryland; M.S. 1997, Idaho State University. (1990)


Culbertson, Vaughn L.*, Director of Nontraditional Programs, NonTraditional PharmD Program; Professor, Pharmacy Practice and Administrative Sciences. B.S. 1971, University of Nebraska, Lincoln; Pharm.D. 1981, University of - Nebraska Medical Center, Omaha. (1989)


Davis, Gina, Clinical Pharmacist, Student Health Pharmacy; Clinical Assistant Professor, Pharmacy Practice and Administrative Sciences. PharmD. 1993, Idaho State University. (2008)

Davis, Todd A.*, Associate Professor, Chemistry. B.S. 2000, Grand Valley State University; Ph.D. 2004, Texas Tech University. (2007)

De Jesus, Karl.*, Department Chair and Professor, Chemistry. B.S. 1977, Texas Christian University; Ph.D. 1986, University of Wisconsin, Madison. (1994)

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)


Denner, Peter R.*, Associate Dean, College of Education; Professor, Educational Foundations. B.A. 1973, University of New Hampshire; M.S. 1975, Ph.D. 1981, Purdue University. (1982)


Devine, Nancy L.*, Associate Dean, Director, and Associate Professor, School of Rehabilitation and Communication Sciences. Associate Professor, Physical and Occupational Therapy. B.S. 1986, University of Vermont; M.S. 1993, Idaho State University. (1990)

Dickey, John, Humanities Director (non-classified; equivalent rank, Associate Professor), Family Medicine Residency Program. B.A. 1971, University of Wisconsin; M.S. 1975, Idaho State University; Ph.D. 1982, Wayne State University. (1997)


Dienstfrey, Sherri R.*, Professor, Theatre and Dance. B.S. 1977, University of Nebraska at Lincoln; M.A. 1980, North Dakota State University; Ph.D. 1986, Kent State University. (1987)


Downing, Mary Elizabeth, Government Documents Librarian (equivalent rank, Assistant Professor); Assistant Lecturer, Eli M. Oboler Library. B.A. 1983, Maryville College; M.S.L.S. 1985, University of North Carolina. (2004)


Dye, Deanna.* Assistant Professor, Physical and Occupational Therapy. B.S. 1990, Boston University; M.A. 2000, University of Wyoming; Ph.D. 2007, University of Idaho. (2002)

Dyer, Donald A., Obstetrics Coordinator (non-classified; equivalent rank, Clinical Associate Professor), Family Practice Residency Program. B.S. 1968, Memphis State University; M.D. 1972, University of Tennessee. (2001)

Earles, Randy A.,* Associate Dean of Fine Arts and Humanities; Professor, Music. B. Mus. 1974, M. Mus. 1976, University of Houston; D.M.A. 1991, University of Oklahoma. (1991)


Ellis, Kimberlee A., Clinical Associate Professor, Dental Hygiene. B.S. 1990, Idaho State University. (2000)

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Thackray, Glenn D.,* Department Chair and Professor, Geosciences. B.S. 1985, Beloit College; M.S. 1989, University of Oregon; Ph.D. University of Washington. (1994)


Thomas, Michael A.,* Associate Professor, Biological Sciences. B.S. 1991, University of Nebraska; M.S. 1994, Kansas State University; Ph.D. 2000, Pennsylvania State University. (2003)

Thompson, Kelly E., Clinical Assistant Professor, Physical and Occupational Therapy. B.S. 1990, University of New Hampshire; M.S. 2002, Belmont University. (2002)


Tokle, Joanne,* Associate 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)

Tokle, Robert J.,* Professor, Economics. B.A. 1980, University of Wisconsin-Madison; Ph.D. 1986, Iowa State University. (1986)

Trawick, Paul, Chair and Associate Professor, Anthropology. B.S. 1977, University of Oregon; M.A. 1982, University of Texas, Austin; Ph.D. 1994, Yale University. (2012)


Vallas, Arthur C., University President; Professor. B.S. 1973, University of New Hampshire; Ph.D. 1979, University of Iowa. (2006)


Vega, Jose, Assistant Professor, Accounting. B.S.B.A. 2006, University of Denver; M.B.A. 2009, Colorado State University at Pueblo; Ph.D. 2014, University of Texas at San Antonio. (2014)

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)


Weber, Carolyn,* Assistant Professor, Biological Sciences. B.A. 2004, Cornell College; Ph.D. 2009, Louisiana State University. (2012)


Weeden, Allisha M., Assistant Professor, Dietetics. B.S. 2002, Kansas State University; M.S. 2004, University of Kansas; Ph.D. 2008, Kansas State University. (2009)


Whitaker, Mary M., Clinical Professor, Communication Sciences & Disorders. B.S., 1984, University of Utah; M.S. 1986, University of Arizona; Ed.S. 1998, Idaho State University. (1986)

Williams, Brian G.,* Associate Chair and Associate Professor, Mechanical Engineering. B.S. 1990, Brigham Young University; M.S. 1991, Ph.D. 1997, Utah State University. (2002)

Williams, Charles F. (Rick),* Research Curator, Ray J. Davis Herbarium and Life Science Division Head, Idaho Museum of Natural History; Associate Professor, Biological Sciences. B.S. 1979, University of Oklahoma; M.S. 1985, University of Miami; Ph.D. 1991, University of Wisconsin, Madison. (1999)

Williams, D.J.,* Program Director and Assistant 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)


Wolter, Brent,* Assistant Department Chair and Associate Professor, English and Philosophy. B.A. 1991, Wartburg College; M.A. 1999, University of Birmingham; Ph.D. 2005, University of Wales. (2005)


Woodhouse, William M., Associate Director and Clinical Professor, Family Medicine Residency Program. B.S. 1979, University of Iowa; M.D. 1983, University of Iowa College of Medicine. (1994)


Wright, Derek, Faculty Physician, Pocatello Family Medicine Clinic. B.A. 1992, Brigham Young University; M.D. 1996, University of Utah. (2007)

Yan, Guang,* Assistant Professor, Biomedical and Pharmaceutical Sciences. B.S. 1996, M.S. 1999, Shenyang Pharmaceutical University, Shenyang, PRC; Ph.D. 2004, University of Utah. (2009)

Yang, Luobin,* Research Assistant Professor, Biological Sciences. B.S. 1992, Peking University; M.S. 2001, Marquette University; M.S. 2003, Marquette University and Medical College of Wisconsin; Ph.D. 2001, Idaho State University. (2011)

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)


York, Kevin, Assistant Professor, Music; Associate Director of Bands. B.M.E. 2001, Grand Valley State University; M.M.P 2005, Texas Tech University. (2009)

Yost, Luther, Senior Lecturer, Mathematics. B.S. 1981, Frostburg State University; M.A. 1987, University of Maryland. (1994)

Young, Glennia, Program Coordinator and Master Instructor, Health Information Technology. A.S. 1986, Boise State University; Accredited Records Technician. (1995)


Zhu, Wensheng,* Assistant Professor, Mathematics. B.S. 1997, M.S. 1995, Fudan University, China; Ph.D. 2002, Iowa State University. (2006)


Zimmerly, Lauralee, Associate Lecturer, Theatre and Dance. B.A. 1978, University of the Pacific; M.A.1990, University of California, Los Angeles. (1999)

Zollinger, Jann B., R.D.H., Clinical Assistant Professor, Dental Hygiene. B.A. 1977, Idaho State University. (1990)

Zydek, Dawid, Assistant Professor, Electrical Engineering. PgCert 2005, Coventry University, UK; M.Sc. 2005, Wroclaw University of Technology, Poland; Ph.D. 2010, University of Nevada, Las Vegas. (2011)
Faculty Emeriti

Asterisks denote members of the Graduate Faculty.

Adamcik, Barbara A.,* Professor, Pharmacy Practice and Administrative Sciences. 1985-2013

Aho, James A.,* Professor, Sociology, Social Work and Criminal Justice. 1969-2010

Akersten, William A., Associate Professor, Biological Sciences and Geosciences; Curator, Vertebrate Paleontology, Idaho Museum of Natural History. 1985-2009

Allen, Virginia B.,* Professor, Counseling. 1981-2012

Anderson, Robert C., Professor, Zoology. 1969-2007

Ashton, Carol Ann,* Associate Professor, Nursing. 2001-2011

Bain, Barbara A., Director of Undergraduate Studies and Professor, Communication Sciences and Disorders, and Education of the Deaf. 1989-2004

Balsley, Ronald D., Professor, Marketing. 1978-2005

Beebe, Thomas G., Instructor, Electronics Technology. 1957-1989

Beezhold, Wendland, Research Professor, Physics. 2000-2010

Benintendi, Wilma, Associate Professor, Education. 1967-1984

Bienly, Victor C., Instructor, Civil Engineering Technology. 1966-1993

Black, James M., Instructor, Electronics Technology. 1963-1993

Bliss, Traci, Professor, Educational Foundations. 1996-2008

Blount, Charles W., Professor, Geology. 1975-1990

Bobell, John L.V. Professor, Human Resource Training and Development. 1990-2002

Boes, Richard F.,* Professor, Accounting. 1977-2011

Booher, Shirley (Deagle), Instructor, Office Technology. 1964-1996

Bowen, Denise M.,* Professor, Dental Hygiene. 1976-2010

Bowen, Richard L., University President. 1985-2005

Bowmer, Richard G., Professor, Botany. 1961-1997

Braun, Loren, Professor, Chemistry. 1957-1989

Brown, Donald D., Professor, Art. 1956-1994

Brown, Norris C., Instructor, Diesel Technology. 1972-1997

Brownning, Jr., Wallace E., Professor, Physical Education. 1963-1990

Bryan, Clifford E., Professor, Sociology. 1971-2001


Burns, Mary Jane,* Co-Director, Women Studies Program; Associate Professor, Political Science. 1985-2006

Cantrill, Dante K.,* Professor, English. 1974-2005

Chambers, Darold, Registrar. 1961-1990

Christensen, Calvin D., Instructional Coordinator, Laser/Electro-Optics Technology. 1971-2000

Christie, Carole R., Professor, Dental Hygiene. 1979-2011

Coffland, Jack A., Professor, Education; Coordinator, Center for Accountability Systems (Education). 1992-1999

Cowles, Lois Anne, Associate Professor, Sociology, Social Work, and Criminal Justice. 1993-2003

Cresswell, Donald J., Associate Professor, Mathematics. 1968-2000

Christelow, Allan,* Professor, History. 1983-2013

Christelow, Stephanie,* Professor, History. 1990-2015

Croker, Robert E.,* Professor, Human Resource Training and Development. 1994-2012

Cullen, Carol, Instructor, Office Occupations. 1963-1990

Daniels, Christopher K.,* Professor, Biomedical and Pharmaceutical Sciences. 1988-2012

Davis, Everett Eugene (Gene), Professor, Educational Leadership; Director, Intermountain Center for Education Effectiveness. 1992-2007

Dial, Theresa Gail, Professor, Art. 1974-2008

Dickey, John, Associate Professor, Family Medicine. 1997-2015

Dolsen, Arthur, Professor, Foreign Languages. 1983-2009

Downing, Joan K., Public Services Director (equivalent rank, Professor). Library. 1969-1986

Dundas, Mary L.,* Director, Dietetics; Professor, Health and Nutrition Sciences. 1996-2009

Durschi, Ralph, Senior Instructor, Robotics and Communications. 1986-2013

Eastman, Philip, Vice President for Financial Services. 1956-1988

Edgar, Thomas E., Professor, Counselor Education. 1966-1987

Edwards, Marilyn, Instructional Program Coordinator, Culinary Arts Technology. 1966-1997

Elander, Leann, Senior Instructor, General Education. 1981-2007

Ekstrom, Grant, Instructor, Diesel/Diesel Electric Technology. 1973-1996

Enloe, Linda J.,* Associate Professor, Psychology. 1974-2007

Engbretnsen, Terry O.,* Associate Professor, English and Philosophy. 1988-2014

Falci, Kenneth T., Professor, Chemistry and Physics. 1967-1991

Farrell, Larry D.,* Professor, Microbiology. 1972-2008
Feige, Gary, Coordinator and Senior Instructor, Machining Technology. 1977-2003

Feit, Stephen S.,* Professor, Counseling. 1973-2013

Fontenelle, L. Judy, Professor, Biomedical and Pharmaceutical Sciences. 1969-1998

Ford, Lawrence C.,* Associate Vice President for Special Programs and Enrollment Management; Associate Professor, Mathematics. 1984-2009

Fortsch, David E., Senior Lecturer, Geosciences. 1974-2004

Foster, Richard H., Jr., Professor, Political Science. 1973-2008

Francis, Jr., Charles A., Associate Professor, Radiographic Science. 1987-2011

Frazier, Timothy H.,* Professor, Mass Communication. 1986-2013

Galizia, Virginia, Associate Dean, College of Pharmacy; Professor, Pharmacy Practice and Administrative Sciences. 1996-2002

Gantt, Gamewell D.,* Professor, Management. 1982-2004

Geisler, Don, Instructor, Auto Collision Repair and Refinishing. 1971-1992

George, Thom Ritter, Professor, Music. 1983-2008

Gesell, Thomas F.,* Professor, Nuclear Engineering and Health Physics. 1991-2014

Gibson, Philip J., Department Chair, Instructor, Business and Service. 1981-2000

Goff, Glen F., Instructor, Electronics Technology. 1960-1989

Goldbeck, H. Janne, Professor, English. 1976-2006

Gravatt, Darwin, Instructional Program Coordinator, Auto Collision, Repair and Refinishing. 1974-1997

Green, Joel N., Instructor, Diesel/Diesel Electric Technology. 1975-2001

Greenwood, Audrey, Professor, Foreign Languages. 1957-1978

Griffith, John S., Professor, Biology. 1977-1999

Hansen, Vaughn, Coordinator and Senior Instructor, Electromechanical Design Drafting Technology. 1970-2005

Harmon, J. Frank, Director and Research Professor, Idaho Accelerator Center; Professor, Physics. 1969-2008

Hatzenbuehler, Ronald, * Professor, History. 1972-2013


Herzog, Anita, Professor, Dental Hygiene. 1978-2008

Hewett, Beverly J.,* Clinical Assistant Professor, Nursing. 1992-2014

Hill, Linda Charlotte, Associate Professor, Mathematics. 1976-2006

Hill, Richard D.,* Professor, Mathematics. 1967-2012

Hitchcock, Leonard A., Associate University Librarian, Collection Development (equivalent rank, Professor), Library. 1984-2006

Hjelm, Victor S. “Butch,” Dean, College of Arts and Sciences; Professor, Political Science. 1968-2001

Hobbs, Dan L., Associate Professor, Radiographic Science. 1999-2015

Hodges, Kathleen O.,* Professor, Dental Hygiene. 1979-2013

Hofman, Cornelius A., Professor, Economics. 1960-1997

Holmer, Richard N.,* Professor, Anthropology. 1983-2011

Holte, Karl E., Professor, Botany; Curator, Museum. 1965-1997

House, Edwin W., Chief Research Officer; Professor, Physiology. 1966-2004

House, Janet G., Associate Professor, Mass Communication. 1985-2002

Huck, Wilbur, Associate Professor, English. 1957-1990

Hughes, Scott S.,* Interim Dean, College of Arts and Sciences; Professor, Geosciences. 1991-2010


Hurley, Stephen C., Professor, Pharmacy Practice and Administrative Sciences. 1976-2006

Inouye, Richard S.,* Professor, Ecology. 1987-2010

Isaacson, Eugene I., Professor, Biomedical and Pharmaceutical Sciences. 1969-1998

Jacobson, Grace, Associate Professor, Nursing. 1981-2002

Jenkins, Robert M., Coordinator and Senior Instructor, Automotive Technology. 1974-2005

Jenkins, Susan J.,* Professor, Educational Foundations. 1988-2013

Jensen, Jay, Dean of Students. 1956-1989

Joe, Victor C., Department Chair and Professor, Psychology. 1969-2003

Johnson, Frank J., Instructor, Civil Engineering Technology. 1966-1993

Johnson, Mark A., Professor, Management. 1987-2009

Jolly, James P.,* Professor, Management. 1982-2015

Jones, Gordon F., Associate Dean, School of Applied Technology. 1968-1995

Jue, Sandra G., Clinical Professor, Pharmacy Practice and Administrative Services. 1973-2012

Kawamura, Carole J., Assistant Professor, Dental Hygiene. 1975-2001

Kearns, Richard L.,* Director of Undergraduate Programs and Professor, Health and Nutrition Sciences. 1988-2004

Kidd, Paul F., Instructor, Graphic Arts. 1965-1995

Kijinski, John L., Dean, College of Arts and Sciences; Professor, English and Philosophy. 1985-2007

Kilpatrick, John A., Professor, Management. 1977-2006
King, Kathleen, Associate Professor, English. 1984-2007
King, William L., Professor, English and Philosophy. 1960-1994
Kirkpatrick, David, Professor, Military Science, Director of Housing. 1951-1955, 1958-1981
Klug, Beverly J., Associate Professor, School Psychology, Literacy, and Special Education. 1985-2014
Kovacs, Rudolph S.,* Professor, Art and Pre-Architecture. 1980-2012
Kratz, Lawrence J.,* Professor, Mathematics. 1966-2010
Kritsky, Delane C., Associate Dean, College of Health Professions; Professor, Health and Nutrition Sciences and Biological Sciences. 1974-2008
Kunze, Jay.,* Professor, Nuclear Engineering and Health Physics. 1995-2013
Lang, Patrick M., Professor, Mathematics. 1985-2012
Lawson, Jonathan N.,* Professor, Educational Leadership and Instructional Design. 1995-2013
Laurence, Dennis, Professor, English and Philosophy. 1971-1992
LeBlanc, Ronald P., Professor, Marketing; Adjunct Faculty, Sport Science and Physical Education. 1980-2006
Lerch, Robert, Professor, Education. 1971-1995
Linder, Allan, Professor, Biological Sciences. 1963-1988
Lloyd, Arthur P., Professor, Counseling. 1967-2001
Lloyd, Marcia L., Professor, Dance. 1977-2001
Loebs, Bruce, D.,* Professor, Communication, Media, and Persuasion. 1969-2015
Longmore, Dean R., Professor, Department of Finance. 1978-2001
Lu, Joseph, Professor, Libraries. 1972-1992
Luckey, Angela S., Associate Professor, Educational Foundations. 1996-2009
Marcum, R. Laverne, Professor, Education. 1969-1984
Marley, Bert, Professor, History. 1967-1989
Martin, Anthony, Professor, Art. 1977-2015
Martindale, Charlene, Associate Professor, English/Instructor-Coordinator, Business Communication. 1970-1999
Matteson-Howell, Janice, Chair, Technical Department. 1984-2007
Matthews, Leroy J., Professor, Psychology. 1968-2000
Mauch, John E., Professor, Journalism. 1971-1999
Maughan, Ralph B.,* Professor, Political Science. 1971-2007
McAleese, Willis J.,* Professor, Health Education and Promotion. 1989-2014
McCune, Joan H., Professor, Microbiology. 1980-2001
McCune, Ronald W., Professor, Biochemistry. 1970-2004

McGee, Shanna, Professor, Psychology. 1964-1985
McLaughlin, Diana, Associate Department Chair; Assistant Professor, Nursing. 1987-2007
McRoberts, Jacqueline, Associate Professor, Nursing. 1981-2005
Merrill, Clifton L., Master Instructor, Civil Engineering Technology. 1985-2011
Merrill, Donald, Master Instructor, College of Technology. 1971-2008
Millner, William, Professor, Business. 1971-1983
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
Naidu, D. Subbaram,* Professor, Electrical Engineering and Computer Science. 1990-2014
Newsome, Jack D.,* Associate Professor, Educational Foundations. 1997-2011
Newsome, Julie Renee,* Associate Professor, Educational Foundations. 1998-2013
Nickisch, Craig W., Professor, Foreign Languages. 1988-2004
Nilson, Douglas C., Associate Professor, Political Science. 1989-2009
Nitse, Philip S.,* Professor, Marketing. 1993-2010
Noakes, Sandra D., Assistant Professor, Physical Education. 1966-2002
Nunn, Gerald, D.,* Professor, School Psychology Literacy and Special Education. 1996-2011
Ore, H. Thomas, Professor, Geology. 1963-1997
Owens, John “Jack” B.,* Professor, History. 1975-2011
Paarmann, Carlene S.,* Professor, Dental Hygiene. 1976-2011
Park, Pamela, Professor, Languages and Literature. 1985-2015
Parker, Barry R., Professor, Physics. 1967-1997
Parker, Stephen K., Associate Professor, Mathematics. 1972-2002
Pawar, Sheelwant B., Professor, Management. 1967-1999
Pehrsson, Robert S.,* Professor, Teacher Education. 1980-2003
Pein, Deborah M., Assistant Professor, General Education. 1988-2011
Peña, Sally J.,* Professor, Educational Foundations. 1990-2010
Pierson, Donald S.,* Professor, Sociology, Social Work and Criminal Justice. 1985-2011
Plewa, Jr., Franklin J.,* Professor, Accounting. 1984-2013
Pridgy, Kathleen S., Senior Instructor, Office Technology. 1976-2005
Pumphrey, Lela "Kitty" D.,* Professor, Accounting. 1988-2006
Rankin, Roger A.,* Professor, Educational Foundations. 1981-2011
Reis, Priscilla R.,* Associate Professor, Accounting. 1994-2013
Renn, Nancy, Clinical Assistant Professor, Nursing. 1993-2012
Roberts, Mark W.,* Professor, Psychology. 1977-2015
Ronald, Bruce P., Professor, Chemistry. 1968-2001
Rose, Fred L., Professor, Biological Sciences. 1969-2000
Rost, Robert, Senior Instructor, Trade and Industrial Department. 1972-2007
Rucker, Jack, Director, School of Vocational-Technical Education. 1955-1976
Ruckman, JoAnn S., Co-Director, Women Studies Program; Professor, History. 1974-2001
Sagness, Richard L., Director, Office of Clinical Experiences and Student Services; Professor, Teacher Education. 1979-1999
Schow, H. Wayne, Professor, English and Philosophy. 1967-1999
Schow, Ronald L., Professor, Audiology. 1975-2007
Schwendig, Warren Lee, Professor, Marketing. 1968-2003
Scott, Darrell F., Assistant Dean, College of Business; Senior Lecturer, Marketing. 1970-2007
Seeley, Rodney R.,* Professor, Physiology. 1973-2008
Sharp, William T., Professor, Pharmacy Practice and Administrative Sciences. 1975-2000
Smedley, Thayne, Professor, Audiology. 1983-2001
Smith, Denzell S., Professor, English and Philosophy. 1972-1991
Smith, Jill M., Assistant Professor, Accounting. 1986-2009
Sorensen, David N.,* Professor, Speech Language Pathology. 1985-2012
Spadafore, Gerald J., Professor, Teacher Education. 1969-1999
Spall, Richard D., University Ombudsman; Professor, Pathology. 1981-2003
Spiegel, Kathleen, Clinical Professor, Clinical Laboratory Science. 1991-2007
Standley, Mike, Director of Registration and Records. 1971-1999
Stanek, Alan E., Chair and Professor, Music. 1976-2001
Stenson, Carol M., Professor, Special Education. 1978-2003
Stephens, Trent D., Professor, Biology. 1981-2011
Stocks, Anthony, Chair and Professor, Anthropology. 1979-2006
Stratton, William E.,* Professor, Management. 1974-2011
Streubel, Donald P., Professor, Biology. 1974-1999
Strommen, Dennis, Department Chair and Professor, Chemistry. 1992-2004
Sutcliffe, Roy M., Instructor, Electronics Technology. 1958-1989
Sutter, Jr., E. John, Professor, Chemistry. 1971-2004
Swanson, Merwin, Professor, History. 1972-2002
Sweat, Robert C., Coordinator and Senior Instructor, Computer/Business Equipment Technician Program. 1978-2004
Swetnam, Susan H.,* Professor, English and Philosophy. 1979-2013
Tate, Paul D., Dean, Graduate School; Professor, English and Philosophy. 1976-2006
Trinklein, Michael J., Professor, Mass Communication. 1984-2004
Trost, Charles H., Professor, Biological Sciences; Curator, Museum. 1968-2000
Tullis, James, Professor, Biological Sciences. 1965-1996
Urfer, Alexander G.,* Professor, Physical and Occupational Therapy. 1977-2011
Vegors, Stanley, Professor, Physics. 1958-1992
Vittetoe, Dennis, Master Instructor, Electronic Systems Technology. 1976-2003
Wallber, M. Josara, Clinical Associate Professor, Communications Sciences and Disorders. 2006-2014
Walsh, Dennis M., Professor, English and Philosophy. 1979-2004
Walsh, Mary Ellen,* Professor, English and Philosophy. 1971-2002
Warnke, Janet Lynn, Assistant Librarian (equivalent rank, Professor), Library. 1978-2012
Watters, Ronald, Senior Lecturer, Sport Science and Physical Education. 1974-2007
Watts, Robert T., Associate Professor, Computer Information Systems. 1978-1999
Wells, Gary R.,* Professor, Finance. 1965-2009
Weston, Audrey, D.,* Professor, Speech Language Pathology. 1990-2005
Wiegand, Gayl H., Professor, Chemistry. 1965-2004
Willer, Janene. Clinical Associate Professor, Communication Sciences and Disorders. 1990-2011

Wilson, Albert E., Professor, Engineering and Nuclear Science. 1966-1995

Wissa, Maher F., Professor, Geomatics Technology. 1993-2008
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